

Exhibit No. 413

Exhibit No.:
Issue(s):

413

Rate of Return (ROR)/
Return on Equity (ROE)/
Capital Structure
Murray/Direct
Public Counsel
GR-2021-0241

Witness/Type of Exhibit:
Sponsoring Party:
Case No.:

DIRECT TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

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

FILE NO. GR-2021-0241

**

**

**Denotes Confidential Information
that has been Redacted**

September 3, 2021

PUBLIC

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

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

AFFIDAVIT OF DAVID MURRAY

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

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

1. My name is David Murray. I am a Utility Regulatory Manager for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my direct testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

David Murray

David Murray
Utility Regulatory Manager

Subscribed and sworn to me this 3rd day of September 2021.



TIFFANY HILDEBRAND
My Commission Expires
August 8, 2023
Cole County
Commission #16637121

Tiffany Hildebrand

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2023.

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DIRECT TESTIMONY
OF
DAVID MURRAY
UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI
FILE NO. GR-2021-0241

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 behalf of the OPC.
9

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

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

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

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

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

18 A. I will address a fair and reasonable allowed return on common equity (“ROE”) and a fair
19 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 for its gas distribution operations should be set at 9.25%,
4 but at the very least no higher than 9.5% considering local gas distribution companies
5 ("LDCs") have recently traded at a discount to electric utility companies. Ameren
6 Missouri's authorized common equity ratio should be more consistent with Ameren
7 Corp.'s actual consolidated common equity ratios, which have been around 45% recently
8 after excluding short-term debt.

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

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

14 I recommend that the Commission set Ameren Missouri's allowed ROE for its gas
15 distribution operations at 9.25%, which is consistent with The Empire District Electric
16 Company's ("Empire") authorized ROE. Although utility industry capital market
17 conditions indicate an increase in the cost of common equity ("COE") since the
18 Commission set Empire's ROE at 9.25%, the COE for regulated electric and local natural
19 gas distribution utilities (LDCs) is still lower at approximately 6.5% to 7.0%. Setting
20 Ameren Missouri's authorized ROE for its natural gas distribution operation at
21 approximately 9.25% allows it to fairly compensate Ameren for its investment in the
22 Ameren Missouri gas distribution system. However, due to the fact that LDC stocks had
23 been trading at a discount to electric utilities, I consider an authorized ROE of as high as
24 9.5% as reasonable for this case. Although my recommended ROE allows Ameren Corp
25 to create value for its shareholders through investment in Ameren Missouri's gas
26 distribution operations, it should be noted that because the Illinois Commerce Commission
27 ("ICC") authorized a 9.67% ROE in its 2020 rate case, Docket No. D-20-0308, Ameren
28 Corp will have more incentive to invest in its Ameren Illinois gas distribution operations,

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

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

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

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

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

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

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

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

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

1 **FAIR RETURN ON COMMON EQUITY**

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

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

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

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

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

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

³ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1943); *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 43 S.Ct. 675, 67 L.Ed. 1176 (1923).

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

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

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

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

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

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

1 **Q. Ameren Missouri also filed a rate case for its electric utility system, Case No. ER-**
2 **2021-0240. How do you plan to approach your recommended ROR for Ameren**
3 **Missouri's natural gas distribution operations compared to the electric utility**
4 **operations?**

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

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

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

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

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

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

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

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

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

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

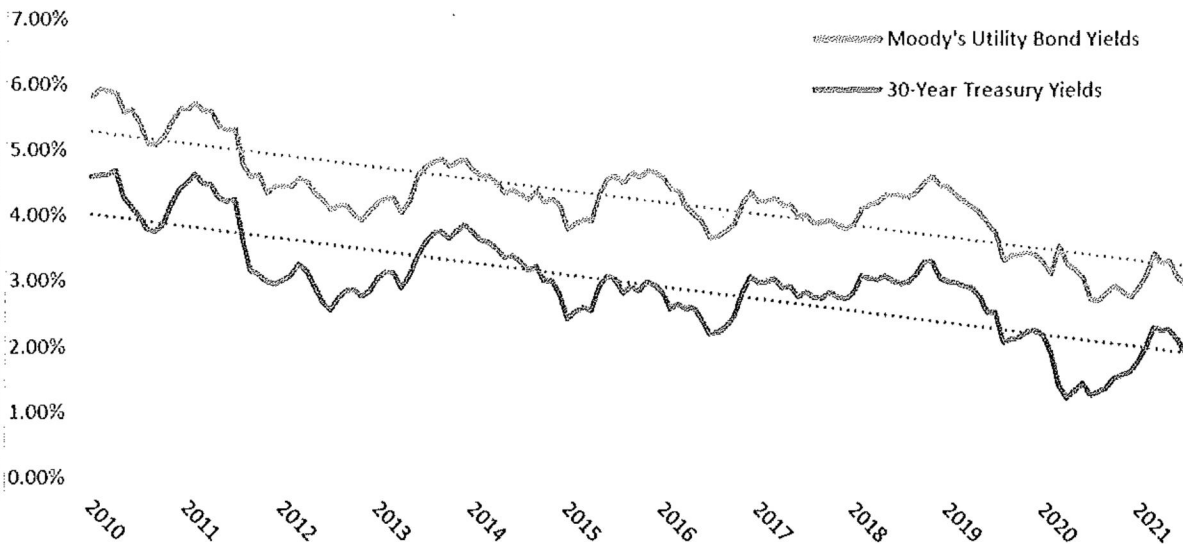
7 A. I have consistently recommended the Commission reduce Ameren Missouri’s allowed
8 ROE to 9.25% for its electric utility operations from its current authorized ROE of 9.53%.
9 Although the COE has varied over much of Ameren Missouri’s past rate cases, with it
10 reaching its all-time low right before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

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

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

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

3 A. Current investment grade utility bond yields are lower.⁵ The below graph shows long-term
4 bond yields since January 1, 2010, which captures the prolonged period of lower long-term
5 interest rates post the recession/financial crisis of 2008/2009. While the early stages of
6 lower long-term interest rates in the first half of this decade were considered by some as
7 potentially anomalous because of the Federal Reserve Bank's ("Fed") quantitative easing
8 ("QE") programs⁶ through the end of 2013, since that time, long-term interest rates have
9 continued an overall declining trend.



10
11 Average utility long-term bond yields dropped to modern all-time lows in the latter
12 half of 2020 - levels not experienced since the late 1940s and early 1950s (I am not aware
13 of a publication at the time, such as Regulatory Research Associates, that would provide
14 information on allowed returns to provide guidance for current decisions). However, they

⁵ S&P rates Ameren and Ameren Missouri investment grade at BBB+; Moody's rates Ameren and Ameren Missouri investment grade at Baa1.

⁶ QE involved three rounds of the Fed's direct intervention in bond markets beyond just lowering the Fed Funds rate. The Fed's QE programs had the express intent of reducing long-term interest rates.

1 have recently moderated to levels consistent with shortly before the onset of the COVID-
2 19 pandemic, which until 2020, had been the lowest levels achieved since the 1960s.

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

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

8
9 **8 Therefore, changes in utility stock valuation levels typically have a strong inverse
10 correlation to changes in bond yields, i.e. as bond yields decline, utility stock prices
11 increase.

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

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

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

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

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

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

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

8 **A.** Yes. First, I should note that P/E ratios are often used to evaluate the relative cost to the
9 investor to buy a share of earnings and the potential growth of those earnings. Also, for
10 context regarding the favorableness of utility P/E ratios over the past several years, utility
11 P/E ratios averaged 14.4x since 1995.⁹ A graph of the P/E ratios for the LDC and electric
12 utility industry follows:



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

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



11 As is graphically illustrated, LDC's traded at a significant premium to electric
12 utilities for the five-year period, January 1, 2015 through December 31, 2019. The average
13 P/E multiple was approximately 3x higher over this period. However, beginning in early
14 2020 and until very recently, LDCs traded at a discount to electric utilities. LDCs traded
15 at an average P/E that was 1.6x lower than electric utilities for all of 2020. Not until

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

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

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

6 ** _____
7 _____
8 _____
9 _____ **

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

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

15 Utilities and healthcare are among the best-performing groups in the S& P 500 so
16 far this quarter, with gains of 7.8% and 6.6%, respectively, compared with a 4.9%
17 rise in the broad stock index. Big winners include utility NextEra Energy Inc.,
18 which is up 14% this quarter, while shares of medical company Danaher Corp. are
19 up 19%...

20 ...The S& P 500 has advanced 20% this year and set 52 record closes—its highest
21 number of records in a calendar year through the end of August, according to
22 Dow Jones Market Data. Valuations have edged lower this year as earnings
23 soared but remain at historically high levels...

24 ...Healthcare stocks have relatively attractive valuations, some investors said.
25 The sector traded late last week at about 18 times its projected earnings over the
26

¹⁰ LDC P/E ratios increased for a short period of time around July 2021 due to some extraordinarily high P/E ratios for Northwest Natural Gas Company. This appears to have been an aberration and should not be considered reflective of investors' view of a fair P/E multiple for the LDC industry.

¹¹ Ameren Board of Directors Discussion Materials, Goldman Sachs & Co. LLC, December 11, 2020, p. 3.

1 next 12 months, compared with about 21 times for the S& P 500, according to
2 FactSet.

3
4 The utilities group, meanwhile, traded at 20 times projected earnings, a more
5 modest discount to the broad market, but boasts a dividend yield of 3%—more
6 than double that of the S& P 500.¹²

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

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

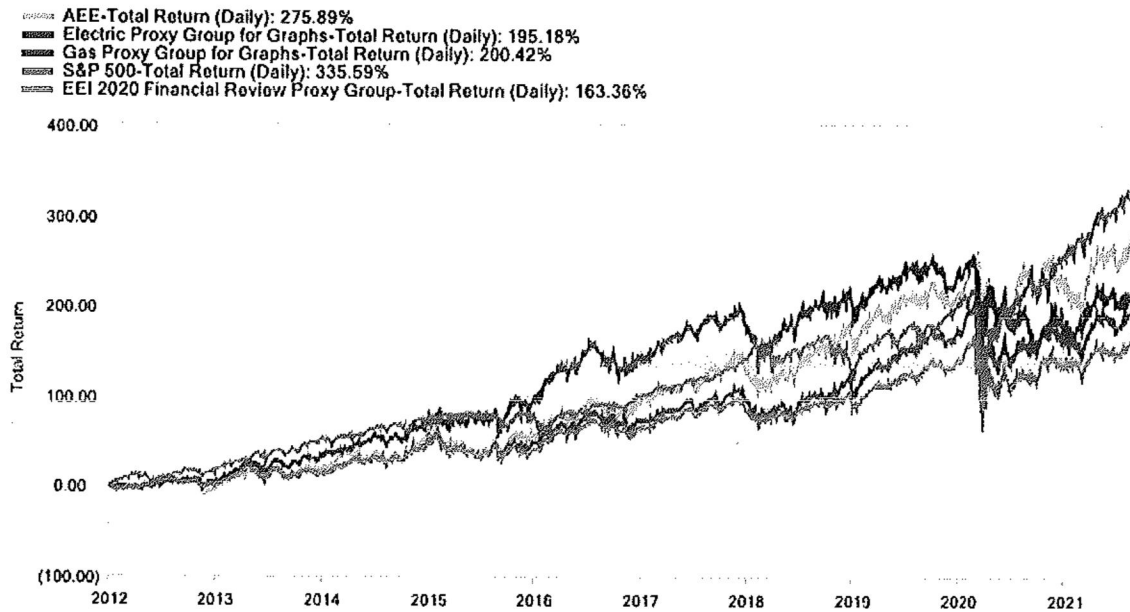
19 A. Yes. While investors are accustomed to the practice of commissions allowing ROEs higher
20 than the COE, they price in the potential that commissions will reduce allowed ROEs due
21 to very low long-term interest rates. This is especially true the longer the U.S. capital
22 markets experience a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

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

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

¹² Karen Langley, "Investors Signal Cautious Outlook," Wall Street Journal, August 30, 2021, page A1 and A2.

¹³ Durgesh Chopra, et. al, "Utilities vs Inflation," August 29, 2021, Evercore ISI. Neil Kalton, et.al., "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.



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

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

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

3 A. Yes. In Ameren Missouri's 2019 rate case, I discussed the fact that Ameren Missouri
4 issued a 30-year bond on October 1, 2019, with a coupon rate of 3.25%. At the time, this
5 was the lowest coupon rate I had ever observed on a 30-year utility bond in the 20-year
6 period in which I have been sponsoring ROR testimony. After searching the Commission's
7 archives at the time, I determined the last time Ameren Missouri had been able to issue a
8 30-year bond at a cost consistent with its recent issuance was in 1952.

9 Since Ameren Missouri's 2019 rate case, it issued a 30-year bond at an even lower coupon
10 rate. On October 9, 2020, Ameren Missouri issued a 30-year bond with a coupon rate of
11 2.625% (CUSIP: 906548CS9). Although the yield-to-maturity for over-the-counter trades
12 increased to as high as 3.3% in the spring of 2021, these bonds have been trading close to
13 their original coupon rate for most of July and August 2021 (see the below chart).

Price/Yield Chart

Price Chart

Yield Chart

10/09/2020

08/30/2021

Zoom: 5D 1M 3M YTD 1Y 3Y 5Y 10Y Max

Yield



1

14

2

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

3

4

5

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

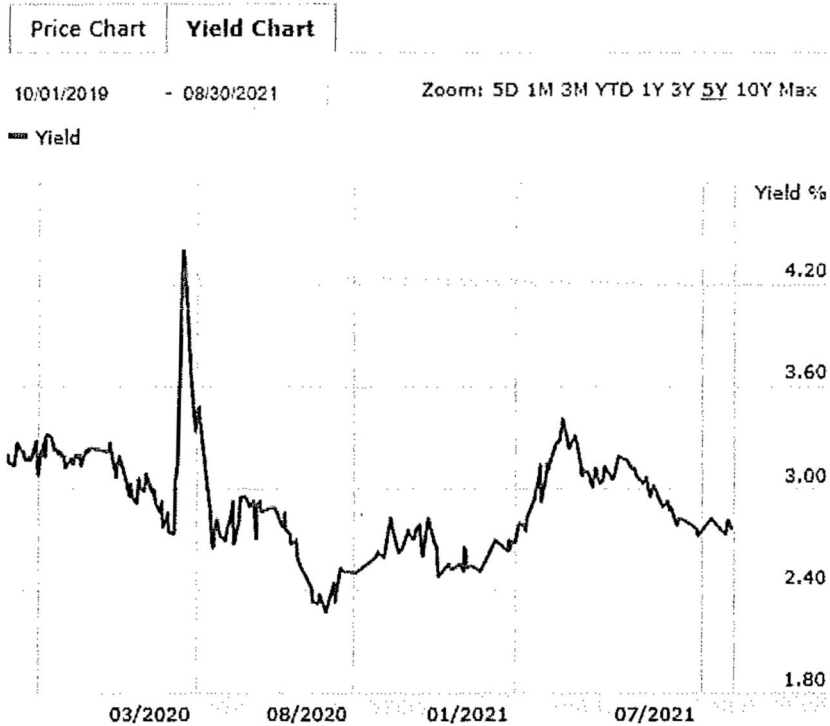
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¹⁴ <http://finra-markets.morningstar.com/BondCenter/BondDetail.jsp?ticker=C938553&symbol=AEE5056585>

Price/Yield Chart



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COST OF EQUITY METHODS

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

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

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

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

3 A. Being that the objective of a ROR witness is to emulate investors' approaches to analyzing
4 and making investment recommendations as it relates to investing in utility stocks, I have
5 made it a priority to review and analyze how equity research analysts determine a utility
6 stock price estimate in practice. This has allowed me to test the theory of cost of capital
7 estimation in utility ROR testimony as it compares to how utility stocks are actually valued.
8 I have discovered investment analysts do use multi-stage DCF approaches to estimate
9 fundamental values of utility stocks, and/or they use relative valuation techniques that
10 compare a company's P/E ratios to averages for the industry and/or potentially a more
11 tailored subset of peer companies. In my experience, professional equity ("Wall Street")
12 analysts project long-term CAGR in EPS to determine whether a company's P/E ratio
13 deserves a premium or a discount to its peers. Wall Street analysts do not use these
14 estimated long-term CAGRs in EPS for purposes of projecting a perpetual dividend growth
15 rate, as some ROR witnesses suggest. When performing an absolute valuation analysis,
16 such as a DCF/DDM, Wall Street analysts assume rational perpetual growth rates in the
17 2.5% to 3.3% range for electric utility companies and LDCs. Finally, and most relevant to
18 the task at hand, they estimate utilities' COE to be in the 6% range.¹⁶

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

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

¹⁶ Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.

¹⁷ <https://www.amereninvestors.com/company-info/analyst-coverage/default.aspx>

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

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

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

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

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

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

1 the **

2 ** As Ameren Corp's EPS growth transitions to a sustainable growth rate by
3 2035, I appropriately increased Ameren Corp's dividend payout ratio to consider the fact
4 that it would not need to retain as much earnings for reinvestment. For my base case
5 scenario, this caused Ameren Corp's DPS to grow at a CAGR of 9.25% for the period 2032
6 through 2035, as compared to a 3.43% CAGR in EPS for the same period.

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

9 **A.** Yes. Through recent investment communications and actions, Ameren Corp has signaled
10 that it plans to increase its dividend in line with its long-term CAGR in EPS guidance of
11 6% to 8%.¹⁹ Ameren Corp has also communicated to investors that it plans to increase
12 rate base at a CAGR of approximately 8% through 2025 by investing \$17.1 billion.
13 Ameren Corp has also communicated that it anticipates an additional \$23 billion of
14 regulated investment opportunities through 2030 for a total of \$40 billion.²⁰ But these
15 ramped up investment programs are finite and will eventually return to a maintenance level
16 of capital investment, similar to how it treated investment in Ameren Missouri before it
17 was granted the legal authority to use PISA. Once the Company achieves this steady state,
18 then it should gravitate toward a dividend payout ratio that ensures it will have sufficient
19 internal equity capital to fund its investments. Using the maintenance level of capital
20 expenditures Ameren Corp made in Ameren Missouri as a proxy, a targeted dividend
21 payout ratio of approximately 66.67% is consistent with this level of investment.

18 **

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

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

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

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

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

16 **Q. ****

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18 **A.**

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²¹ Staff Cost of Service Report, Case No. ER-2011-0028, p. 18.

²² *Id.*

²³ Discussed throughout this testimony.

²⁴ Durgesh Chopra, et. al, "Q2 2021 Earnings Recap," August 8, 2021, Evercore ISI. Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.

²⁵ Ameren Dividend Policy Considerations, Ameren Finance Committee, October 2017, p. 5-10.

1 Q. ** _____

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3 A. _____

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

9 A. This is fairly consistent with the perpetual growth rates used for purposes of estimating
10 utility stock prices. For example, Evercore ISI uses a perpetual growth rate of 2.5% in its
11 3-stage DDM analyses of electric utility stocks.²⁷ Wells Fargo uses an average perpetual
12 growth rate of around 3%.²⁸

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

16 A. Based on Ameren Missouri's rate base through the true-up period, December 31, 2019, in
17 the 2019 rate case,²⁹ Ameren Missouri's CAGR in its rate base has been in the range of
18 2.2% to 3% since the 2010 to 2011 time period. This further supports a rational expected
19 terminal growth rate when the utility industry is maintaining its system to ensure safe and
20 reliable service.

²⁶ Ameren Board of Directors Discussion Materials, Goldman Sachs & Co. LLC, December 11, 2020, p. 3.

²⁷ *Id.*

²⁸ *Id.*

²⁹ Case No. ER-2019-0335, Laura Moore Direct Testimony, July 3, 2019, p. 18

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

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

10 **PROXY GROUP COST OF EQUITY**

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

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

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

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

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

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

13 A. Yes, but my analysis was more generic because of my lack of familiarity of intimate details
14 of each of the companies. However, I applied the same principles as I did when applying
15 the multi-stage DCF to Ameren Corp. For the first stage (August 31, 2021 through June
16 30, 2025) I used Wall Street analysts’ consensus DPS estimates to the extent they were
17 available. For the second stage (June 30, 2025 through June 30, 2035), I allowed for a
18 gradual decline from Wall Street analysts’ projected 5-year CAGR in EPS to a sustainable
19 perpetual growth rate of 3% starting in June 30, 2035. In order to estimate investors’
20 anticipated annual DPS over the second stage, I determined consensus analysts’ estimated
21 dividend payout ratios as of 2025. I then allowed the dividend payout ratios to gradually
22 converge to a sustainable payout ratio of 66.67% starting in 2035. This payout ratio is
23 consistent with the constant/sustainable-growth DCF theory that requires DPS, EPS and
24 book value per share (“BVPS”) to grow in perpetuity at the same rate. This payout ratio is
25 consistent with the proportion of earnings utility companies should retain to sustain a 3%
26 growth rate at a 9% book ROE.

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

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

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

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

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

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

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