

## Exhibit No. 243

# MISSOURI PUBLIC SERVICE COMMISSION

## STAFF REPORT

### COST OF SERVICE



UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

GENERAL RATE CASE

CASE NO. GR-2021-0241

*Jefferson City, Missouri  
September 2021*

\*\* Denotes Confidential Information \*\*

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UNION ELECTRIC COMPANY,  
d/b/a AMEREN MISSOURI**

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1 **STAFF’S COST OF SERVICE REPORT OF**

2 **UNION ELECTRIC COMPANY,**  
3 **d/b/a AMEREN MISSOURI**

4 **Case No. GR-2021-0241**

5 **I. Executive Summary – Background and Staff Recommendations**

6 **A. Background**

7 On March 31, 2021, Union Electric Company d/b/a Ameren Missouri  
8 (“Ameren Missouri”) filed a minimum filing letter, supporting direct testimony and certain  
9 tariff sheets consisting of gas rate schedules designed to increase its gas base rate annual  
10 revenues by approximately \$9.4 million exclusive of applicable gross receipts, sales, franchise  
11 or occupational fees or taxes, based on a 9.8% return on equity. According to Ameren Missouri,  
12 this filing is driven by multiple factors. These include incorporating into rate base investments  
13 needed to maintain and improve the safety of the distribution system since the last gas general  
14 rate case (File No. GR-2019-0077). Another driver for the filing of this general rate case is the  
15 Company’s agreement in its last gas general rate case to file its next gas general rate case  
16 concurrently with the filing of its next electric general rate case.

17 Ameren Missouri filed its rate case using a test year twelve-month period ending  
18 December 31, 2020 and proposed adjustments to its case reflecting anticipated changes through  
19 the true-up period of September 30, 2021, including those items listed in the *Jointly Proposed*  
20 *Procedural Schedule and Procedures*. These dates were adopted by the Commission in its  
21 *Order Setting Procedural Schedule and Adopting Test Year*.

22 Ameren Missouri provides natural gas service to 134,809 customers in Missouri<sup>1</sup> and  
23 has service territory in central, eastern, and southeastern Missouri. Ameren Missouri last sought  
24 a general change in its natural gas retail rates when it filed a request for an interim rate reduction  
25 of \$1.94 million to reflect the effects of the Tax Cuts and Jobs Act of 2017. Ameren Missouri  
26 also filed a tariff to increase its revenues and implement a general rate case a \$4.26 million  
27 annual increase on December 3, 2018 in Case No. GR-2019-0077. On December 14, 2018,  
28 Ameren Missouri and the Commission’s Staff submitted a stipulation and agreement regarding

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<sup>1</sup> According to GR-2021-0240 Minimum Filing Requirements, Schedule 3, page 1.

1 Ameren Missouri's proposed interim rate reductions. The agreement was to reduce rates by  
2 \$1.94 million on an annualized basis pending the outcome of the general rate proceeding. On  
3 December 22, 2018, the Commission approved the interim rate reduction to become effective  
4 January 2, 2019. The interim rate decrease was refunded to customers until the Commission  
5 Order approving a unanimous stipulation and agreement filed by the parties on July 22, 2019  
6 in that proceeding, Ameren Missouri was granted an annual rate decrease of \$1 million,  
7 August 21, 2019.

8 *Staff Expert/Witness: Lisa M. Ferguson*

9 **B. Staff's Revenue Requirement Recommendation**

10 As it pertains to the general rates in the instant case, Staff has conducted a review and  
11 investigation of all cost of service components (capital structure and return on rate base,  
12 rate base, operating revenues and expenses) that comprise the cost of service calculation and  
13 revenue requirement recommendation for Ameren Missouri's gas operations.

14 Staff's recommended revenue requirement for Ameren Missouri based upon a test  
15 year of twelve months ending December 31, 2020, including true-up estimates through  
16 September 30, 2021 is \$3,834,752, at Staff's recommended 9.5% mid-point return on equity as  
17 more specifically explained below. The impact of Staff's recommended revenue requirement  
18 on each of Ameren Missouri's rate classes will be discussed in Staff's rate design and class cost  
19 of service report, to be filed September 17, 2021.

20 *Staff Expert/Witness: Lisa M. Ferguson*

21 **C. Ameren Board of Directors and Board Committee Meeting Documentation**

22 Ameren Corporation ("Ameren") has a board of directors that oversees all of Ameren's  
23 affiliate operations and Ameren Missouri also has a board of directors that meets periodically.  
24 Ameren's and Ameren Missouri's boards have board meeting minutes that Staff reviews.  
25 Ameren also has several board committees that monitor different aspects of corporate business  
26 and then report to the Board. These committees are:

- 27 • Audit & Risk
- 28 • Finance
- 29 • Human Resources



- 1 • Nominating & Corporate Governance
- 2 • Nuclear & Operating

3 In addition, Ameren also has different divisions of its employees based on their level of  
4 employment within the organization. Below are the teams listed from higher level employees  
5 to lower level employees:

- 6 • ELT – Executive Leadership Team
- 7 • SLT – Senior Leadership Team
- 8 • ALT – Ameren Leadership Team

9 The Boards, the Committees, and the Teams all meet on a cyclical basis, some more  
10 often than others. Each of these groups have documentation, presentations, meeting minutes,  
11 etc. that contain discussions and important information regarding business operations and plans  
12 of the companies.

13 Historically, Staff has requested and has viewed this documentation as part of its audit  
14 during a general rate case proceeding. This has taken Staff an average of 3-4 weeks to get  
15 through all of the documentation, if timely provided, depending on how long it has been  
16 between Ameren Missouri's rate case proceedings. There is only one Ameren employee who  
17 has access to all of the board documents provided to Ameren Missouri's legal team for review  
18 prior to Staff receiving the documents for analysis and possible data request issuance. There  
19 have been times recently that this Ameren employee was unavailable. With the statutory  
20 limitation of time to process Ameren Missouri's rate cases and the size of the utility and number  
21 of items generally at issue in rate cases, Staff requests that these documents be provided to Staff  
22 upon Staff's request at any point, such as between general rate case proceedings. This will  
23 allow Staff the time to log the items reviewed and allow for more efficient issuance of data  
24 requests during the limited review time of a general rate case proceeding.

25 Staff recommends that the Commission order Ameren and Ameren Missouri to  
26 continually maintain and provide to Staff upon Staff's request all board, committee, and  
27 team documentation, presentations, etc. between general rate case proceedings. Staff is  
28 aware of other utilities regulated by this Commission that allow this method for Staff review.

1           This will assist Staff in conducting a quality and timely review of Ameren Missouri's  
2 requests in general rate case proceedings.

3 *Staff Expert/Witness: Lisa M. Ferguson*

4           **D. COVID AAO Cost Recovery**

5           In the Non-Unanimous Stipulation and Agreement filed in Case No. GU-2021-0112, in  
6 which the Commission approved on March 10, 2021, the parties agreed to an accounting  
7 authority order (AAO) in which Ameren Missouri was allowed track and defer into a regulatory  
8 asset the following costs beginning March 1, 2020 until March 31, 2021:

- 9           1. New or incremental, direct or allocated, Ameren Missouri operating and  
10 maintenance expense related to protecting Ameren Missouri employees and  
11 customers, and Ameren Services Company employees, as follows:

- 12           i. Additional cleaning of facilities and vehicles;  
13           ii. Personal protective equipment (i.e. masks, gloves, sanitizing sprays,  
14 temperature testing, face shields, etc.);  
15           iii. Technology upgrades and associated contract labor directly related to  
16 enabling Ameren Missouri and Ameren Services employees to work from  
17 home, provided that such deferred costs shall not extend to costs normally  
18 incurred by the employee, including internet connectivity at the home and  
19 cellular phones and service. In addition, one-half of the \$62 per month  
20 stipend paid to employees domiciled in Illinois related to the requirement  
21 that they work from home during the Pandemic shall be deferred;  
22           iv. Employee sequestration preparation costs (and employee sequestration costs  
23 if that become necessary).

- 24           2. Write-offs of bad debt expense, net of any recoveries of debt that was written-off to  
25 the extent cumulative write-offs exceed \$471,863;  
26           3. COVID-19 related customer communication costs, including production,  
27 distribution, printing, and postage;  
28           4. Expenses for COVID-19 related temporary operating centers, security for  
29 equipment and supplies at such temporary operating centers, and temporary toilet  
30 and trailer rentals at these temporary operating centers;

1 5. Mileage or rental vehicle costs for employees who no longer share service vehicles  
2 due to COVID-19; and

3 6. Waived late payment and reconnection fees (foregone revenues) up to \$349,712.

4 Ameren Missouri also agreed to track and record operating cost reductions in a separate  
5 regulatory liability. The operating costs reductions that were to be tracked and netted against  
6 deferred costs are as follows:

7 1. Travel expense (hotels, airfare, meals, entertainment) (net of any cancellation cost  
8 for travel cancelled due to COVID-19);

9 2. Training expense;

10 3. Office supplies;

11 4. Utility service provided to facilities leased or owned by Ameren Missouri;

12 5. Staffing reductions;

13 6. Reduced employee compensation and benefits;

14 7. Any taxable net operating loss that is carried back to previous tax years per the 2020  
15 Coronavirus Aid, Relief, and Economic Security (CARES) Act; and

16 8. Any federal, state, or local assistance Ameren Missouri directly receives related to  
17 COVID-19 relief, and any federal, state, or local assistance Ameren Missouri  
18 receives through an affiliate, directly or by allocation.

19 Staff used the base amounts savings that the signatories to the stipulation agreed to for the  
20 following items:

21 1. Travel, training and office supplies expense - \$391,646

22 2. Utility service provided to facilitates leased or owned by Ameren Missouri - \$66,111

23 3. Reduced benefits - \$1,444,469

24 Staff reviewed Ameren Missouri's workpapers and the report filed by Ameren Missouri in  
25 Case No. GU-2021-0112 on May 17, 2021. Some of the amounts contained in the workpapers  
26 and in the report did not match for the months of March 2020 through December 2020. In  
27 cases where the amount did not match, Staff used the amounts listed in the report. Staff  
28 examined the following revenues, expenses and savings for the period of March 1, 2020 through  
29 March 31, 2021:

1           Bad Debt Expense - Staff used the net write-offs for the amount of bad debt expense to  
2 include in the deferral. Net write-offs are used in determining bad debt expense when setting  
3 rates and the amount of bad debt expense included in the previous case and use of write-off  
4 information is how Staff calculated bad debt expense in this case and in Ameren Missouri's last  
5 rate case. The amount of bad debt expense to include in the deferral is a savings of \$100,181.

6           COVID 19 Related Customer Communications – Staff recommends the appropriate  
7 amount to include in the deferral for COVID-19 related customer communications is \$15,692.

8           Additional Cleaning Costs and Personal Protective Equipment, Etc. - Staff included  
9 O&M costs related to protecting Ameren Missouri employees and customers, and Ameren  
10 Services Company. The amount of these costs that should be deferred is \$287,698.

11           Savings Related to Travel and Office Supplies - The amount of savings that should be  
12 included as an offset to the expenses in this AAO is \$171,833.

13           Utility Service Provided to Facilities Leased or Owned by Ameren Missouri – The  
14 amount of savings that should be included as an offset to the expenses is \$2,929.

15           Late payment fees and Reconnection Fees - Staff has included an amount for both fees  
16 combined in the deferral in the amount of \$167,082.

17           Staff recommends the amount of deferral as of March 31, 2021 should be \$195,528.  
18 Staff proposes to amortize this amount over a 5-year period. The annual amortization would  
19 be \$39,106.

20 *Staff Expert/Witness: Kimberly K. Bolin*

#### 21           **E. Cost Savings & Cost Savings Measurement Reporting**

22           As part of the Stipulation and Agreement in Ameren Missouri's previous gas rate case,  
23 Case No. GR-2019-0077, Ameren Missouri agreed to meet with Staff regarding the tracking of  
24 cost reductions or cost savings. Additionally, as part of the Stipulation and Agreement filed in  
25 Case No. ER-2019-0335, Ameren Missouri agreed to provide Staff and other Signatories with  
26 a Cost Savings Measurement report for cost savings measures with a threshold of \$500,000 for  
27 projects that are focused on operational efficiencies. Prior to the settlement in that case  
28 Ameren Missouri had indicated in its response to Staff's Data Requests in various rate cases  
29 that it did not track and quantify cost savings from the various cost savings initiatives under

1 taken. \*\* [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]

5 [REDACTED]

6 [REDACTED]  
7 [REDACTED]  
8 [REDACTED]  
9 [REDACTED]  
10 [REDACTED]  
11 [REDACTED] \*\*

12 Staff would like Ameren Missouri to continue to provide the information that is already  
13 contained within the report, however Staff would like to see some modification to the report.  
14 First, Staff would like to see the actual quantified costs savings for the period examined and  
15 secondly Staff would like to see the amount of any variance between actual cost savings and  
16 the budgeted/forecasted cost saving with a detailed description regarding what lead to the  
17 variance. Staff recommends that the Commission order Ameren Missouri to include the  
18 additional detail requested by Staff in the next cost savings report due in July of 2022. It is  
19 important to be able to quantify these cost savings so that during a rate case, the savings can be  
20 passed on through rates to ratepayers.

21 **1. McKinsey Study & KMPG Study**

22 In the previous Ameren Missouri gas case, Case No. GR-2019-0077, Staff discovered  
23 that Ameren Services had contracted with Klynveld Peat Marwick Goerdeler (“KPMG”) to  
24 perform a benchmarking study of Ameren Services. In March of 2021, Ameren Services

1 contracted with McKinsey to perform a similar study to identify areas of potential cost savings  
2 within the various workstreams of Ameren Corporation and its affiliates. The first part of the  
3 project was to get a baseline of the current Customer Affordability programs and provide an  
4 assessment, which involved reviewing the target areas and current initiatives by segment and  
5 area, i.e., Ameren Missouri Nuclear. Then next step was to identify new areas where cost savings  
6 initiatives could be implemented and to refine existing ones. Then McKinsey would work with  
7 the segment groups to “blueprint” the move from the current spend to the targeted 2025 spend.  
8 Finally, McKinsey would prepare a “2021-2022 integrated masterplan” that would provide a  
9 high level view of expected outcomes, recommended targets, resourcing, and investment to  
10 deliver on the 24 month plan. Additionally, McKinsey would provide Ameren Services with a  
11 “playbook” for Ameren Missouri to use going forward for to support similar performance  
12 improvement diagnostic efforts going forward. During the study, McKinsey \*\* [REDACTED]

13 [REDACTED]  
14 [REDACTED] \*\*

## 15 **2. Cost Savings Reflected in Revenue Requirement**

16 Staff has not identified any specific cost savings with respect to Ameren Missouri’s gas  
17 operations, however, Staff will continue to review the cost savings measures implemented by  
18 Ameren Missouri through the true-up cut-off of September 30, 2021 and may propose  
19 additional adjustments.

20 *Staff Expert/Witness: Jason Kunst, CPA*

## 21 **II. Test Year/True-Up Period**

22 Staff’s revenue requirement as presented in its Direct Accounting Schedules includes  
23 the expected changes for certain major items within the true-up period, September 30, 2021.  
24 For example, the plant and depreciation reserve balances have been adjusted to reflect the  
25 anticipated additions through the true-up cutoff of September 30, 2021. Staff plans to review  
26 and reflect actual changes to the value of this item along with other additional components of  
27 the cost of service during its true-up audit. Staff is not adopting the value of the items quantified  
28 as estimated inclusions for the purpose of setting Ameren Missouri’s gas rates, but Staff  
29 included these items as placeholders, pending completion of Staff’s true-up audit. The true-up

1 information to be filed is described in the *Jointly Proposed Procedural Schedule and*  
2 *Procedures* that was filed on June 2, 2021 and adopted by the Commission in its order issued  
3 on June 9, 2021.

4 *Staff Expert/Witness: Lisa M. Ferguson*

### 5 **III. Rate of Return (Capital Structure, Cost of Debt, Cost of Equity)**

#### 6 **A. Introduction**

7 In this section, Staff presents evidence and provides a recommendation regarding  
8 the appropriate rate of return (“ROR”) to be used in establishing Union Electric’s  
9 (“Ameren Missouri”) natural gas service rates. Staff estimated the market-based cost of  
10 common equity (“COE”) for Ameren Missouri using a comparative COE analysis. Staff’s  
11 analysis takes into account changes in economic and capital market conditions over time by  
12 employing two widely-used and well-respected COE estimation methodologies: the  
13 discounted cash flow model (“DCF”) and the capital asset pricing model (“CAPM”).<sup>2</sup> The  
14 Commission’s most recent fully-litigated natural gas rate case is Spire Missouri’s rate cases in  
15 2017.<sup>3</sup> By using the decision made by the Commission in the 2017 Spire Missouri rate case as  
16 a benchmark, the comparative analysis method allowed Staff to calculate changes from period  
17 to period in authorized return on equity (“ROE”).<sup>4</sup> In the Amended Report and Order issued  
18 on March 7, 2018, in Case Nos. GR-2017-0215 and GR-2017-0216, the Commission found that  
19 a 9.80% ROE was fair and reasonable for calculating the revenue requirement for Spire  
20 Missouri.<sup>5</sup> For the current rate case, Staff recommends that the Commission set Ameren  
21 Missouri’s authorized ROE at 9.50%, the midpoint of a reasonable range of 9.25% and 9.75%.

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<sup>2</sup> *Ass’n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569, 169 FERC ¶ 61,129 (2019).

<sup>3</sup> The most recent Ameren Missouri general rate case, Case No. GR-2019-0077, was settled with a ROE range of 9.50% and 9.95%.

<sup>4</sup> COE is the return required by investors; ROE is the return set by a regulatory utility commission. Although some experts contend that COE and ROE are synonymous, Staff’s position is that they need not be. Observed utility COEs have been generally significantly lower than ROEs in recent years.

<sup>5</sup> On page 35, Amended Report and Order issued March 7, 2018, in Case Nos. GR-2017-0215 and GR-2017-0216.

1 Staff's recommended authorized ROE takes into consideration that COE fell by 30 basis points  
2 since the period of the last Spire Missouri rate case.<sup>6</sup>

3 Staff's recommendation of a 9.50% authorized ROE will fairly compensate Ameren  
4 Missouri for its current market COE and balance the interests of all stakeholders, particularly  
5 considering that the current market COE estimates for Ameren Missouri are presently in the  
6 range of 6.10% to 8.73% (see App. 2, Schedule SJW-13).

7 Staff also recommends that the Commission use Ameren Missouri's own capital  
8 structure of 50.32 percent common equity, 0.75 percent preferred stock, and 48.93 percent  
9 long-term debt, for purposes of setting ROR in this proceeding.<sup>7</sup> Among other reasons, Ameren  
10 Missouri's own standalone capital structure is the appropriate capital structure for use in this  
11 proceeding because Ameren Missouri has an independently determined capital structure in that  
12 its debt is secured by its own assets and not the assets of its parent company, Ameren  
13 Corporation. ("Ameren" or "AEE"), or any of Ameren's other subsidiaries.<sup>8</sup> Additionally,  
14 Ameren Missouri's stand-alone capital structure supports its own bond rating.<sup>9</sup> Consistent with  
15 Staff's capital structure recommendation, Staff also recommends at this time that the  
16 Commission use Ameren Missouri's cost of debt and cost of preferred stock values of 3.91%  
17 and 4.18%, respectively, resulting in the overall midpoint ROR of 6.72%, taken from the  
18 calculated range of 6.60% to 6.85% (see App. 2, Schedule SJW-16).<sup>10</sup>

19 Staff's analyses and conclusions are supported by the data presented in  
20 Schedules SJW-1 through SJW-17 of Appendix 2. Staff's workpapers will be provided to  
21 the parties at the time of the filing of Staff's Cost of Service Report. Staff will make any  
22 source documents of specific interest available upon the request of any party to this case or  
23 the Commission.

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<sup>6</sup> 30 basis points are the difference between the current DCF estimated COE (8.32%) and Spire Missouri's last rate case (GR-2017-0215 and GR-2017-0216) estimated COE (8.62%). See Schedules SJW-13 for more on how Staff calculated the COEs.

<sup>7</sup> Staff Data Request No. 0651 in Case No. ER-2021-0240.

<sup>8</sup> Staff's Data Request No. 0122.

<sup>9</sup> S&P Global Market Intelligence.

<sup>10</sup> Staff Data Request No. 0114.



1           **B. Analytical Frameworks**

2           The determination of a fair ROR is guided by principles of economic and financial  
3 theory and by certain minimum Constitutional standards. Investor-owned public utilities, such  
4 as Ameren Missouri, are private property that the state may not confiscate without  
5 appropriate compensation. The United States Supreme Court has described the minimum  
6 characteristics of a constitutionally-acceptable ROR in two frequently-cited cases: *Bluefield*  
7 *Water Works & Improvement Co. v. Public Service Commission of West Virginia*, and  
8 *Federal Power Commission v. Hope Natural Gas Co.*<sup>11</sup>

9           From these two decisions, Staff derives and applies the following principles to guide it  
10 in recommending a just and reasonable ROR:

- 11           1. A return consistent with returns of investments of comparable risk;
- 12           2. A return that allows the utility to attract capital; and
- 13           3. A return sufficient to assure confidence in the utility's financial integrity.

14           Embodied in these three principles is the economic theory of the opportunity cost of  
15 investment. The opportunity cost of investment is the return that investors forego in order  
16 to invest in similar risk investment opportunities that vary depending on market and  
17 business conditions.

18           Methodologies of financial analysis have advanced greatly since the *Bluefield* and *Hope*  
19 decisions.<sup>12</sup> Additionally, today's utilities compete for capital in a global market rather than a  
20 local market. Nonetheless, the parameters defined in those cases are readily met using current  
21 methods and theory. The principle of commensurate return is based on the concept of risk.  
22 Financial theory holds that the return an investor may expect is reflective of the degree of risk  
23 inherent in the investment, risk being a measure of the likelihood that an investment will not  
24 perform as expected by that investor. Any line of business carries with it its own risks and it  
25 follows, therefore, that the return Ameren Missouri's shareholders may expect is equal to that  
26 required by comparable-risk utility companies.

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<sup>11</sup> *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); *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1943).

<sup>12</sup> Neither the Discounted Cash Flow ("DCF") nor the Capital Asset Pricing Model ("CAPM") methods were in use when those decisions were issued.

1 COE is a market-determined, minimum return investors are willing to accept for their  
2 investment in a company compared to returns on other available investments. An authorized  
3 ROE, on the other hand, is a Commission-determined return granted to monopoly industries,  
4 allowing them the opportunity to earn just and reasonable compensation for their investments.

5 Staff has relied primarily on the analysis of a comparable group of companies to  
6 estimate the COE for Ameren Missouri, applying this comparable-company approach through  
7 the use of both the DCF method and the CAPM. Properly used and applied in appropriate  
8 circumstances, both the DCF and the CAPM can provide accurate estimates of utilities' COE.  
9 It is a well-accepted economic theory that a company that earns its cost of capital will be able  
10 to attract capital and maintain its financial integrity. Therefore, Staff's recommended authorized  
11 ROE based on the COE derived from comparison of peer companies, is consistent with the  
12 principles set forth in Bluefield and Hope.

### 13 **C. Economic and Capital Market Conditions**

14 Determining whether a cost of capital estimate is just and reasonable requires a good  
15 understanding of current economic and capital market conditions, with the former having a  
16 significant impact on the latter. With this in mind, Staff emphasizes that an estimate of a  
17 utility's COE should pass the "common sense" test when considering the broader current  
18 economic and capital market conditions.

#### 19 **1. Economic Conditions**

20 The current economic conditions look much stronger than at the beginning of last year  
21 (2020) when the COVID-19 pandemic halted most economic activities. When the pandemic  
22 hit, the economy was already affected by the weakening global economy, and from  
23 uncertainty emanating from trade conflict between the U.S. and China. The new variants of  
24 COVID-19 remain a global public health threat and continue to spread in many countries, but  
25 the U.S economy is continuing to recover as widespread vaccination has become possible.

26 According to the Bureau of Economic Analysis, gross domestic product ("GDP")  
27 declined 5.0% and 31.7% in the first, and second quarters of 2020, respectively, and  
28 increased 33.4%, 4.1%, 6.4%, and 6.5% in the third and fourth quarters of 2020 and the first  
29 and second quarters of 2021, respectively. Annual real GDP growth in 2017, 2018, 2019, and

1 2020 measures were 2.2%, 3.0%, 2.2% and – 3.5%, respectively.<sup>13</sup> Although there are renewed  
2 concerns coming from new variants of the COVID-19, consensus among economists is that  
3 availability of vaccines and increasing vaccination rates, as well as the economic stimulus,  
4 present good prospects for a sustained economic recovery.

5 The International Monetary Fund (“IMF”) projects the U.S. economy will grow 5.1 % in  
6 2021 and 2.5 % in 2022.<sup>14</sup> In 2021, the Federal Open Market Committee (“FOMC”) projects  
7 U.S. real GDP will grow between 5.8% and 6.6%.<sup>15</sup> The Organization for Economic  
8 Cooperation and Development (“OECD”) projects the nominal GDP growth rate of the U.S. for  
9 2021 and 2022 will rise 6.9 and 3.6, respectively.<sup>16</sup> The International Monetary Fund (“IMF”)  
10 projects averages of 5.5% and 4.2% global growths for 2021 and 2022, respectively.<sup>17</sup> The  
11 Congressional Budget Office’s and FOMC’s long-run projections for nominal GDP of the U.S.  
12 is about 3.70% and 3.80%, respectively.<sup>18</sup>

13 After declining sharply as the pandemic struck, consumer price inflation  
14 rebounded along with economic activity.<sup>19</sup> The Federal Reserve System (“Fed”) maintains  
15 2% as its long-term target for Personal Consumption Expenditures (“PCE”) inflation rate.<sup>20</sup>  
16 Annual inflation, measured by core PCE price index for 2017, 2018, 2019, and 2020 was  
17 1.7%, 2.0%, 1.7%, and 1.4%, respectively, and is expected to be about 2.2% for the year 2021.<sup>21</sup>  
18 There is some concern about high inflation, especially after inflation spiked to about 4.5% in

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<sup>13</sup> Bureau of Economic Analysis, retrieved on July 30, 2021 (<https://www.bea.gov/data/gdp>).

<sup>14</sup> International Monetary Fund, World Economic Outlook, retrieved on August 8, 2021,  
(<https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update>)

<sup>15</sup> Federal Open Market Committee, retrieved on July 18, 2021,  
(<https://www.federalreserve.gov/monetarypolicy/fomcprojetabl20210317.htm>)

<sup>16</sup> Organization for Economic Cooperation and Development, retrieved on July 18, 2021,  
([https://www.oecd-ilibrary.org/sites/edfbca02-en/1/3/1/index.html?itemId=/content/publication/edfbca02-en&\\_csp\\_=db1589373f9d2ad2f9935628d9528c9b&itemIGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/edfbca02-en/1/3/1/index.html?itemId=/content/publication/edfbca02-en&_csp_=db1589373f9d2ad2f9935628d9528c9b&itemIGO=oecd&itemContentType=book)).

<sup>17</sup> International Monetary Fund, World Economic Outlook, retrieved on July 18, 2021,  
(<https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update>)

<sup>18</sup> Federal Open Market Committee, retrieved on July 18, 2021,  
(<https://www.federalreserve.gov/monetarypolicy/fomcprojetabl20200610.htm>).

<sup>19</sup> Stock Strategist Industry Report, Morningstar, retrieved on July 18, 2021,  
(<https://www.morningstar.com/articles/1040881/2021-inflation-forecast-heads-higher>).

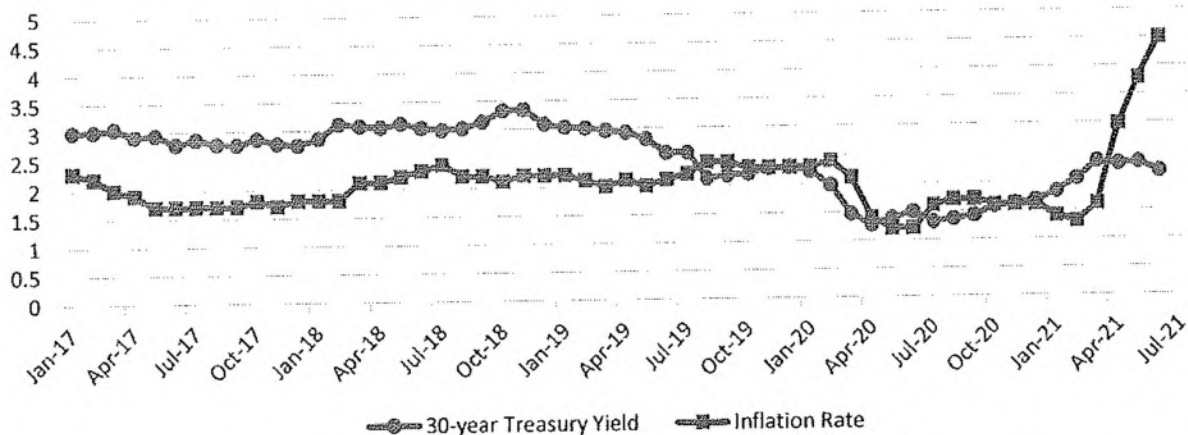
<sup>20</sup> Federal Open Market Committee, retrieved on July 18, 2021,  
(<https://www.federalreserve.gov/monetarypolicy/fomcprojetabl20200610.htm>).

<sup>21</sup> An Update to the Economic Outlook: 2020 to 2030, Congressional Budget Office, February 2021,  
(<https://www.cbo.gov/system/files/2021-02/56965-Economic-Outlook.pdf>).

1 June 2021.<sup>22</sup> Fed Chairman Jerome Powell acknowledged in his testimony to the House  
2 Financial Services Committee that recent readings on inflation had been higher than expected.  
3 The Fed Chairman attributed the rise in inflation to gains from a small group of goods and  
4 services and stressed that, while officials expect high inflation to be temporary, the Fed would  
5 react if inflation turned out to be persistently and materially above their 2% target.<sup>23</sup>

6 The labor market continued to reflect the impact of the COVID-19 pandemic. The  
7 unemployment rate has continued to decline from 14.7% in April 2020 to 5.9% in June 2021.<sup>24</sup>  
8 Although this metric is currently much lower than its April 2020 highs, the unemployment rate  
9 remains well above its pre-pandemic level of 3.5% recorded in February 2020. With an  
10 improving economy, the unemployment rate is expected to decline (improve) further.

11 **Figure 1. Interest and Inflation 2017-2021**



12 As presented in Figure 1, 30-year treasury yields fell throughout 2017 before rising in 2018 and  
13 falling again in 2019. 30-year treasury yields were 3.02% in January 2017 and 2.77% by  
14 December 2017.<sup>25</sup> 2018 saw yields rising from 2.88% in January to 3.10% in December 2018  
15 before falling to 1.27% by April 2020, and rising to 2.32% in May 2021.<sup>26</sup> Interest rates fell at  
16

<sup>22</sup> U.S. Bureau of Labor Statistics, retrieved on July 18, 2021, (<https://data.bls.gov/pdq/SurveyOutputServlet>)

<sup>23</sup> Bloomberg, Powell Sees Tapering a 'Ways Off,' Gets House Inflation Grilling, Retrieved July 12, 2021, (<https://www.bloomberg.com/news/articles/2021-07-14/powell-says-achieving-substantial-further-progress-a-ways-off>)

<sup>24</sup> U.S. Bureau of Labor Statistics, retrieved on July 18, 2021, (<https://www.bls.gov/news.release/pdf/empsit.pdf>).

<sup>25</sup> 30-Year Treasury Constant Maturity Rate, Economic Research, FRED Economic Data, (<https://fred.stlouisfed.org/series/DGS30>).

<sup>26</sup> Appendix 2, Schedule SJW-4-2.

1 the beginning of 2020 when the Fed cut discount rates to the 0.00% to 0.25% range as it tried  
2 to combat economic slowdown due to the pandemic. Interest rates accelerated starting in  
3 February 2021 due to inflation fears. Nevertheless, interest rates remained lower in 2021 than  
4 they were in 2017, indicating lower COE and justifying lowering the authorized ROE from the  
5 9.80% authorized in 2017 to 9.49% (see App. 2, Schedule SJW-4-2). Abroad, negative yields  
6 are common. There is more than \$16 trillion of bonds with negative yields world-wide, most  
7 of them sold in the European Union and Japan.<sup>27</sup> Low interest rates abroad have the effect of  
8 pushing down U.S interest rates through the force of supply and demand. Lower yields abroad  
9 increase demand for U.S debt securities with the effect of lowering yields in the U.S. The  
10 average 30-year Treasury bond yield for the 3-month period (April, May, and June 2017) in the  
11 last Spire Missouri rate cases analysis was 2.90% (see App. 2, Schedule SJW-4-2). The average  
12 30-year Treasury bond yield is 2.26% in the 3-month period (April, May, and June 2021) of  
13 analysis for the current rate case (see App. 2, Schedule SJW-4-3). That is a significant decrease  
14 of 64 basis points. The ROE should therefore be lower than at the time of the 2017 Spire  
15 Missouri rate case if all other things are equal.

## 16 **2. Capital Market Conditions**

### 17 **a. Utility Debt Markets**

18 Interest rates are a key factor in determining a utility's COE, as stock investors demand  
19 a premium return over those offered by lower-risk, interest-bearing securities, such as  
20 U.S. Treasury bonds. An increase [decrease] in interest rates therefore, will increase [decrease]  
21 a utility's COE, all else being equal. The current utility debt market indicates a lower  
22 cost-of-capital than the period of the 2017 Spire Missouri rate case. Utility bond yields have  
23 been on a steady decline since January 2019. Average Moody's utility bond yields, as  
24 reported by Mergent Bond Record, declined from 4.01% in June 2017 to 3.19% in June 2021  
25 (see App. 2, Schedule SJW-4-1).

26 Staff compared average utility bond yields in a three-month period (April, May, and  
27 June 2017) within the timeframe of the 2017 Spire Missouri rate case analysis, to a three-month

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<sup>27</sup> Wall Street Journal, retrieved on July 17, 2021,  
(<https://www.wsj.com/articles/in-bond-anomaly-negative-yields-bring-positive-returns-11567947602>).

1 period (April, May, and June 2021) within the timeframe of the current case. The three-month  
2 average utility bond yield was 4.13% in the last Spire Missouri rate case compared to 3.29% in  
3 the current rate case, a drop of 84 basis points (see App. 2, Schedule SJW-4-1).

4 Although utilities' COEs are not perfectly correlated to changes in utility debt yields, it  
5 is widely recognized in the investment community that regulated utility stocks are a close  
6 alternative to bond investments and, therefore, the two values are highly correlated over time.<sup>28</sup>  
7 As interest rates fall, utility stock prices rise, pushing COE down as investors substitute debt  
8 for utility stock in search for higher yields. Consequently, to the extent the Commission found  
9 that a 9.80% authorized ROE of the 2017 Spire Missouri rate case was reasonable, and the cost  
10 of debt information was looked at in isolation, without considering COE estimation  
11 methodologies, this would suggest that a value lower than the 9.80% recommended authorized  
12 ROE may be considered just and reasonable for Ameren Missouri's current case.<sup>29</sup>

#### 13 **b. Utility Equity Markets**

14 Utility equities have not been spared the effects of the pandemic, which saw equities  
15 fall across the board. In the last three years, overall, utility equity total returns fell behind the  
16 S&P 500. Over the past four years ending June 30, 2021, Staff's gas proxy group in this case  
17 experienced total returns of 17.32% during the same period, well below the 91.15% and 31.20%  
18 for the S&P 500 and the overall Utilities sector, respectively, for the same period.<sup>30</sup> In times of  
19 economic slowdown, utility equities usually perform better than the overall market as  
20 investors seek the 'safe haven' of the utilities sector. From around October 2018 to around  
21 Mach 2020, the utilities sector showed similar performance to the overall market, although there  
22 was a notable decline starting in March 2020 in both the utilities and the overall market  
23 (see Figure 2 below). The current recovery of the economy has seen both the utilities sector  
24 and the overall market rise, although with the utilities sector lagging. Utilities are expected to  
25 lag the overall market when the economic outlook is improving, as investors feel more

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<sup>28</sup> Moringstar, Rekenhtaler Report, Retrieved August 18, 2021,  
(<https://www.morningstar.com/articles/1003466/considering-bond-alternatives-preferred-stocks-and-utilities>)

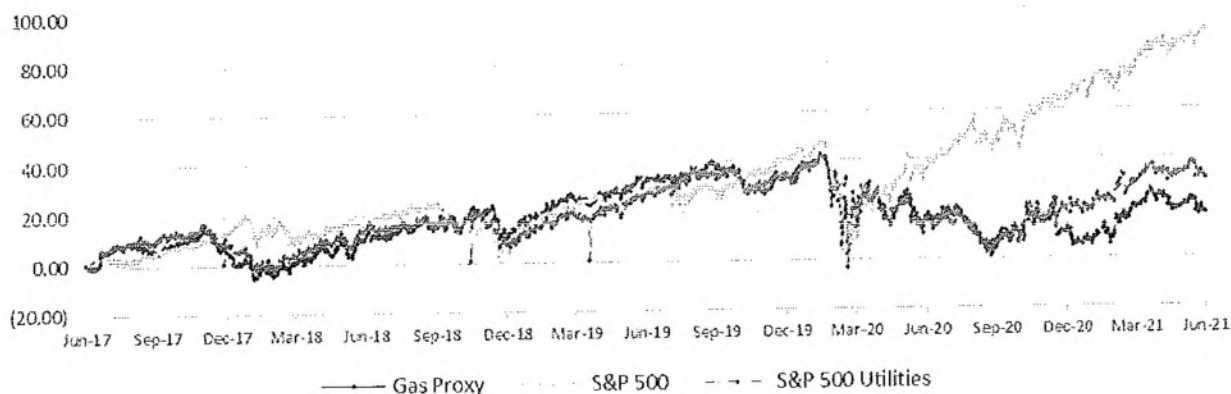
Forbes, Palash Ghosh, Retrieved August 18, 2021,  
(<https://www.forbes.com/sites/palashghosh/2021/05/04/utility-stocks-are-lagging-but-analysts-disagree-if-its-a-buying-opportunity/?sh=4c51bddb7ef5>).

<sup>29</sup> The Commission Order Approving Stipulations and Agreements, Case No. WR-2017-0285.

<sup>30</sup> Regulatory Research Associates, S&P Global Market Intelligence.

1 comfortable to seek high returns in the risky overall market. The natural gas proxy group  
2 showed noticeable underperformance in the equity market in terms of total return:

3 **Figure 2. Total Return 2017-2021**



4 To further gain insight on what is happening in the utility market, Staff analyzed stock prices,  
5 growth rates, and dividend yield. The average stock price for Staff's proxy group is higher  
6 (\$63.13) in the current period than it was (\$62.61) in the period of the Spire Missouri rate  
7 cases.<sup>31</sup> All else being the same, higher stock prices mean lower COEs. Staff combined growth  
8 rates with dividend yields to get a clearer picture of how COE changed since the Commission's  
9 decision in the Spire Missouri rate cases. Growth rates are lower (4.95%) in the current period  
10 than they were (5.86%) in the Spire Missouri rate cases.<sup>32</sup> Expected dividend yields are higher  
11 (3.37%) in the current case than they were (2.76%) in the Spire Missouri rate cases.<sup>33</sup> The net  
12 result of combining expected growth rates and expected dividend yields is a decline in COE by  
13 30 basis points, as indicated by the DCF model, since the time of Spire's last rate cases.

15 **D. Corporate Analysis**

16 **3. 1. Business Profile**

17 Union Electric Company, doing business as Ameren Missouri, operates a rate-regulated  
18 electric generation, transmission, and distribution business; and a rate-regulated natural gas  
19 distribution business in Missouri. The company operates as a subsidiary of Ameren. Union

<sup>31</sup> Appendix 2, Schedule SJW-12.

<sup>32</sup> Appendix 2, Schedule SJW-13.

<sup>33</sup> Appendix 2, Schedules SJW-11 and SJW-13.

1 Electric Company was founded in 1902. The company was incorporated in Missouri in 1922.  
2 The following summary based on Ameren's Form 10-K filing with the United States Securities  
3 and Exchange Commission ("SEC") in February 2021 provides a good description of Ameren  
4 Missouri and Ameren's current business operations and current organizational structure.

5 Ameren Missouri supplies electric and natural gas service to a 24,000-square-mile area  
6 in central and eastern Missouri, which includes the Greater St. Louis area. Ameren Missouri  
7 supplies electric service to 1.2 million customers and natural gas service to 0.1 million  
8 customers. Ameren Missouri's electric supply is primarily generated from its energy centers.  
9 Ameren Missouri owns energy centers that rely on a diverse fuel portfolio, including coal,  
10 nuclear, and natural gas, as well as renewable sources of generation, which include  
11 hydroelectric, methane gas, and solar.

12 Ameren Missouri is responsible for the purchase and delivery of natural gas to its  
13 customers. Ameren Missouri develops and manages a portfolio of natural gas supply resources.  
14 These resources include firm natural gas supply agreements with producers, firm interstate and  
15 intrastate transportation capacity, firm no-notice storage capacity leased from interstate  
16 pipelines, and on-system storage facilities to maintain natural gas deliveries to customers  
17 throughout the year and especially during peak demand periods. Ameren Missouri primarily  
18 uses Panhandle Eastern Pipe Line Company, Trunkline Gas Company, Natural Gas Pipeline  
19 Company of America, Mississippi River Transmission Corporation, Northern Border Pipeline  
20 Company, and Texas Eastern Transmission Corporation interstate pipeline systems to transport  
21 natural gas to its systems.

22 Ameren Missouri must receive Federal Energy Regulatory Commission ("FERC")  
23 approval to enter into various transactions, such as issuing short-term debt securities and  
24 conducting certain acquisitions, mergers, and consolidations involving electric utility holding  
25 companies. The company is also subject to mandatory reliability standards, including  
26 cybersecurity standards adopted by the FERC, to ensure the reliability of the bulk electric  
27 power system.

28 Ameren Missouri is a member of the SERC Reliability Corporation ("SERC").  
29 Operation of the company's Callaway Energy Center is subject to regulation by the Nuclear  
30 Regulatory Commission ("NRC"). The license for the Callaway Energy Center expires in 2044.



1 The company's hydroelectric Osage Energy Center and pumped-storage hydroelectric Taum  
2 Sauk Energy Center, as licensed projects under the Federal Power Act, are subject to FERC  
3 regulations affecting, among other aspects, the general operation and maintenance of the  
4 projects. The licenses for the Osage Energy Center and the Taum Sauk Energy Center expire  
5 in 2047 and 2044, respectively. The company's Keokuk Energy Center and its dam in the  
6 Mississippi River between Hamilton, Illinois, and Keokuk, Iowa, are operated under authority  
7 granted by an Act of Congress in 1905.

#### 8 **4. Credit Ratings**

9 Ameren Missouri receives an individual credit rating as a stand-alone entity.  
10 Ameren Missouri is currently rated by Moody's and Standard & Poor's ("S&P"). The  
11 corporate credit ratings assigned to Ameren Missouri by Moody's and S&P are 'Baa1' and  
12 'BBB+', respectively.<sup>34</sup> These ratings are lower than natural gas utilities' average bond ratings  
13 of A3 and A- provided by Moody's and S&P, respectively.<sup>35</sup> The corporate credit ratings  
14 assigned to Ameren by Moody's and S&P are 'Baa1' and 'BBB+', respectively.<sup>36</sup>

#### 15 **E. Rate of Return Analysis**

16 In order to arrive at Staff's recommended ROR, Staff specifically examined and  
17 evaluated: (1) the estimated COEs in the current Ameren Missouri rate case and 2017 Spire  
18 Missouri rate cases; (2) the just and reasonable range of the authorized ROE agreed in the most  
19 recent Ameren Missouri rate case; (3) the appropriate ratemaking capital structure; and (4) the  
20 current embedded cost of debt.

#### 21 **1. Cost of Common Equity**

22 Staff estimated Ameren Missouri's COE through a comparable company cost-of-equity  
23 analysis using a proxy group of gas utility companies, applying the DCF model and testing the  
24 reasonableness of the results using a CAPM analysis and other methods. Staff compared the  
25 DCF COE estimates from the current and the 2017 Spire Missouri rate cases. Combining these

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<sup>34</sup> S&P Global Market Intelligence, retrieved July 19, 2021,  
(<https://platform.marketintelligence.spglobal.com/web/client?auth=inherit#company/profile?id=4057102>).

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

1 COE estimates and applying them proportionately allowed Staff to estimate a sensible range of  
2 recommended authorized ROEs. Additionally, Staff used a survey of other indicators and  
3 compared its recommendation to recently authorized ROEs in other Commission jurisdictions  
4 as a check of the reasonableness of its recommendation.

5 **a. The Proxy Group**

6 Staff used a proxy group consisting of U.S. utilities that Value Line classifies as  
7 Gas Utilities. Staff screened seven companies (see App. 2, Schedule SJW-9) by ensuring  
8 that companies:

- 9 • are publicly traded;
- 10 • have more than five years of financial data available;
- 11 • have investment grade credit ratings from major U.S. credit rating agencies;
- 12 • have long-term growth coverage from at least two analysts;
- 13 • have no pending merger or acquisitions;
- 14 • have not reduced dividends since 2015;
- 15 • have at least 65% of income from regulated operations; and
- 16 • have at least 65% of assets in gas distribution operations.

17 The seven gas utilities that met these criteria are presented in Table 1:

18 Table 1. Gas Utility Proxy Group

| Gas Utility Companies             | Ticker |
|-----------------------------------|--------|
| Atmos Energy Corporation          | ATO    |
| New Jersey Resources Corporation  | NJR    |
| Northwest Natural Holding Company | NWN    |
| ONE Gas, Inc.                     | OGS    |
| South Jersey Industries, Inc.     | SJI    |
| Southwest Gas Holdings, Inc.      | SWX    |
| Ameren Inc.                       | SR     |

19  
20 **b. DCF**

21 Staff started its evaluation of the gas utility industry's COE by applying values derived from  
22 the proxy group to the constant-growth DCF model. The DCF model is widely used by  
23 investors to evaluate stable-growth investment opportunities, such as regulated utility

1 companies. The premise of the DCF model is that an investment of common stock is worth the  
2 present value of the infinite stream of dividends discounted at a market rate commensurate with  
3 the investment's risk. Using the following formula of the DCF model, the investors determine  
4 common stock price:

$$5 \qquad \qquad \qquad P = D / (k - g),$$

6           where         $P$         is the common stock price,  
7                            $D$         is the current dividend,  
8                            $k$         is investors' required return from the stock, and  
9                            $g$         is the expected growth rate in dividends.

10           In rate cases, the investors' required return from the stock could be considered to  
11 be the expected market COE of utility stock investors. Staff uses an adjusted dividend yield  
12  $(1 + .5g)D$  to account for the fact that the dividends are paid on quarterly basis. For the  
13 growth rate, Staff uses analysts' short-term projected earnings per share ("EPS") and  
14 dividends per share ("DPS") growth estimates and long-term GDP growth estimates, combined  
15 together into a single growth rate, at two-third (2/3) Value Line's weighted average projected  
16 growth rates of EPS and DPS and one-third (1/3) long-term projected GDP growth  
17 estimates (see App. 2, Schedule SJW-11). It is important that the growth rate used in Staff's  
18 constant-growth DCF model reflects the long-term investment horizon assumption implied in  
19 the constant-growth DCF model. FERC also agreed as much when it ruled, in Opinion 569,  
20 that exclusive use of short-term analysts' growth rates in the constant-growth DCF was  
21 inappropriate.<sup>37</sup> The COE estimate using the above formulation of the constant-growth DCF  
22 can be expressed as follows:

$$23 \qquad \qquad \qquad k = (1 + .5g)D / P + g.$$

24           For the current rate case, the proxy group DCF analysis resulted in a DCF COE  
25 estimate range of 6.10% to 8.73%, with a proxy group average COE point estimate of 8.32%  
26 (see App. 2, Schedule SJW-13). For the 2017 Spire Missouri rate cases, Staff recalculated

---

<sup>37</sup> *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569, 169 FERC ¶ 61,129 (2019).

1 the proxy group's COE using the constant-growth DCF analysis. The recalculation resulted  
2 in a DCF COE range of 6.15% to 9.73%, with a proxy group average COE point estimate  
3 of 8.62% (see App. 2, Schedule SJW-13). Based on a comparative DCF analysis, the COE  
4 estimate has decreased by 30 basis points from the last Spire Missouri rate cases.

5 **c. CAPM**

6 In addition to the DCF, Staff tested the reasonableness of the DCF COE estimates by  
7 applying a CAPM analysis. The CAPM is built on the premise that the variance in returns over  
8 time is the appropriate measure of risk, but only the non-diversifiable variance (systematic risk)  
9 is rewarded. Systematic risks, also called market risks, are unanticipated events that affect  
10 almost all assets to some degree because the effects are economy wide. Systematic risk in an  
11 asset, relative to the average, is measured by the beta of that asset.<sup>38</sup> Unsystematic risks, also  
12 called asset-specific risks, are unanticipated events that affect single assets or small groups of  
13 assets. Because unsystematic risks can be freely eliminated by diversification, the appropriate  
14 reward for bearing risk depends on the level of systematic risk.

15 The CAPM shows that the expected return for a particular asset depends on pure time  
16 value of money (measured by the risk free rate), the amount of the reward for bearing systematic  
17 risk (measured by the market risk premium ("MRP")), and the amount of systematic risk  
18 incurred by the asset (measured by beta). Specifically, the CAPM methodology estimates the  
19 cost of equity by taking the risk-free rate and adding to it the MRP multiplied by beta.<sup>39</sup> The  
20 MRP is calculated by subtracting the risk-free rate from the expected market return. The general  
21 form of the CAPM is as follows:

$$k = R_f + \beta(R_m - R_f)$$

22  
23 where,  $k$  is the expected return on equity for a security,  
24  $R_f$  is the risk-free rate,  
25  $R_m$  is the expected market return,  
26  $\beta$  is beta, and

---

<sup>38</sup> Beta is a measure of the volatility—or systematic risk—of a security or portfolio compared to the market as a whole. (Investopedia, retrieved November 5, 2020).

<sup>39</sup> Roger A. Morin, New Regulatory Finance (Public Utilities Reports, Inc. 2006).

1  $R_m - R_f$  is the MRP.

2 For the risk-free rate, Staff used the average yield on 30-year U.S. Treasury bonds for the three-  
3 month period ending June 30, 2021, and that figure was 2.26%. For beta, Staff relied on Value  
4 Line betas. MRP can vary widely depending on estimating methodology. For the MRP estimate,  
5 Staff relied on four sets of data. The first data set is the long-term geometric mean of historical  
6 return differences between large company stocks and long-term government bonds from 1926-  
7 2020, resulting in an MRP estimate of 4.63%.<sup>40</sup> The second data set is the long-term arithmetic  
8 mean of historical return differences between large company stocks and long-term government  
9 bonds from 1926-2020, resulting in an MRP estimate of 6.07%.<sup>41</sup> The third data set is the long-  
10 term geometric mean of historical return differences between S&P 500 and long-term  
11 government bonds from 1928-2020, resulting in an MRP estimate of 4.84%.<sup>42</sup> The fourth data  
12 set is the long-term arithmetic mean of historical return differences between S&P 500 and long-  
13 term government bonds from 1928-2020, resulting in an MRP estimate of 6.43%.<sup>43</sup>

14 For the current rate case, the proxy group CAPM analysis resulted in a CAPM COE  
15 estimate range of 6.14% to 8.64% (see App. 2, Schedule SJW-14). To the extent that CAPM  
16 COE estimate range overlaps Staff's DCF COE estimate range, the CAPM COE estimation  
17 supports the reasonableness of Staff's COE estimates' range of 6.10% to 8.73% and point  
18 estimate of 8.32%, derived from its DCF analysis.

19 **d. Other Test of Reasonableness**

20 Staff used the bond yield-plus risk premium method to test the reasonableness of  
21 Staff's COE estimates. The bond yield-plus risk premium method, called the "rule of thumb"  
22 test of reasonableness in the CFA study guide, estimates the COE by simply adding an  
23 equity risk premium to the yield-to-maturity ("YTM") of the subject company's long-term  
24 debt.<sup>44</sup> Based on general U.S. capital-market experience and regulated utilities, the

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<sup>40</sup> Duff & Phelps, the Stocks, Bonds, Bills, and Inflation (SBBI®) Monthly Dataset.

<sup>41</sup> Ibid.

<sup>42</sup> Risk Premium, Damodaran Online, Stern School of Business, NYU.

<sup>43</sup> Ibid.

<sup>44</sup> Stowe, J. D., Robinson, T. R., Pinto, J. E., & McLeavey, D. W. (2002) Analysis of Equity Investment: Valuation. Association for Investment Management and Research.

1 typical equity risk premium is in the 3% to 5% range.<sup>45</sup> For the three months ended  
2 through June 30, 2021, “A” rated and “Baa” rated long-term utility bonds had average yields  
3 of 3.26% and 3.41% respectively.<sup>46</sup> Adding the 3% to 5% risk premium, the “rule of thumb”  
4 indicates a cost of common equity between 6.26% and 8.41%. To the extent that the bond  
5 yield-plus risk premium COE estimate range of 6.26% to 8.41% overlaps Staff’s DCF COE  
6 estimate range of 6.10% to 8.73%, the bond yield-plus risk premium COE estimate supports  
7 the reasonableness of Staff’s DCF COE estimate of 8.32%.

8 In addition, U.S. Treasury yields and utility bond yields are quite low (at levels last  
9 experienced in the early 1960s) and the spread between them is presently below their long-term  
10 average (see App. 2, Schedule SJW-4-4). Lower U.S. Treasury yields, and a narrower  
11 spread between U.S. Treasury yields (risk-free rate) and utility yields (see App. 2, Schedule  
12 SJW-4-2), mean that investors are requiring lower risk premiums, which consequently means  
13 that investors are requiring lower returns.<sup>47</sup> Therefore, it is common sense in today’s capital  
14 market environment that investors are only requiring lower returns, in the 6 to 9 percent range,  
15 on their utility common equity investments rather than the historical average returns. As Staff  
16 explained in its discussion of other tests of reasonableness, these COE estimates are consistent  
17 with common sense tests. Therefore, Staff’s DCF calculations resulting in a range of COE  
18 estimates of 6.10% to 8.73% are reasonable.

## 19 2. Return on Equity

### 20 a. Authorized ROE

21 In Spire Missouri’s 2017 rate cases, the Commission determined, that for the purpose of  
22 calculating the revenue requirement, an authorized ROE of 9.80% was reasonable.<sup>48</sup> Based on  
23 an average of the results of Staff’s DCF analysis, the point COE estimate of 2017  
24 Spire Missouri’s rate case was 8.62%.<sup>49</sup> With the same proxy group, Staff’s DCF analysis in  
25 the current Ameren Missouri case results in a COE point estimate of 8.32%. The difference

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<sup>45</sup> CFA Institute, retrieved on March 18, 2021, (<https://www.cfainstitute.org/en/programs/cfa/policies>), and Roger A. Morin, *New Regulatory Finance* (Public Utilities Reports, Inc. 2006).

<sup>46</sup> Mergent Bond Record, January 2021.

<sup>47</sup> Morin, R. A. (2006) *New Regulatory Finance*. Public Utilities Reports.

<sup>48</sup> Amended Report and Order issued on March 7, 2018, in Case Nos. GR-2017-0215 and GR-2017-0216.

<sup>49</sup> Staff recalculated this COE using the same methodology for the proper comparison analysis.

1 between the two COEs is 30 basis points, meaning that COE has declined by 30 basis  
2 points since the 2017 Spire Missouri rate cases. If there is no significant change of the  
3 Commission’s perspectives on the relationship between the COE estimate and the authorized  
4 ROE, it is reasonable to conclude that the current authorized ROE should be set approximately  
5 30 basis points lower than the authorized ROE of 9.80% in the 2017 Spire Missouri case.  
6 Considering all of the above information that Staff has reviewed, Staff recommends the  
7 Commission authorize an ROE of 9.50% for Ameren Missouri in this proceeding.

8 **b. Comparison of Authorized ROEs**

9 Staff recognizes that the Commission may also be interested in recent authorized ROEs for  
10 other gas utility companies throughout the country. Table 2 presents information compiled and  
11 published by Regulatory Research Associates (“RRA”) which details the average authorized  
12 ROE’s from Commissions around the U.S. in the years 2010 - 2021, along with the number of  
13 cases considered:

14 **Table 2. Authorized ROEs of Utility Rate Cases (2010-2021)<sup>50</sup>**

| Year    | Natural Gas     |            |         |            |                   |            |
|---------|-----------------|------------|---------|------------|-------------------|------------|
|         | Fully Litigated |            | Settled |            | Natural Gas Total |            |
|         | ROE (%)         | Case (No.) | ROE (%) | Case (No.) | ROE (%)           | Case (No.) |
| 2010    | 10.08           | 27         | 10.30   | 12         | 10.15             | 39         |
| 2011    | 9.76            | 8          | 10.08   | 8          | 9.92              | 16         |
| 2012    | 9.92            | 21         | 9.99    | 14         | 9.94              | 35         |
| 2013    | 9.59            | 12         | 9.80    | 9          | 9.68              | 21         |
| 2014    | 9.98            | 15         | 9.51    | 11         | 9.78              | 26         |
| 2015    | 9.58            | 5          | 9.60    | 11         | 9.60              | 16         |
| 2016    | 9.61            | 10         | 9.50    | 16         | 9.54              | 26         |
| 2017    | 9.82            | 7          | 9.68    | 17         | 9.72              | 24         |
| 2018    | 9.59            | 17         | 9.59    | 23         | 9.59              | 40         |
| 2019    | 9.74            | 12         | 9.70    | 20         | 9.71              | 32         |
| 2020    | 9.44            | 12         | 9.47    | 22         | 9.46              | 34         |
| 2021    | 9.60            | 7          | 9.48    | 13         | 9.52              | 20         |
| Q1 2021 | 9.77            | 2          | 9.69    | 8          | 9.71              | 10         |
| Q2 2021 | 9.54            | 4          | 9.37    | 2          | 9.48              | 6          |

15 <sup>50</sup> Regulated Research Associates, S&P Global Market Intelligence, Retrieved September 22, 2020.

1 In 2017, gas utility fully litigated authorized ROEs averaged 9.82%, compared to the  
2 9.60% average ROE in gas utility rate cases completed in 2021.<sup>51</sup> The average settled  
3 ROE authorized for natural gas utilities was 9.68% in 2017 and 9.48% in cases decided during  
4 2021.<sup>52</sup> The average overall ROE authorized for natural gas utilities was 9.72% in 2017 and  
5 9.52% in 2021.<sup>53</sup> Therefore, all average authorized ROE results in 2021 have decreased  
6 compared to those in 2017. In the second quarter of 2021, gas utility authorized ROEs averaged  
7 9.54% and 9.37% for fully litigated and settled authorized ROE, respectively. Staff's  
8 recommended authorized ROE of 9.50% is in line with the current level of authorized ROEs.

9 Ameren Illinois Company ("AIC") is the only other Ameren subsidiary subject to rate  
10 cases before state regulatory bodies. AIC electric service utilizes formula rate structures to  
11 adjust their cost of service in rates to the Illinois Commerce Commission.<sup>54</sup> Since AIC has  
12 operated under "formula rate plans" and their rates are not set through a traditional rate case  
13 process, its authorized ROEs are not directly comparable to Ameren Missouri's  
14 authorized ROE. In the most recent natural gas general rate filed in January 2021, AIC  
15 requested an ROE of 10.5% but the Illinois Commerce Commission allowed only 9.67%.<sup>55</sup>

### 16 3. Capital Structure

17 There has not been any discernible change to Ameren Missouri's or Ameren's capital  
18 structure policies since the last rate case to cause Staff to recommend that Ameren Missouri's  
19 stand-alone capital structure should not be used for ratemaking purposes in this proceeding. As  
20 discussed below, the following reasons relied upon by Staff in determining the appropriate  
21 ratemaking capital structure for Ameren Missouri still apply in the current case.

22 First, Ameren Missouri operates as an independent entity, when considering Ameren  
23 Missouri's procurement of financing and the cost of that financing. Ameren is not the primary  
24 source of long-term and short-term debt financing for Ameren Missouri and this appears to

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<sup>51</sup> S&P Global Market Intelligence.

<sup>52</sup> Ibid.

<sup>53</sup> Ibid.

<sup>54</sup> Staff Data Request No. 0120.

<sup>55</sup> Docket No. 20-0308, Illinois Commerce Commission, Date Filed January 13, 2021,  
(<https://www.icc.illinois.gov/docket/P2020-0308/documents/306863>)



1 continue to be the case. Since January 2018, Ameren Missouri has not received long-term  
2 financing from Ameren, Inc., or other Ameren subsidiaries.<sup>56</sup>

3 Second, Ameren Missouri's stand-alone capital structure supports its own credit  
4 rating.<sup>57</sup> The debt is rated by credit rating agencies based on the stand-alone credit quality of  
5 Ameren Missouri. Therefore, the cost of any debt that Ameren Missouri incurs will be based on  
6 Ameren Missouri's creditworthiness. Actually, rating agencies rated Ameren Missouri's credit  
7 rating equal to Ameren's. For example, the corporate credit ratings assigned to both Ameren  
8 Missouri and Ameren by Moody's and S&P are 'Baa1' and 'BBB+', respectively.<sup>58</sup>

9 Third, Ameren Missouri's debt is not secured by the assets of Ameren Corporation or  
10 by the assets of any of Ameren Corporation's other subsidiaries nor is Ameren Corporation's  
11 debt, or any of Ameren Corporation's other subsidiaries' debt, secured by the assets of Ameren  
12 Missouri.<sup>59</sup> Therefore, Ameren Missouri's regulatory assets are independent from Ameren's  
13 financial obligations.

14 Fourth, Ameren is primarily a regulated utility, meaning that the business risks  
15 of Ameren are similar to those of Ameren Missouri in terms of sector risk. If the business  
16 risks of the parent company are similar to those of the subsidiary, then each entity should  
17 be able to incur similar amounts of financial risk. As of February 2021, Ameren's SEC Form  
18 10-K filings indicate that both Ameren and Ameren Missouri have around 52 percent of  
19 long-term debt in their capital structures. According to Ameren Missouri's response to Staff  
20 Data Request No. 120, the Illinois Commerce Commission ordered the use of AIC's equity  
21 capital of 52 percent.<sup>60</sup> In other words, Staff does not find any major reasons that Ameren  
22 Missouri's stand-alone capital structure should not be used for ratemaking purposes.

23 For these reasons, Staff recommends the Commission set Ameren Missouri's rate of  
24 return based on Ameren Missouri's capital structure. The capital structure Staff used for this

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<sup>56</sup> Staff's Data Request No. 0328.

<sup>57</sup> S&P Global Market Intelligence.

<sup>58</sup> Ibid.

<sup>59</sup> Staff's Data Request No. 0328.

<sup>60</sup> Docket No. 20-0308, Illinois Commerce Commission, Date Filed January 13, 2021,  
(<https://www.icc.illinois.gov/docket/P2020-0308/documents/306863>).

1 case is Ameren Missouri's stand-alone capital structure composed of \*\* [REDACTED] \*\*percent  
2 common equity, \*\* [REDACTED] \*\* percent preferred stock and \*\* [REDACTED] \*\* percent long-term debt that  
3 is based on Ameren Missouri's capital structure as of June 30, 2021.<sup>61</sup> Schedules SJW-5-1 and  
4 SJW-5-2, attached as Appendix 2 to this Report and incorporated by reference herein, presents  
5 Ameren's and Ameren Missouri's historical capital structures and the associated capital ratios.  
6 Staff will keep monitoring Ameren and Ameren Missouri's updated capital structure  
7 through the end of the true-up period and will update its final recommendation to actual  
8 values at that time.

#### 9 **4. Embedded Costs**

10 For purposes of setting Ameren Missouri's ROR, Staff recommends at this time the use  
11 of Ameren Missouri's embedded cost of debt and preferred stock as of June 30, 2021, which  
12 are 3.91% and 4.18%, respectively.<sup>62</sup> Again, Staff will update its recommended cost of debt  
13 later in this case to reflect Ameren Missouri's actual embedded cost of debt as of the end of the  
14 true-up period.

#### 15 **F. Conclusion**

16 Considering all of the above financial and economic information Staff has reviewed,  
17 and taking into account the evidence that supports the conclusion that the cost of common  
18 equity for gas utility companies has declined by 30 basis points since the last Ameren Missouri  
19 rate case, Staff concludes that an authorized ROE of 9.50%, within a range of reasonableness  
20 of 9.25% to 9.75%, is just and reasonable for Ameren Missouri. Because of the rapidly  
21 changing economic outlook, Staff's recommended authorized ROE will be updated if there are  
22 changes in the economic outlook that necessitate updating the recommended authorized ROE.

23 Using an authorized ROE of 9.50% results in an allowed ROR of 6.72% (see App. 2,  
24 Schedule SJW-16) combined with embedded costs of debt of 3.91% and cost of preferred  
25 stock of 4.18%, applied to a capital structure consisting of 48.93 percent long-term debt, 0.75  
26 percent preferred stock and 50.32 percent common equity.

27 *Staff Expert/Witness: Seoung Joun Won, PhD.*

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<sup>61</sup> Staff Data Request No. 0651 in Case No. ER-2021-0240.

<sup>62</sup> Staff Data Request No. 0651 in Case No. ER-2021-0240.

1           **G. Regulatory Lag and Risk Mitigation**

2           Staff's position on rate of return, including return on equity, is bolstered by the risk  
3 reduction associated with the numerous mechanisms that allow for rate changes in between rate  
4 cases. Staff will expound upon its position as part of its rebuttal testimony as well as address  
5 the direct testimony of Ameren Missouri witness Ann E. Bulkley.

6           *Staff Expert/Witness: Jason Kunst, CPA*

7           **IV. Rate Base**

8           **A. Gas Investments and the Smart Meter Program**

9           **1. Gas Investment**

10          Ameren Missouri has included various capital investments in its gas system for which  
11 it seeks recovery of in rates in this proceeding:

- 12          • Main Replacement Program - to identify risk areas based on the Company's  
13           Distribution Integrity Management Program ("DIMP") in order to prioritize  
14           replacement projects. This program provides additional or accelerated action under  
15           the DIMP to address threats such as excavation damage, Aldyl-A plastic pipe  
16           material flaws, and mechanical couplings.
- 17          • Columbia Operations and Training Center expansion project, which Ameren  
18           Missouri anticipates will be placed in-service before the proposed true-up period in  
19           this case
- 20          • Reinforcement of the northwest Columbia distribution system
- 21          • Other investments needed to maintain and improve the safety, efficiency, and  
22           resiliency of the distribution system.

23          **Smart Meter Program**

24          \*\* [REDACTED]  
25          [REDACTED]  
26          [REDACTED]  
27          [REDACTED]  
28          [REDACTED]

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED] \*\*

7 As part of the Smart Meter Program, Ameren Missouri plans to begin upgrading its gas  
8 system by retrofitting AMI gas modules onto existing gas meters beginning mid-year 2023,  
9 and plans to have the entire gas population retrofitted with AMI modules by approximately  
10 end-of-year 2024. The Company intends to retrofit its entire meter population, roughly 135,000  
11 meters with AMI gas modules, however no AMI gas modules have been deployed within  
12 Ameren Missouri’s service territory to date.

13 *Staff Expert/Witness: Jane C. Dhority*

14 **B. AMI Software – Gas Operations**

15 During the test year, Ameren Missouri invested in Advance Metering Infrastructure  
16 (AMI) software that enables the use of AMI meters. Currently Ameren Missouri has electric  
17 AMI meters, but does not have gas AMI meters. Ameren Missouri has removed \$4,547,000  
18 from rate base to reflect that the AMI software is not used and useful with respect to its gas  
19 operations. Ameren Missouri also removed \$1,124,402 from accumulated depreciation reserve  
20 to reflect the removal of the AMI software. Staff concurs with Ameren Missouri on these  
21 adjustments, however Ameren Missouri would like to defer any amortization relating to this  
22 investment that occurs after the new rates in this case become effective and the plant becomes  
23 used and useful. Ameren Missouri is requesting rate base treatment in a future rate case and  
24 carrying costs on the deferral.

25 The “matching principle” as typically referred to in Missouri utility rate regulation  
26 requires that all major components of a utility’s cost of service be measured at the same point  
27 in time in developing customer rates. Including plant that is not used and useful would violate  
28 this principle, thus this deferral allows Ameren Missouri to recover plant invested after the  
29 true-up period and violates the matching principle. Staff does not recommend allowing Ameren  
30 Missouri to defer the amortization.

1 *Staff Expert/Witness: Kimberly K. Bolin*

2 **C. Plant-in-Service**

3 The plant-in-service balances represent the direct assigned or allocated plant  
4 additions and retirements of Ameren Missouri's actual gas plant as of December 31, 2020 with  
5 estimated adjustments to reflect the value of plant-in-service through the true-up cutoff of  
6 September 30, 2021. These estimates will be replaced with actual amounts as part of Staff's  
7 true-up audit in this case.

8 *Staff Expert/Witness: Christopher D. Caldwell*

9 **D. Accumulated Depreciation Reserve**

10 The depreciation reserve balances represent the rate base value of Ameren Missouri's  
11 actual depreciation reserve for gas only assets as well as allocated portions of general plant  
12 assets to Ameren Missouri's gas operations, as of December 31, 2020 with estimated  
13 adjustments to reflect the value of the accumulated depreciation reserve through the true-up  
14 cutoff of September 30, 2021. These estimates will be replaced with actual amounts as part of  
15 Staff's true-up audit.

16 *Staff Expert/Witness: Christopher D. Caldwell*

17 **E. Negative Accumulated Reserve**

18 Staff has reallocated negative reserve balances from Accounts 305 (Production  
19 Plant – Structures and Improvements), 311 (Production Plant – Liquid Petroleum  
20 Gas Equipment), and 387 (Distribution Plant – Other Distribution Systems). These accounts  
21 have no plant in service and therefore the remaining reserve balance has been zeroed out.  
22 To offset these negative balances, adjustments have been made to Accounts 374 (Distribution  
23 Plant – Land & Land Rights), 376 (Distribution Plant – Gas Mains), and 380 (Distribution  
24 Plant – Services).

25 *Staff Expert/Witness: David T. Buttig, PE*

26 **F. Capitalized Incentive Compensation**

27 Similar to payroll dollars, a portion of Ameren Missouri's short-term and long-term  
28 incentive compensation payments are capitalized and included in rate base. Staff has made an  
29 adjustment based upon its removal of the expense portion of incentive compensation to assign

1 a portion of the capitalized incentive compensation to shareholders. Staff will continue to  
2 review capitalized incentive compensation through the true-up cut-off date in this case.

3 *Staff Expert/Witness: Jason Kunst, CPA*

4 **G. Paperless Bill Credit Cost Removal**

5 As part of its review, Staff reviewed the costs associated with the paperless bill credit,  
6 which included costs for advertising paperless billing and capital upgrades to the billing system  
7 to process the bill credit. Staff has proposed an adjustment to remove allocated software costs  
8 to Ameren Missouri gas operations and the associated depreciation reserves.

9 *Staff Expert/Witness: Jason Kunst, CPA*

10 **H. Ameren Missouri Gas Operating Facilities**

11 **1. Operating Facilities**

12 During its review in Ameren Missouri's last gas rate, Case No. GR-2019-0077, Staff  
13 learned that Ameren Missouri initiated a facility action plan that received \*\* [REDACTED]

14 [REDACTED] \*\* The plan called for an evaluation of all facilities  
15 with the goal of either combining facilities or exiting older facilities to reduce the number of  
16 facilities that were owned or leased by Ameren Missouri for its electric and gas operations. In  
17 this case Staff has reviewed any facilities changes made by Ameren Missouri since its last rate  
18 case filing and is recommending adjustments to remove costs associated with the Bank of  
19 America lease for 800 Market Street in downtown St. Louis. Staff had made an adjustment to  
20 remove the rental revenues, rental expense, and other O&M expenses associated with the lease  
21 and the parking garage associated with it. Staff will continue to review any changes to Ameren  
22 Missouri's operating facilities during the true-up period.

23 **2. Columbia, Missouri Gas Operations and Training Facility**

24 During the course of its review in the most recent Ameren Missouri gas rate case, Case  
25 No. GR-2019-0077, Staff discovered that Ameren Missouri had completed the construction of  
26 a new gas operations center located at 2001 Maguire Boulevard and \*\* [REDACTED]

27 [REDACTED]  
28 [REDACTED]  
29 [REDACTED]. \*\* The new facility was completed

1 for a total cost of \*\* [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]  
8 [REDACTED] \*\*

9 Since the true-up cutoff in that case of May 31, 2019, Ameren Missouri has entered  
10 into a contract to sell the land located at 210 Orr Street to the City of Columbia for  
11 \$950,000. Additionally, a recent appraisal of the property valued it at \*\* [REDACTED]  
12 [REDACTED] \*\*. The contract to sell the  
13 property to Columbia is contingent upon the successful passage of the November 2021  
14 City of Columbia Parks and Recreation Ballot Initiative, and if the ballot measure does not  
15 pass the City may terminate the contract. Since the vote on the ballot measure and the  
16 \*\* [REDACTED] \*\* are outside of the true-up date of September 30, 2021 established in  
17 this case, Staff is not making any recommendation at this time with regards to the sale of the  
18 property. However as Ameren Missouri may realize a significant gain on the sale of the  
19 property after the true-up cutoff in this rate proceeding, it is Staff's position is that in Ameren  
20 Missouri's next natural gas rate case, it may be appropriate to make an adjustment to apply any  
21 gains realized on the sale as an offset to the higher cost replacement facility.

22 *Staff Expert/Witness: Jason Kunst, CPA*

23 **I. Cash Working Capital (CWC)**

24 Cash working capital (CWC) represents the amount of cash required for day-to-day  
25 expenses incurred in providing service to ratepayers. In some instances, payments for goods  
26 and services are paid shortly after, or even before, the goods are utilized or the services are  
27 performed. In other instances, the payment for the good or service may occur long after the  
28 good or service is received. If, on average, the payment for goods or services utilized in the  
29 provision of utility service is made before the receipt of related customer revenues, the utility  
30 will have a relatively constant investment in cash working capital (i.e., an investment in the

1 prepayment of cash expenses made in advance of the receipt of related service revenue.) In this  
2 instance, the utility's shareholders are compensated for the funds they provide in advance by  
3 inclusion of these funds in rate base. In that way, the shareholders earn a return on the funds  
4 they have invested. Conversely, if, on average, the payment for goods or services utilized in  
5 the provision of utility service is made after receipt of related customer revenues, the utility will  
6 enjoy a relatively constant source of cost-free funds supplied by ratepayers (i.e., ratepayers  
7 provide cost free capital to the utility in the form of payment for utility service prior to the time  
8 that the utility is required to pay "cash" for the goods and services consumed in providing the  
9 utility service). Ratepayers under this circumstance are compensated for the funds they provide  
10 by reducing rate base consistent with the amount of the customer-provided cash  
11 working capital.

12 To determine the amount of cash working capital provided by both the ratepayers and  
13 shareholders, Staff performs a lead/lag study. The lead/lag study involves analysis of the timing  
14 of when expenses are paid to suppliers, employees, etc., and when the utility receives revenues  
15 from customers for the services it provides. A positive cash working capital requirement  
16 indicates that the shareholders provided the working capital for the test year. This means, on  
17 average, the utility paid the expenses incurred to provide the electric service to the ratepayers  
18 before the ratepayers paid for the service. A negative cash working capital requirement  
19 indicates that the ratepayers provided the working capital during the test year. This means, on  
20 average, the ratepayers paid for their electric service before the utility paid the expenses  
21 incurred to provide that service.

22 In this case, Staff did not perform a full lead/lag study as Ameren Missouri has recently  
23 been before the Commission for a general rate case. However, Ameren Missouri did prepare a  
24 lead/lag study specific to costs incurred during the 12 month period ending December 31, 2020.  
25 Staff has reviewed both the revenue and expense lags calculated by Ameren Missouri for  
26 accuracy and reasonableness. While Staff has adopted many of the revenue and expense lags  
27 proposed by Ameren Missouri, Staff determined that an analysis was needed with respect to the  
28 revenue lag and expense lags associated with sales tax and the expense lags for payroll, and  
29 payroll taxes. These differences are discussed in more detail below.

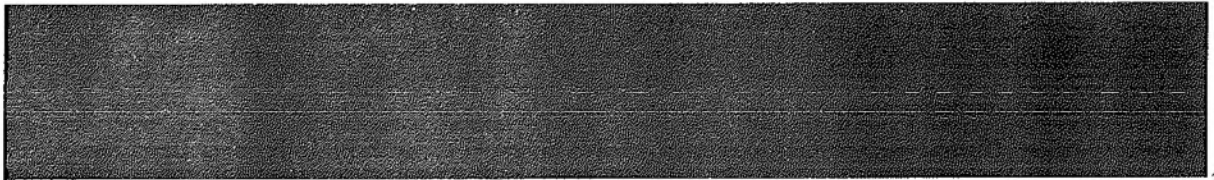


1 Staff has proposed a different revenue lag than Ameren Missouri. Staff agrees with  
2 the Company's calculations, the difference in lag amounts is due to Staff's use of  
3 updated information. Ameren Missouri's calculation of collection lag is based on data covering  
4 the 12 months beginning September 2019 through August 2020. Staff's adjustment is based on  
5 bill payment data for the 12 month period beginning January 2020 and ending December 2020.

6 Sales tax is collected by Ameren Missouri from its ratepayers and then remitted to the  
7 taxing authorities based on the arrangement established with the taxing authorities. Since the  
8 Company collects the tax for the taxing authority and a service is not provided to the ratepayer  
9 by the Company, measurement of the revenue and expense lag calculations start with the  
10 beginning point of the collection lag for sales tax. The collection lag is the period of time  
11 between the day the bill is placed in the mail by the Company and the day the Company  
12 receives Payment from the ratepayers for services provided. As a result the sales tax has a  
13 shortened revenue and expense lag. Staff recommends a shortened revenue and expense lag for  
14 sales tax in this case.

15 \*\* [REDACTED]

16 [REDACTED]  
17 [REDACTED]  
18 [REDACTED]  
19 [REDACTED]  
20 [REDACTED]  
21 [REDACTED]  
22 [REDACTED]  
23 [REDACTED]  
24 [REDACTED]  
25 [REDACTED]  
26 [REDACTED]  
27 [REDACTED]



1 \*\*

2 The negative lead time associated with the pay date change reduces the expense lead for payroll  
3 and payroll taxes, and increases the positive net lag associated with these expenses which results  
4 in an increase to CWC and its associated rate base value. In calculating the expense lead for  
5 payroll and payroll taxes, Staff has set the lead time for the management payroll to zero for an  
6 overall payroll expense lag of 12.01 to reflect the management payroll as it was prior to the  
7 change in November 2018.

8 Ameren Missouri has proposed different expense lags for electric operations and gas  
9 operations for payroll and withholdings, employee benefits, pensions and OPEBS, incentive  
10 compensation, and gross receipts taxes. Ameren Missouri incurs costs for both its electric and  
11 gas employees for payroll, incentive compensation and all employee benefits at the same time  
12 as the dates these payments are made are the same for both of company's operations and the  
13 dollar amounts expended are all at once, not separately calculated and then separately expended  
14 for gas and electric operations. The same is true for gross receipts taxes. Whether the company  
15 is receiving payment for an electric or gas bill, the same percentage of tax is being applied to  
16 the revenue and that revenue must be paid to the taxing authority at the same time. Staff had  
17 expected that these lags would be the same. The Company's response to Data Request 0515 in  
18 case No. ER-2021-0240, explains "for example, there are two components of the incentive  
19 compensation expense lag. The Executive Incentive Compensation Plan is paid in February,  
20 while all other payments occur in March. Even though these payments occur on the same dates  
21 for gas and electric the relative amounts paid on these dates are different between gas and  
22 electric. It is the difference in these relative amounts that results in the expense lag for Incentive  
23 Compensation in total to be different between gas and electric." The difference in these lags is  
24 due to Ameren Missouri's use of a weighted average of the applicable components of each lag,  
25 in this case the component that is causing the difference between gas and electric operations is  
26 the specific dollar amounts. Rather than taking all of payroll and performing the calculation,  
27 the gas amounts are first allocated and then the separate lags are calculated. Staff has set these

1 lags to be the same to reflect the reality of the transaction, which is that all of the items above  
2 are paid at one time.

3 All of Staff's recommended revenue and expense leads can be found in Accounting  
4 Schedule (8). Staff's overall lead/lag study resulted in a negative CWC requirement for Ameren  
5 Missouri. This means that the ratepayers are currently providing the working capital, in the  
6 aggregate, to Ameren Missouri. Therefore, the ratepayers will be compensated for the working  
7 capital through a reduction in rate base.

8 *Staff Expert/Witness: Jane C. Dhority*

9 **J. Natural Gas Storage**

10 \*\* [REDACTED]  
11 [REDACTED]  
12 [REDACTED]  
13 [REDACTED] \*\*

14 Natural gas inventory fluctuates over time, where typically gas volumes increase in the  
15 summer and decrease during the winter. The stored natural gas represents an investment by  
16 Ameren Missouri and, therefore, is included in rate base where the utility has an opportunity to  
17 earn a return on that investment. A 13-month average of costs is used to account for the  
18 fluctuation in the level of inventory over time; thus, Staff has included in rate base a 13-month  
19 average of natural gas inventory quantities and corresponding prices using the month end  
20 balances for the period of June 2020 to June 2021. Staff will re-examine the natural gas storage  
21 inventory as part of its true-up audit.

22 *Staff Expert/Witness: Lisa M. Ferguson*

23 **K. Prepayments; Materials and Supplies; Customer Advances & Deposits**

24 **1. Prepayments**

25 Prepayments are items for which amounts are paid in advance of the period to  
26 which they apply and typically represent items such as insurance, rents, employee benefit  
27 costs and maintenance agreements. Ameren Missouri is required to provide upfront funding  
28 for these expenses, and, therefore, it is appropriate to include them in rate base. In Case No.  
29 GR-2019-0077, Ameren Missouri ended the Energy Efficiency MO Collaborative. According  
30 Ameren Missouri responses to Staff Data Request No. 282.1 in Case No. ER-2021-0240,

1 Ameren Missouri added AGA Membership Dues to prepayments. Staff does not see the need  
2 for a prepayment of membership costs and does not believe customers need to pay a return on  
3 prepaid memberships in addition to the cost of the membership, and therefore, Staff has  
4 removed this membership cost from its recommended level of prepayments. Staff has included  
5 in rate base a level of prepayments that reflects the 13-month average ending June 30, 2021.  
6 Staff will review this issue again as part of its true-up audit in this case.

7 *Staff Expert/Witness: Christopher D. Caldwell*

8 **2. Materials and Supplies**

9 Ameren Missouri maintains a variety of materials and supplies in its inventory in order  
10 to meet the day-to-day needs of its utility operations. Staff included a 13 month average ending  
11 June 30, 2021 of the materials and supplies inventory in rate base in this case. Staff will  
12 reexamine the level of materials and supplies as part of its true-up audit.

13 *Staff Expert/Witness: Christopher D. Caldwell*

14 **3. Customer Deposits**

15 Customer deposits represent funds received from Ameren Missouri's customers as a  
16 security against potential loss arising from failure to pay for utility service received. Until the  
17 deposit is refunded, customer deposits represent a source of funds available to the Company  
18 and are included as an offset to the rate base investment.

19 Staff has included a 13-month average of June 2020 through June 2021 of  
20 customer deposits in the cost of service. Please refer to Section VI.D.3. of this Report  
21 regarding the income statement and interest on customer deposits for an explanation of the  
22 calculation of interest on customer deposits. Staff will re-examine customer deposits as part of  
23 its true-up audit.

24 *Staff Expert/Witness: Christopher D. Caldwell*

25 **4. Customer Advances**

26 Customer advances are funds provided to the Company by individual customers to  
27 reimburse in part the cost of providing their individual gas service. Unlike customer deposits,  
28 customer advances are never refunded and no interest is paid to customers for the use of their

1 money. These funds represent an interest-free source of capital to the Company. Therefore, it  
2 is appropriate to include these funds as a reduction, or offset to rate base.

3 Based on Ameren Missouri's response to Staff Data Request No. 0239.1, there was an  
4 increase in new gas main extensions for new development projects (commercial and new  
5 residential) occurring in Cape Girardeau, Warrenton, Jefferson City, Jackson and California in  
6 Ameren Missouri's gas service territory. Staff has included a 13-month average for the period  
7 June 2020 to June 2021 as an offset to rate base. Customer advances will be re-examined as  
8 part of Staff's true-up audit in this case.

9 *Staff Expert/Witness: Christopher D. Caldwell*

10 **L. Pensions and Other Post Employment Benefit – Rate Base**

11 See the discussion in Section VI.C.3. – Pensions and Other Post-Employment  
12 Benefits (“OPEBs”).

13 *Staff Expert/Witness: Paul K. Amenthor*

14 **M. Accumulated Deferred Income Taxes (ADIT)**

15 Ameren Missouri's Accumulated Deferred Income Tax Reserve (“ADIT”) represents, in effect,  
16 a prepayment of income taxes by Ameren Missouri's customers to Ameren Missouri prior to  
17 payment being made by Ameren Missouri to taxing authorities. As an example, because  
18 Ameren Missouri is allowed to deduct depreciation expense on an accelerated basis for income  
19 tax purposes, the depreciation expense deduction used for income taxes paid by Ameren  
20 Missouri is considerably higher than depreciation expense used for ratemaking purposes. This  
21 results in what is referred to as a “book-tax timing difference” and creates a deferral of income  
22 taxes to the future. The net credit balance in the deferred tax reserve represents a source of  
23 cost-free funds to Ameren Missouri. Therefore, Ameren Missouri's rate base is reduced by the  
24 deferred tax reserve balance to avoid having customers pay a return on funds that are provided  
25 cost-free to Ameren Missouri. Staff has included the ADIT balance as of June 30, 2021 in its  
26 direct cost of service. As part of its true-up audit in this case, Staff will re-examine the ADIT  
27 balances to make sure all items included in those balances are consistent with the other  
28 components of the cost of service and that they reflect the current balances at the true-up cut-  
29 off date, September 30, 2021. Based on this true-up examination, Staff may make additional  
30 adjustments to the cost of service as necessary.

1 *Staff Expert/Witness: Lisa M. Ferguson*

2 **V. Allocations**

3 A subsidiary of Ameren Corporation, Ameren Services Company (Ameren Services),  
4 provides various management and administrative support services to Ameren Missouri and  
5 affiliate companies. As part of its audit process, Staff reviewed the methods used by Ameren  
6 Services to assign and allocate costs to Ameren Missouri's electric and gas operations. Under  
7 Ameren Services' corporate cost allocation system, costs are categorized into four types:

8 1) Direct – Costs that can be identified as being applicable to products or services  
9 provided to a single affiliate;

10 2) Direct Allocated – Costs that can identified as being applicable to products or services  
11 provided to two or more affiliates;

12 3) Functional Indirect – Costs such as office supplies and administrative labor  
13 accumulated by functional area and allocated to all affiliates based on the ratio of total direct  
14 and direct allocated costs charged to each affiliate;

15 4) Corporate Indirect – Costs such as the Service Company's banking activities and rent  
16 allocated based on the ratio of total direct and directly allocated costs charged to each affiliate.

17 The allocation of costs and methods used to allocate costs from Ameren Services are  
18 outlined in Ameren Missouri's cost allocation manual (CAM) in Appendix 3, Tab Q filed  
19 May 14, 2021 under Tracking No. BAFT-2021-1870 in the Commission's Electronic Filing  
20 Information System (EFIS).

21 Ameren Missouri filed a CAM in Case No. EO-2017-0176, however that CAM has yet  
22 to be approved. On June 17, 2018, Staff filed a motion to open a working docket, Case No.  
23 AW-2018-0394, for a review and consideration of rewriting of existing and writing of new  
24 Affiliate Transaction Rules. On August 16, 2019, Staff and Ameren Missouri filed a Motion to  
25 Stay the proceedings of Case No. EO-2017-0176 until completion of the workshop docket and  
26 a formal rulemaking respecting the Affiliate Transaction Rules.

27 In Case No. ER-2019-0335, the parties agreed that Ameren Missouri would file or  
28 provide (concurrently with its provision of direct case workpapers) the following items with  
29 regard to affiliate transactions in its next general rate case (this proceeding):

1           The total amount of affiliate transactions charges to Ameren Missouri and affiliate  
2 transactions charges by Ameren Missouri to an affiliate in the test year, by account and affiliate.

3           The Fully Distributed Cost Study (the “FDC Study”) being conducted as agreed upon  
4 with the Staff as provided in the Non-Unanimous Stipulation and Agreement submitted in File  
5 No. EO-2017-0176 (the “EO-2017-0176 Stipulation”).

6           To the extent the FDC Study did not study the fully distributed cost of Ameren Missouri  
7 to itself to perform a function currently performed by Ameren Services Company (“AMS”)  
8 (legal, human resources, accounting, etc.), and only studied costs to AMS, a detailed  
9 explanation for each function that demonstrates why an FDC study for Ameren Missouri is not  
10 necessary or reasonable.

11           Where benchmarking is used to assess AMS costs: (1) a detailed description of how  
12 Ameren performed or obtained its benchmarking; (2) identification of all benchmarking results  
13 and any steps taken to address the results; and (3) all associated AMS or Ameren Missouri  
14 work-papers and supporting documents.

15           Identification of all affiliate transaction costs in the test year that were incurred by  
16 Ameren Missouri following a request for proposal issued by or on Ameren Missouri’s behalf  
17 and receipt of bids.

18           Identification of all affiliate transaction costs in the test year that were incurred by  
19 Ameren Missouri without a request for proposal issued by or on Ameren Missouri’s behalf and  
20 receipt of bids, and an explanation of why competitive bidding was not necessary.

21           Identification of Ameren Corporation board of director and investor relations costs  
22 being charged to Ameren Missouri through an allocation process, and a detailed explanation of  
23 the allocation factors or process by which the charges are allocated to Ameren Missouri.

24           The General Office Building space study as provided for in the EO-2017-0176  
25 Stipulation.

26           Year-end Ameren Missouri and AMS employee organization charts showing all  
27 position at year end 2019, it being agreed that the “organization charts” can consists of a  
28 spreadsheet listing all such employees and their titles, by employer.

1 Staff verified that Ameren Missouri provided all of the above items except for  
2 Items 5 and 6. Ameren Missouri claims no costs fall into either category and thus did not  
3 identify the costs.

4 Ameren Services evaluates and updates the allocation factors included in the Ameren  
5 Missouri CAM at the beginning of each calendar year, unless there is a significant change in  
6 circumstances that would require the allocation factors be updated immediately. Ameren  
7 Services' Service Request Manual requires that Ameren Services' Internal Audit Department  
8 perform an audit and report each year of Ameren Service's Service Request System and Service  
9 Request policies, operating procedures, and controls.

10 **A. 2021 Allocation Factors**

11 Ameren Services made no significant changes to the allocation factors for 2021 and  
12 made no changes to include new or remove existing allocation factors.

13 Staff has proposed an adjustment to annualize the Ameren Services costs allocated to  
14 Ameren Missouri during the 12 months ending December 31, 2020, using the updated Ameren  
15 Services allocation factors for 2021.

16 *Staff Expert/Witness: Kimberly K. Bolin*

17 **B. Software Allocations**

18 Before January 1, 2017, Ameren Corporation software assets were owned entirely by a  
19 subsidiary, such as Ameren Missouri, Ameren Illinois, or Ameren Transmission. An affiliate  
20 using the software was charged rental expense for its use, and the subsidiary owning the  
21 software recognized rental revenue. This policy was changed in 2017 to allow joint ownership  
22 between Ameren Missouri, Ameren Illinois, and Ameren Transmission of software assets. This  
23 eliminated the need for intercompany rental charges. Under the new policy, these affiliates  
24 agree to an ownership allocation percentage based on allocation factors and sign a joint  
25 ownership agreement for use of the software assets.

26 However, prior to May 2019 the use of the enterprise-wide software by affiliates other  
27 than Ameren Missouri, Ameren Illinois, and Ameren Transmission was not considered when  
28 developing joint allocation agreements. During its last gas rate case, Case No. GR-2019-0077,  
29 Ameren Missouri acknowledged that although prospectively, use of the software assets would  
30 be allocated to affiliates enterprise-wide, no adjustment was made from prior agreements to



1 allocate assets to affiliates other than Ameren Missouri, Ameren Illinois, and Ameren  
2 Transmission. In Ameren Missouri's last electric rate case, Case No. ER-2019-0335,  
3 Ameren Missouri agreed to remove a percentage of enterprise-wide software from rate base  
4 and to remove the associated amortization that represents the aggregate usage of Ameren  
5 Corporation's other subsidiaries.

6 In response to Staff's Data Request No. 204.3, in the current electric case, Ameren  
7 Missouri provided recording entries of adjustments that removed a portion of shared software  
8 and reallocated them to Ameren Corporation. Staff reviewed plant and reserve amounts  
9 associated with the shared software assets and they appear to be reasonable for inclusion in the  
10 rate base calculation. Staff will continue to review this issue through the true up cutoff date of  
11 September 30, 2021.

12 *Staff Expert/Witness: Paul K. Amenthor*

13 **C. Allocation of Ameren Missouri Costs Between Electric and Gas Operations**

14 During the discovery process in this case and the electric case (Case No.  
15 ER-2021-0240), Staff discovered the electric charges that were erroneously allocated to gas  
16 operations in this case. These instances were limited to the administrative and general accounts  
17 (A&G) 921, 923 and 935 because of the recording process in which Ameren Missouri allocates  
18 electric and gas in these particular accounts. During the last rate case, Case No. GR-2019-0077,  
19 after the same problem was brought to Ameren Missouri's attention in the spring of 2019,  
20 Ameren Missouri relayed to Staff that a special code would be added to the general ledger  
21 recording process that will distinctly identify electric and gas charges in order to prevent this  
22 mis-recording. Staff expected that Ameren Missouri would have had this issue resolved by this  
23 current case. However, based on discussions with company personnel, this coding change to  
24 Ameren Missouri's general ledger has not occurred as the company expects to change its  
25 general ledger software around the end of 2022 or the beginning of 2023.

26 *Staff Expert/Witness: Christopher D. Caldwell*