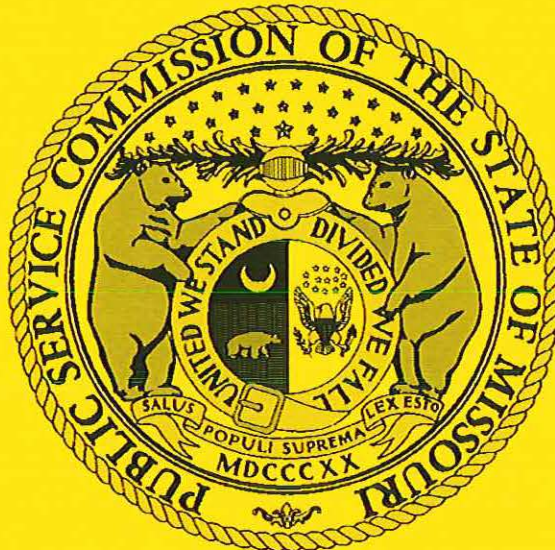


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STAFF REPORT

COST OF SERVICE



UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

GENERAL RATE CASE

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*Jefferson City, Missouri
April 2019*

** Denotes Confidential Information **



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COST OF SERVICE REPORT OF
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-2019-0077**

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

6 **A. Background**

7 On December 3, 2018, 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 \$4.26 million exclusive of applicable gross receipts, sales,
11 franchise or occupational fees or taxes, based on a 10.3% return on equity. According to
12 Ameren Missouri, the rate increase was driven by several factors, including rate base
13 additions since the last gas general rate case (Case No. GR-2010-0363) and depreciation rate
14 changes. Other drivers for the filing of this general rate case include Ameren Missouri's desire
15 to begin flowing back the benefit of the federal income tax decrease to customers and the
16 desire to restart its Infrastructure System Replacement Surcharge (“ISRS”).¹

17 Ameren Missouri filed its rate case using a test year twelve-month period ending
18 June 30, 2018, and proposed adjustments to its case reflecting anticipated changes through the
19 true-up period of May 31, 2019, including those items listed in *Staff’s Motion to Establish*
20 *Test Year and True-Up Cutoff Date*. These dates were adopted by the Commission in its
21 *Order Granting Staff’s Motion for Test Year and True-Up Cutoff Date*.

22 Ameren Missouri also filed a Motion for Approval of Interim Rate Reduction and for
23 Expedited Treatment requesting an order approving tariff sheets implementing interim rates
24 that reflect the effect of the Tax Cuts and Jobs Act of 2017 (“TCJA”). The TCJA, which took
25 effect on January 1, 2018, reduced the federal income tax rate applicable to corporations from
26 35% to 21%. The increase in general rates reflects the reduced federal income tax rate in the
27 annual revenue requirement, but since the request is subject to an 11-month process,
28 Ameren Missouri expressed its desire to flow back the benefits of the TCJA reductions

¹ GR-2019-0077 Minimum Filing Requirements letter.

1 (approximately \$1.05 million on an annualized basis) as soon as practical while new rates are
2 litigated (“interim period”).

3 On December 14, 2018, Ameren Missouri and Staff entered into a Stipulation and
4 Agreement (“TCJA Stipulation”). Instead of reducing rates by the approximately
5 \$1.05 million (on an annualized basis) as proposed by Ameren Missouri, the Signatories to
6 the TCJA Stipulation agreed to reduce rates by \$1.94 million (on an annualized basis) during
7 the interim period. The tariff sheets attached to the TCJA Stipulation as Attachment A, were
8 to be filed by Ameren Missouri with an effective date of January 2, 2019. The Signatories to
9 the TCJA Stipulation also agreed to establishment of a tracker to defer any amounts of
10 plant-related excess accumulated deferred income taxes (“Excess ADIT”) that is above or
11 below the amount set in rates. The proposed tracker is consistent with a similar mechanism
12 approved in File No. ER-2018-0362 for Ameren Missouri’s electric operations.
13 The Commission issued an Order Approving [TCJA] Stipulation and Agreement on
14 December 22, 2018.

15 Ameren Missouri provides natural gas service to 131,040 customers in Missouri² and
16 has service territory in central, eastern, and southeastern Missouri. Ameren Missouri last
17 sought a general change in its natural gas retail rates when it filed a request for a \$11.9 million
18 annual increase on June 11, 2010 in Case No. GR-2010-0363. As a result of the Commission
19 Order approving a unanimous stipulation and agreement filed by the parties on
20 January 4, 2011 in that proceeding, Ameren Missouri was granted an annual rate increase
21 of \$9 million, February 1, 2011.

22 *Staff Expert/Witness: Natelle Dietrich*

23 **B. Staff’s Revenue Requirement Recommendation**

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

² According to GR-2019-0077 Minimum Filing Requirements, Schedule 3, page 1.

1 Staff's recommended revenue requirement for Ameren Missouri based upon a test
2 year of twelve months ending June 30, 2018, including true-up estimates through
3 May 31, 2019 is \$1,244,206, which represents an offset to the current \$1,935,368 interim rate
4 reduction at Staff's recommended 9.5% mid-point return on equity as more specifically
5 explained below by Staff witness Lisa M. Ferguson. The combination of the \$1,935,368
6 interim rate reduction previously put into effect and Staff's recommended revenue
7 requirement in this case of \$1,244,206 would result in a net overall permanent reduction in
8 rates of \$691,162 to customers on an annual basis. The impact of Staff's recommended
9 revenue requirement on each of Ameren Missouri's rate classes will be discussed in
10 Staff's rate design and class cost of service report, to be filed May 3, 2019.

11 *Staff Expert/Witness: Natelle Dietrich*

12 **C. Staff's Gross Revenue Requirement Recommendation and Impact on**
13 **Total Retail Rate Revenue**

14 Staff's recommended gross revenue requirement of \$1,244,206 would represent an
15 increase in Ameren Missouri's total non-gas retail rate revenues on an annual basis.³ This
16 increase pertains to Ameren Missouri's margin revenues only and does not include revenues
17 collected through the Purchased Gas Adjustment rate mechanism. It is important to note, that
18 Staff's general rate increase recommendation offsets the approximate \$1.94 million (on an
19 annualized basis⁴) interim natural gas rate reduction that is currently in effect as a result
20 of resolution to address the impacts of the TCJA effective on January 2, 2019.

21 Once permanent rates ordered by the Commission in this rate proceeding go into
22 effect, the interim natural gas rate reduction associated with the TCJA will be reset to
23 zero and the approximate \$1.94 million interim rate reduction will then be part of
24 Ameren Missouri's general retail rates. Staff's \$1,244,206 gross revenue requirement or

³ Please refer to Staff's Accounting Schedules filing, Schedule 1, Line 13 for Gross Revenue Requirement of \$1,244,207 at Staff's midpoint rate of return recommendation of 7.207%. Staff's recommendation is a \$691,162 reduction of permanent rates currently in effect.

⁴ On January 23, 2019, the Commission issued an *Order Adopting Procedural Schedule* that ordered a November 2, 2019 Operation of Law date for permanent rates in this rate proceeding. If permanent rates were to go into effect on November 2, 2019, or earlier due to Commission approval of a global settlement, then the actual interim rate reduction would total to some amount less than \$1.94 million, due to the fact that interim rate reduction would be in effect for a period less than one year.

1 incremental rate increase from current interim rates in this rate case, takes into account the
2 interim natural gas rate reduction (on an annualized basis) and is calculated as follows: the
3 difference between the \$1,935,368 million of interim natural gas rate reduction and
4 Staff's recommended \$691,162 reduction to permanent rates⁵. Stated another way Staff's
5 recommendation reflects a proposed \$691,162 reduction to the level of permanent rates
6 currently in effect.

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

8 **D. Recommendation of Future Filing Requirement**

9 As part of this proceeding, Staff reviewed the Ameren Board of Directors ("BOD")
10 meeting minutes and related materials and presentations. Specifically, during the regular
11 meeting of the Ameren Board of Directors on ** _____ **, there was a
12 discussion regarding ** _____

13 _____
14 _____

- 15 • _____
16 _____
- 17 • _____
- 18 • _____
- 19 • _____
20 _____
- 21 • _____
22 _____
- 23 • _____
24 _____
- 25 • _____
26 _____

**

⁵ Please refer to Staff's Accounting Schedules filing, Schedule 1, Line 10 for Revenue Requirement of (\$691,162) and Line 12 for Interim Natural Gas Rate Reduction of approximately \$1.94 million.

1 During this same discussion, the Ameren Board also discussed ** _____

2 _____

3 _____

4 • _____

5 ○ _____

6 ○ _____

7 ○ _____ **

8 **Staff Recommendation For Future Concurrent Electric and Natural Gas Rate Case Filing**

9 During the course of its audit of Ameren Missouri's natural gas books and records,
10 Staff discovered three issues that would be appropriate to address within the context of a
11 concurrent natural gas rate case filing that corresponds with ** _____

12 _____ 6 _____

13 _____ **

14 Specifically these three issues are briefly summarized below:

15 1. Ameren Missouri has potential to ** _____

16 _____

17 _____ ** As part of this rate case and described later in this Report, Staff

18 witness Jason Kunst recommends ** _____

19 _____

20 _____

21 _____ ** In addition, Staff witness Kunst also

6 ** _____

_____ **

1 recommends that Ameren Missouri be required to file a concurrent electric and natural gas
2 rate case ** _____

3 _____
4 _____
5 _____
6 _____
7 _____
8 _____
9 _____ ** For a complete discussion of this
10 issue please refer to Section VI.E.1. of this Report regarding property tax expense.

11 2. Ameren Missouri has discovered software allocation issues for existing
12 software items that are jointly used for electric and gas operations that have not been allocated
13 properly in past Ameren Missouri electric rate cases. Later in this Report, Staff witness Kunst
14 describes the software allocation issues. Staff witness Kunst also recommends that
15 ** _____

16 _____
17 _____ ** Staff recommends this two-step approach for this issue in
18 order to prevent a double recovery situation that would result if Ameren Missouri's proposal
19 contained in the direct testimony of Ameren Missouri witness Laura M. Moore were accepted
20 by the Commission. The software allocation double recovery solution at issue, as filed
21 in Ameren Missouri's direct testimony, is worth approximately ** _____ ** of
22 Ameren Missouri's approximate \$4.3 million overall natural gas rate increase request. Staff
23 recommends addressing the software allocation issue beginning in Ameren Missouri's next
24 electric rate case ** _____ ** in order to remove gas related portions of
25 software costs from electric rates. ** _____

26 _____
27 _____

1 _____⁷ ** For a complete discussion of this issue please refer to Section V.C. of this
2 Report regarding software allocation.

3 3. A reduction in overall Missouri corporate income tax rates will go into
4 effect on January 1, 2020. Staff estimates that this state corporate income tax rate reduction
5 may reduce Ameren Missouri's natural gas cost of service calculation by approximately
6 \$860,000 on an annual basis. In Staff's opinion, it would be appropriate to reflect this
7 reduced tax rate as part of a future concurrent electric and natural gas rate case filing as
8 previously described.

9 These three issues provide support for Staff's recommendation that the Commission
10 require Ameren Missouri to ** _____

11 _____
12 _____
13 _____
14 _____
15 _____ ** Staff's recommendation, if ordered by this Commission, will
16 provide an opportunity for ** _____

17 _____ **
18 It will also, allow for an appropriate remedy of the software allocation issue without the need
19 for a double recovery tracking mechanism. Finally, the Commission could timely address the
20 reduction in Ameren Missouri's corporate income tax rates and reflect that reduction in
21 Missouri natural gas rates within a reasonable period of time.

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

⁷ Staff recommends the same conditions as stated in footnote 6 above. ** _____

_____ **

1 **Staff Analysis**

2 **II. Test Year/True-Up Period**

3 Staff's revenue requirement as presented in its Direct Accounting Schedules includes
4 the expected changes for certain major items within the true-up period, May 31, 2019.
5 For example, the plant and depreciation reserve balances have been adjusted to reflect the
6 anticipated additions through the true-up cutoff of May 31, 2019. Staff plans to review and
7 reflect actual changes to the value of this item along with other additional components of the
8 cost of service during its true-up audit. Staff is not adopting the value of the items quantified
9 as estimated inclusions for the purpose of setting Ameren Missouri's gas rates, but Staff
10 included these items as placeholders, pending completion of Staff's true-up audit. The true-up
11 information to be filed is described in *Staff's Motion to Establish Test Year and True-Up*
12 *Cutoff Date* that was filed on January 29, 2019 and adopted by the Commission in its order
13 issued on February 19, 2019.

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

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

16 **A. Summary**

17 Staff estimated the cost of common equity ("COE") for Ameren Missouri natural gas
18 distribution assets by applying well-respected and widely-used methodologies to data derived
19 from a carefully-assembled proxy group of comparable companies in the gas utility industry.
20 Staff compared a current COE estimate for the gas proxy group to a COE estimate for the
21 same group using data from the timeframe during Spire Missouri's last rate cases⁸ to provide
22 a relative estimate of a reasonable allowed ROE for Ameren Missouri's current rate case.
23 Staff weighs the Commission's most recent decision in the Spire Missouri cases to maintain
24 consistency and predictability with Commission decisions, and to recommend an ROE that
25 fairly balances industry risks with historically allowed ROEs. Staff's Discounted Cash Flow
26 ("DCF"), Multi-stage DCF, and Capital Asset Pricing Model ("CAPM") analyses for the

⁸ *In the matter of Spire Missouri (Laclede and MGE Divisions)*, Case Nos. GR-2017-0215 & GR-2017-0216 (*Amended Report & Order*, issued March 7, 2018) at p.28-45.

1 gas utility proxy group show the COE decreased since the Spire Missouri rate cases.
2 Ameren Missouri's allowed ROE should be based at the mid-point of Staff's recommended
3 allowed ROE range of 9.00% to 10.00%, with a point estimate of 9.50%. This results in a
4 ROR range of 6.96% to 7.46%, with a point estimate of 7.21%. Staff's results are shown in
5 the following table:
6

Recommended Allowed Rate of Return as of June 30, 2018 for Ameren Missouri					
Capital Component	Percentage of Capital	Embedded Cost	Allowed Rate of Return Common Equity Return of:		
			9.00%	9.50%	10.00%
Long-Term Debt	48.99%	4.93%	2.42%	2.42%	2.42%
Preferred Stock	1.01%	4.18%	0.04%	0.04%	0.04%
Common Equity	50.00%		4.50%	4.75%	5.00%
Total	100.00%		6.96%	7.21%	7.46%

7 The details of Staff's analysis and recommendations are presented in Schedules JS-1 –
8 JS-13 in Appendix 2.

9 **B. Analytical Parameters**

10 The determination of a fair rate of return is guided by principles of economic and
11 financial theory and by certain minimum Constitutional standards. Investor-owned public
12 utilities such as Ameren Missouri are private property that the state may not confiscate
13 without appropriate compensation. The United States Supreme Court has described the
14 minimum characteristics of a Constitutionally-acceptable rate of return in two frequently-cited
15 cases:⁹ *Bluefield Water Works & Improvement Co. v. Public Service Commission of West*
16 *Virginia*, and *Federal Power Commission v. Hope Natural Gas Co.*

⁹ *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).

1 From these two decisions, Staff derives and applies the following principles to guide it
2 in recommending a fair and reasonable ROR:

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

8 Embodied in these three principles is the economic theory of the opportunity cost of
9 investment. The opportunity cost of investment is the next best return that investors forego in
10 order to invest in similar risk investment opportunities that vary depending on market and
11 business conditions.

12 Methodologies of financial analysis have advanced greatly since the *Bluefield* and
13 *Hope* decisions.¹⁰ Additionally, today's utilities compete for capital in a global market rather
14 than a local market. Nonetheless, the parameters defined in those cases are readily met using
15 current methods and theory. The principle of commensurate return is based on the concept of
16 risk. Financial theory holds that the return an investor may expect is reflective of the degree
17 of risk inherent in the investment, risk being a measure of the likelihood an investment will
18 not perform as expected. Any line of business carries with it its own risks and it follows,
19 therefore, that the return Ameren Missouri shareholders may expect is equal to that required
20 for comparable-risk utility companies.

21 The COE is a market-constructed artifact; meanwhile, Commission-authorized ROEs
22 are regulatory-constructed artifacts. The COE, theoretically, is the minimum return investors
23 are willing to accept for their investment in a company compared to returns on other available
24 investments. An authorized ROE is an adjudicated return granted to monopoly industries
25 extending them the opportunity to earn fair and reasonable compensation for their
26 investments. Staff intentionally differentiates between the market-determined COE and the
27 allowed ROE because financial officers and stock investment analysts use market-determined

¹⁰ Neither the Discounted Cash Flow ("DCF") nor the Capital Asset Pricing Model ("CAPM") methods were in use when those decisions were issued.

1 COEs, which are much lower than average allowed ROEs, when making capital allocation
2 decisions and valuing utility stocks.

3 Staff relied on analysis of a comparable group of companies to estimate the COE for
4 Ameren Missouri, applying a DCF model, a Multi-stage DCF model, and a CAPM to the
5 comparable group of companies. Properly used and applied in appropriate circumstances,
6 these models provide accurate estimates of utilities' COE. It is well-accepted economic
7 theory that a company that earns its cost of capital will be able to maintain its financial
8 integrity. Commission authorized ROEs focus on industry authorized ROEs to facilitate
9 capital attraction. As such, Staff's recommended allowed ROE for Ameren Missouri is higher
10 than its estimate of the market-driven COE.

11 **C. Current Economic and Capital Market Conditions**

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

17 **1. Economic Conditions**

18 Economic dynamics are important in setting an allowed ROE because they help assess
19 the trajectory of FED Funds Rates and the path of longer-term interest rates. Interest rates
20 determine utilities' debt costs, an input in their overall cost of capital. The interplay of
21 interest rates and their expected effects on capital markets further assists in evaluating how
22 utility stocks behave relative to other assets. Utility stock prices relative to other assets affect
23 their COE, another component in the cost of capital. Understanding these mechanics in an
24 evolving economy helps guide a decision as to what a proper ROE should be going forward.

25 Real GDP growth in 2017 and 2018 increased by 2.2% and 2.9%, respectively. The
26 Federal Reserve ("FED") projects real GDP growth in 2019 of 2.0%. Long-run projections
27 for real GDP range from 1.7% - 2.2%. Inflation, measured by Personal Consumption
28 Expenditures ("PCE") for 2017 and 2018 averaged 1.6% and 1.9%, respectively. Long-term,
29 inflation should be expected to be near the FED's 2% target. The Federal Open Market
30 Committee ("FOMC") has initiated nine 25-basis point rate increases since December 2015,

1 when it began increasing the FED target Funds Rate (“Funds Rate”). FOMC projections
2 show that the FED will likely leave the Funds Rate between 2.25% - 2.50% for the
3 remainder of 2019.

4 An important consideration in assessing the relationship between short-term and
5 long-term Treasury rates is the amount of U.S. Treasuries held by the FED. According to the
6 March 28, 2019, Federal Reserve statistical release, H.4.1, the FED held approximately
7 \$2.175 trillion in U.S. Treasury notes and bonds, composing approximately 54% of
8 FED assets. On March 20, 2019, during the FOMC press conference, FED Chairman,
9 Jerome Powell, stated that the size of the balance sheet will approximate 17% of GDP and the
10 asset allocation will consist primarily of Treasury securities. The second estimate for
11 fourth quarter 2018 GDP estimated GDP at \$20.89 trillion. That places the FED’s holdings of
12 Treasury securities at approximately 10.5% of GDP. To accomplish its stated objective for
13 size and asset allocation of a normalized balance sheet, the FED will need to hold
14 significantly more Treasury securities. To accomplish its objective, the FED stated it will
15 begin to slow its balance sheet unwinding in May 2019, and conclude unwinding Treasury
16 securities in September 2019. To focus on an asset allocation consisting primarily of
17 Treasury securities, the FED stated that in October 2019, it will begin reinvesting up to
18 \$20 billion per month of the proceeds received from agency debt and mortgage backed
19 securities into Treasury securities “across a range of maturities to roughly match the maturity
20 composition of Treasury securities outstanding.”¹¹ This will have the effect of increasing
21 demand for Treasuries, keeping downward pressure on yields.

22 Another important factor to consider in the paradigm of long-term and short-term
23 interest rate relationships is foreign central bank (“CB”) policies. Research by economists at
24 the Federal Reserve Bank of Chicago finds that “10-year interest rates display a positive and
25 significant response to foreign CBs announcements.”¹² Low interest rates offered by other
26 governments, while the U.S. has some of the highest yields in the developed world, increases

¹¹ Federal Reserve Board of Governors, *Balance Sheet Normalization Principles and Plans*, March 20, 2019.

¹² Anene, D., D’Amico, S., *A tale of Four Tails: Inflation, the Policy Rate, Longer-Term Rates, and Stock Prices*. Federal Reserve Bank of Chicago, December 2017.

1 foreign demand for U.S. Treasuries. Low yields in other developed markets stem from low
2 policy rates and large balance sheets at other central banks.

3 The March 15, 2019, Statement on Monetary Policy at the Bank of Japan (“BOJ”)
4 shows that the BOJ intends to continue to keep interest rates low. With regard to short-term
5 policy interest rates, the BOJ “will apply a negative interest rate of minus 0.1 percent to the
6 Policy-Rate Balances in current accounts held by financial institutions at the bank.”¹³ With
7 regard to longer term interest rates, the BOJ “will purchase Japanese government bonds
8 (JGBs) so that 10-year JGB yields will remain at around zero percent.”¹⁴

9 In a similar note, a March 7, 2019, European Central Bank (“ECB”) Monetary policy
10 decisions press release shows that the “interest rate on the main refinancing operations and the
11 interest rates on the marginal lending facility and the deposit facility will remain unchanged at
12 0.00%, 0.25% and -0.40% respectively at least through the end of 2019, and in any case for as
13 long as necessary.”¹⁵ Also, the ECB “intends to continue reinvesting, in full, the principle
14 payments from maturing securities purchased under the asset purchase program for an
15 extended period of time.”¹⁶ Lacking indications of higher interest rates abroad, continued
16 downward pressure on U.S. interest rates will persist.

17 The relationship between trend GDP growth and estimates of the natural interest rate
18 demarcates approximately when the Funds Rate shifts from accommodative to restrictive,
19 with respect to economic output.¹⁷ Economists at the San Francisco FED estimate a natural
20 interest rate equal to the trend growth rate of output, at the time 2.2%.¹⁸ Given the FOMC’s

¹³ Bank of Japan, *Statement on Monetary Policy*, March 15, 2019, https://www.boj.or.jp/en/announcements/release_2019/k190315a.pdf

¹⁴ *Ibid.*

¹⁵ European Central Bank., *Monetary policy decisions*, March 7, 2019, <https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.mp190307~7d8a9d2665.en.html>

¹⁶ *Ibid.*

¹⁷ The natural interest rate is the real short-term interest rate that allows for GDP to grow at its trend rate, while allowing for stable inflation. Short-term rates below the natural rate are thought of as expansionary; meanwhile, short-term rates above the natural rate are thought of as contractionary.

¹⁸ Holston, K., Laubach, T., & Williams, C., (2016). *Measuring the Natural Rate of Interest: International Trends and Determinants*. Finance and Economics Discussion Series 2016-073. Washington: Board of Governors of the Federal Reserve System, <https://www.federalreserve.gov/econresdata/feds/2016/files/2016073pap.pdf>

1 Summary of Economic Projections, FOMC members currently believe the natural rate to be
2 between 2.5% – 3.5%.¹⁹ Estimates of the natural interest rate imply that the FOMC is near
3 the neutral rate.

4 Slowing economic growth in the U.S. and abroad signal the Funds Rate encountering
5 resistance. Similarly, accommodative support from the FED at the longer end of the yield
6 curve, accompanied by a low-yield global environment, indicates maintained downward
7 pressure on longer-term Treasuries, likely leading to sustained lower utility COE levels.

8 **2. Capital Market Conditions**

9 **a. Utility Debt Markets**

10 Schedule JS-4-4 shows the average yields for Moody’s public utility bonds and
11 30 year U.S. Treasury bonds, and Schedule JS-4-5 shows spreads and the long-run average
12 spread between yields on public utility bonds and 30-year U.S. Treasury bonds. Since the
13 end of the Great Recession, public utility bonds have had a 0.95 correlation with
14 30-year Treasuries and a 0.82 correlation with 10-year Treasuries.

15 Average public utility bond yields rose throughout most of 2018, but began declining
16 in late 2018 into 2019. The increase in public utility bond yield averages in 2018 is explained
17 by their high correlation to 30-year Treasuries. For example, average utility bond yields
18 increased approximately 25 basis points from an average of 4.07% in 2017 to an average of
19 4.32% in 2018. Driving the increase, average 30-year Treasury bond yields increased
20 approximately 21 basis points from an average of 2.90% in 2017 to an average of 3.11% in
21 2018. Average spreads between utility bond yields and 30-year Treasuries rose 6 basis points,
22 from 1.17% in 2017 to 1.23% in 2018. As can be seen on Schedule JS-4-5, spreads between
23 utility bonds and 30-year Treasury bonds were below their long run average in 2017, began
24 rising in 2018, and have been near their long run average the first few months of 2019.

25 S&P rates Ameren’s (“AEE”) and all its subsidiaries’ senior unsecured debt ‘BBB+’.
26 Similarly, Moody’s rates both AEE’s and Ameren Missouri’s senior unsecured debt ‘Baa1’.
27 However, Ameren Missouri’s secured debt is assigned an “A” rating by S&P and an

¹⁹ Federal Open Market Committee. *Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents under their individual assessments of projected appropriate monetary policy, March 2019*. March 20, 2019.

1 equivalent "A2" rating by Moody's. Schedule JS-4-7 shows the average yields on 'A'-rated
2 utility bonds compared to 30-year U.S. Treasury bonds. Average 'A'-rated utility bond yields
3 for 2017 and 2018 were 4.00% and 4.25%, respectively. Average spreads between 'A'-rated
4 utility bonds and 30-year Treasuries for 2017 and 2018 were 1.10% and 1.14%, respectively.
5 The historical average spread between 'A'-rated utility bonds and 30-year U.S. Treasuries is
6 1.28%. As can be seen on Schedule JS-4-8, spreads between 'A' -rated utility bonds and
7 30-year U.S. Treasury bonds were below their long run average in 2017, began rising in 2018,
8 and have been near their long run historic average the first few months of 2019.

9 To the extent Missouri's utilities or their parent companies have outstanding bonds
10 traded in the secondary markets, it is relevant to analyze this company-specific data to
11 determine a reasonable estimate of the cost of capital, and a reasonable allowed ROE.
12 Although this company-specific debt yield information is helpful because it informs the
13 Commission as to the yield investors are currently requiring on Missouri utilities' and/or their
14 parent companies' debt capital, Staff notes that some of the bonds are thinly traded, if they are
15 traded at all. Additionally, the terms of some of these bonds may differ, such as the time to
16 maturity, secured/unsecured, callable or not, date it is callable, etc. Staff specifically analyzed
17 bonds that had maturities of approximately 20 years or greater and those that had at least four
18 trades during April, May, and June 2017 (the general period evaluated by Staff in the Spire
19 Missouri rate cases) and four trades for the three months through March 31, 2019 (the period
20 analyzed in the current case).

21 Ameren Missouri had two bonds with a maturity of 20 years or more that met Staff's
22 trading criteria.²⁰ These bonds mature in 2042 and 2045, have 'A' ratings from S&P, an 'A2'
23 ratings from Moody's, are callable, and are secured. During the three months ended
24 June 30, 2017, the bonds traded at an average yield-to-maturity of 3.75% and 3.76%,
25 respectively. During the three months through March 31, 2019, the bonds traded at an
26 average yield-to-maturity of 3.91% and 3.98%, respectively. Data related to Ameren
27 Missouri's bond yields reflect a pattern similar to those occurring between public utility
28 bonds and Treasury bonds.

²⁰ Symbol AEE3899397, CUSIP 906548CJ9 and Symbol AEE4229257, CUSIP 906548CL4.

1 Unfortunately, no Spire Missouri outstanding bonds met the liquidity criteria
2 necessary for comparative purposes. However, assessing Spire Missouri's credit ratings and
3 reports gives insight to risk profiles between the utilities. Substantially all of Spire Missouri's
4 debt is secured debt. S&P rates both Spire Missouri's and Ameren Missouri's secured
5 debt 'A'. Moody's rates Spire Missouri's secured debt 'A1', one notch above its rating for
6 Ameren Missouri's secured debt, 'A2'.

7 Broader market data shows long-term borrowing costs increased throughout most of
8 2018 before plateauing and retreating late in the year. Data on Ameren Missouri's bonds
9 shows that Ameren's borrowing costs displayed similar behavior. Comparing Ameren
10 Missouri's credit ratings to Spire's suggests that the two companies share similar risk, at least
11 according to S&P. However, Staff notes that generally gas utilities have different risk profiles
12 than electric utilities, allowing them to support more debt. For example, S&P generally uses
13 medial volatility benchmarks when assessing electric utilities credit metrics, such as AEE's;
14 meanwhile, it uses low volatility benchmarks when assessing gas utilities credit metrics, such
15 as Spire's. If Ameren Missouri were an all gas company and its ratings were based on the low
16 volatility tables, its financial risk profile would move from "Intermediate" to "Modest," likely
17 improving its credit rating.

18 Looking forward, economic data point to sustained low long-term interest rates.
19 Considering a slowing economy, pressure on the Funds Rate and longer-term interest rates,
20 and the passing of credit risks from tax reform, 9.50% is a fair and reasonable allowed ROE.
21 For further evidence of such, recall that the average ROE awarded for fully litigated gas rate
22 cases in 2018 was 9.57%.²¹

23 **b. Utility Equity Markets**

24 Sustained low interest rates have allowed utility stocks to outperform the S&P 500
25 over the last three years. Staff's proxy group outperformed the S&P 500 in 2016, with a total
26 return of 26.60% compared to 13.67%, respectively. Staff's proxy group lagged the S&P 500
27 in total returns in 2017, with a total return of 15.11% compared to 21.83%, respectively.
28 Staff's proxy group again outperformed the S&P 500 in 2018, with total returns of 7.82%

²¹ Market Intelligence

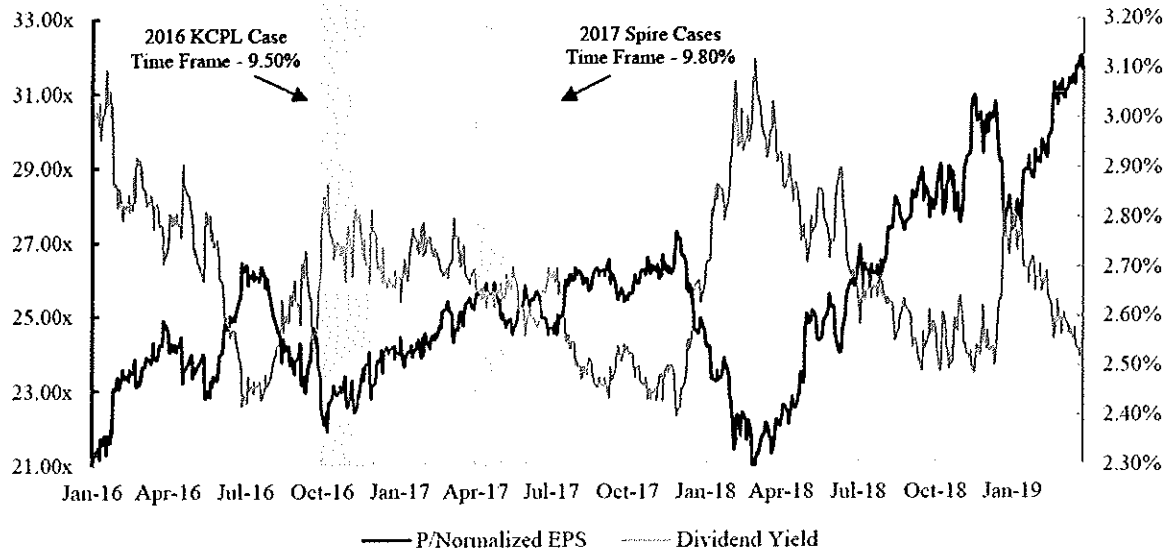
1 compared to -5.18%, respectively. Total returns for Staff's proxy group compared to the
2 S&P 500, from January 2016 to December 2018 were 55.33% compared to 32.42%,
3 respectively. Comparing total returns of Staff's proxy group to total returns of the S&P 500
4 shows that utility stock returns, at least those in Staff's proxy group, have been more than
5 sufficient to compensate investors, particularly when taking into account that utility stocks
6 have been able to generate higher total returns at lower risk.

7 The utility industry's outperformance of the S&P 500 is largely because of high
8 valuation levels of utility stocks due to low long-term interest rates, i.e., a low cost of capital.
9 Staff has already elaborated on the interest rate environment. Staff will focus on comparing
10 and contrasting dividend yields and Price to Earnings ("P/E") ratios of the gas proxy group for
11 the period since the spring of 2017 to describe how general costs of capital have changed, and
12 assess an appropriate ROE for Ameren Missouri.

13 As Staff has explained in recent utility rate case testimonies, the biggest cause for
14 high utility stock P/E ratios has been low long-term interest rates, which resulted in low utility
15 dividend yields. For the three-months ended June, 2017, the average dividend yield and
16 average P/Normalized EPS ratio for Staff's gas utility proxy group were 2.64% and 25.56x,
17 respectively. For the three-month period ending March 31, 2019, average dividend yield
18 and average P/Normalized EPS ratio were 2.65% and 29.90x, respectively. The chart below
19 shows average dividend yields and average P/Normalized EPS from January, 2016, to
20 March, 2019.

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30 continued on next page

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Source: S&P Capital IQ

3

Debt markets show that debt costs have come down in 2019 compared to 2018.

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Looking forward, markets are pointing to stable debt costs. Equity markets show that equity

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costs are lower than they were at the start of Spire Missouri's rate cases. Economic and

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capital market conditions support the notion that utilities' costs of capital will be lower

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for longer.

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D. Ameren Missouri Operations

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The following excerpts from AEE's Form 10-K filing with the United States

10

Securities and Exchange Commission ("SEC") for the 2018 calendar year provides a good

11

description of AEE's current organizational structure and Ameren Missouri's current

12

business operations:

13

Ameren, formed in 1997 and headquartered in St. Louis, Missouri, is a public utility holding company whose primary assets are its equity interests in its subsidiaries. Ameren's subsidiaries are separate, independent legal entities with separate businesses, assets, and liabilities. Dividends on Ameren's common stock and the payment of expenses by Ameren depend on distributions made to it by its subsidiaries... Ameren has four segments: Ameren Missouri, Ameren Illinois Electric Distribution, Ameren Illinois Natural Gas, and Ameren Transmission. The Ameren Missouri segment includes all of the

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1 operations of Ameren Missouri. Ameren Illinois Electric Distribution
2 consists of the electric distribution business of Ameren Illinois.
3 Ameren Illinois Natural Gas consists of the natural gas business of
4 Ameren Illinois. Ameren Transmission primarily consists of the
5 aggregated electric transmission businesses of Ameren Illinois and
6 ATXI... Ameren Missouri operates a rate-regulated electric
7 generation, transmission, and distribution business and a rate-regulated
8 natural gas distribution business in Missouri. Ameren Illinois operates
9 rate-regulated electric transmission, electric distribution, and natural
10 gas distribution businesses in Illinois. ATXI operates a FERC rate-
11 regulated electric transmission business.²²

12 E. Rate of Return

13 In order to arrive at Staff's recommended ROR, Staff examined (1) an appropriate
14 ratemaking capital structure, (2) the Ameren Missouri's embedded cost of debt, and
15 (3) an evaluation of a fair and reasonable allowed ROE.

16 1. Capital Structure

17 In past Ameren Missouri gas cases, Staff recommended the Commission use Ameren
18 Missouri's operating capital structure for its ratemaking capital structure because it was
19 consistent with how AEE holding company was capitalized; consequently, the use of either
20 capital structure would have produced similar revenue requirements. However, recent use of
21 AEE holding company debt, which has caused AEE to be more leveraged, has caused Staff to
22 change its position. Schedule JS-6-2 shows the diverging trend between the equity ratios at
23 AEE holding company compared to those of Ameren Missouri from 2014 – 2018. Staff's
24 concern leads to Staff's recommended 50% ceiling on Ameren Missouri's common equity
25 ratio. Staff's assessment of a reasonable equity ratio resembles an agreement Ameren Illinois
26 has with the Illinois Commerce Commission, to limit the amount of equity to 50% in ROR
27 calculations for its gas and electric operations.²³ Schedule JS-6-3 shows Staff's gas utility
28 proxy group historical capital structures for the last five years.

²² Staff notes that Ameren Missouri does not separate Ameren Missouri gas as a separate segment like Ameren Illinois does with its gas and electric operations. This is likely due to the small size of Ameren Missouri gas.

²³ Illinois Commerce Commission Dockets 18-0463 and 18-0807.

1 **2. Cost of Debt**

2 **

4 **

5 **3. Cost of Common Equity**

6 Staff estimated Ameren Missouri's cost of common equity through a comparable
7 company cost-of-equity analysis using a proxy group of gas utility companies. Additionally,
8 Staff used a CAPM analysis and a survey of other indicators as a check of the reasonableness
9 of COE findings.

10 **a. The Proxy Group**

11 Staff used a proxy group consisting of companies that are predominately regulated gas
12 utilities to estimate changes in the cost of equity since the Spire Missouri rate cases. Staff
13 ensured companies in the proxy group are confined to regulated gas utility operations by
14 starting with Market Intelligence's screening of U.S. natural gas utilities, and then screened
15 these companies further by ensuring that they

- 16 • are publicly traded
- 17 • have investment grade credit ratings from two major U.S. credit
- 18 rating agencies
- 19 • have no pending merger or acquisitions
- 20 • have at least 80% of assets regulated
- 21 • generate at least 80% of income from regulated utility operations
- 22 • have long-term growth coverage from at least 2 analysts
- 23 • have not reduced dividends since 2016

24 **b. The Constant-growth DCF**

25 Staff started its evaluation of the gas utility industry's cost of common equity by
26 applying values derived from the proxy group to the constant-growth DCF model.
27 The constant-growth DCF model is widely used by investors to evaluate stable-growth
28 investment opportunities, such as regulated utility companies. It may be expressed
29 algebraically as follows:

$$k = D_1/P_0 + g$$

Where: k is the cost of equity;

D_1 is the expected next 12 months
dividend;

P_0 is the current price of the stock; and

g is the dividend growth rate.

The term D_1/P_0 , the expected next 12-months' dividend divided by current share price, is the dividend yield. Staff calculated the dividend yield for each of the comparable companies by dividing the calendar year projected dividends per share from Market Intelligence by the monthly high/low average stock price for the three months ending March 31, 2019.²⁴ The projected average dividend yield for the gas utility proxy group is approximately 2.67%.

i. The Inputs

In the DCF method, the cost of equity is the sum of the dividend yield and a growth rate ("g") that represents the projected capital appreciation of the stock. In estimating a growth rate, Staff considered the actual dividends per share ("DPS"), earnings per share ("EPS"), and book value per share ("BVPS") for each of the comparable companies. Staff also reviewed equity analysts' consensus estimates for long-term compound annual growth rates in EPS as reported by Market Intelligence. The average consensus long-term growth rates in EPS for the proxy group was 5.06% as of March 31, 2019 (*see* Schedule JS-8-3).

While Staff may accept the argument that gas utilities' EPS can grow over the next five years at a growth rate of approximately 5.06%, a rate which is higher than consensus nominal GDP long-term growth rate²⁵ estimates, Staff notes that it would be unreasonable to conclude that this growth rate is sustainable in perpetuity because it does not give consideration to empirical and logical information that suggests that utility companies should grow at a rate less than that of the overall economy. A projected long-term nominal GDP

²⁴ The monthly high/low averaging technique minimizes the effects of short-term stock market volatility on the calculation of dividend yield. P_0 is calculated by averaging the highest and the lowest price for each month during the selected period.

²⁵ The nominal GDP growth rate, contrasted to the real GDP growth rate introduced earlier, is not adjusted for inflation.

1 growth rate should be conservatively ascribed as an upper constraint when testing the
2 reasonableness of growth rates used to estimate the cost of equity for a regulated gas utility.
3 Staff will provide more detail on economic growth projections when discussing the multi-
4 stage DCF, but a high-end estimate for nominal GDP is no higher than 4.0%, causing an
5 estimated constant growth rate over this rate to be suspect.

6 The growth rate used in the DCF is supposed to represent the expected capital gains
7 (growth in the stock price) of the utility. Results of the DCF place the gas utility proxy
8 group's dividend yield at 2.67%. Making the assumption that capital gains equals the
9 dividend yield implies gas utility investors are requiring a return of 5.34% for gas utility
10 stocks. Although Staff considers it unlikely that the fundamental characteristics of gas utility
11 stocks will cause returns from capital gains to be much higher than dividend returns, because
12 historical dividend growth has been approximately 4.4% over the previous 10 years and
13 expected dividend growth over the next five years is expected to be higher, Staff used a
14 constant growth rate of 4% to 5% to arrive at a cost of equity estimate of 6.67% to 7.67%.
15 Compared to the DCF analysis Staff presented in the Spire Missouri rate cases, it appears the
16 COE has come down (*see* Schedules JS-9-1 & JS-9-2).

17 **c. The Multi-stage DCF**

18 **i. Overview**

19 Staff compared its COE analysis of the gas utility proxy group using data from the
20 time frame coinciding with Spire Missouri's 2017 gas rate cases to its COE analysis of the
21 same proxy group using more recent data. A multi-stage DCF may use either two or more
22 growth stages, depending on the situation being modeled. In any case, the last stage must use
23 a sustainable rate as it is considered to last into perpetuity. The ability of a multi-stage DCF
24 analysis to reliably estimate the cost of common equity is primarily driven by the analyst
25 using a reasonable growth rate for the final stage because this rate is assumed to last into
26 perpetuity. Where three stages are used, the second stage is generally a transitional phase
27 between the high growth first stage and the constant growth final stage.²⁶

²⁶ John D. Stowe, Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey, *Analysis of Equity Investments: Valuation*, Association for Investment Management and Research, 2002, p. 71-72.

1 Staff used a three-stage DCF approach, the stages being years 1-5, years 6-10, and
2 years 11 to infinity.²⁷ For stage one, Staff gave full weight to analysts'
3 five-year EPS growth estimates. For stage two, Staff linearly reduced the growth rate from
4 the stage one level to the constant-growth third stage level. Since the Commission has shown
5 a preference to GDP in past rate cases, Staff used steady state economic growth rate
6 projections in the third stage. Based on average current long-term sustainable real GDP
7 projections of 1.91%, compounded by the expected long-term GDP price deflator of 2.0%
8 $((1.0191 * 1.02) - 1) = .0395$), the midpoint estimate of GDP growth is approximately
9 25 basis points lower than during Spire's rate cases.

10 Staff's sources for the range of growth rates include the Congressional Budget Office
11 ("CBO"), the Federal Reserve, the Organization for Economic Cooperation and Development
12 ("OECD"), and the U.S. Energy Information Administration ("EIA"). The CBO projects an
13 annual compound growth rate in real GDP of approximately 1.89% through 2029;²⁸ the
14 Federal Reserve projects real GDP growth in the range of 1.7% - 2.2% in the longer run;²⁹
15 OECD projections estimate real GDP growth of approximately 1.87% through 2060;³⁰ and
16 EIA projections estimate real GDP growth of approximately 1.89% through 2050.³¹

17 Based on perpetual growth rate ranges of 3.8% to 4.2%, the value of Staff's cost of
18 equity estimate for the gas utility industry is in the range of 6.70% to 7.04%, respectively.
19 Comparing this result to that of a Multi-stage DCF using data from the Spire Missouri rate
20 cases timeframe shows that COE has come down (*see* Schedules JS-10-1 to JS-10-6).

21 ii. Stage one

22 The first stage of a multi-stage DCF is usually quite specific due to the ability to
23 forecast cash flows in the near-term with more accuracy. In fact, it is often the case that the
24 first stage of a multi-stage DCF will be based on discrete cash flows projected on an annual

²⁷ In practice, Staff extended the third stage only to year 200.

²⁸ www.cbo.gov/publication/54918

²⁹ <https://www.federalreserve.gov/monetarypolicy/files/fomcprojtab120190320.pdf>

³⁰ <https://data.oecd.org/gdp/real-gdp-long-term-forecast.htm#indicator-chart>

³¹ <https://www.eia.gov/analysis/projection-data.php>

1 basis for the next several years. However, in the context of discounting expected future DPS,
2 it is often the case that a compound growth rate is applied to the current DPS to estimate the
3 expected DPS over the next several years. Although it is rare for a company to tie its targeted
4 DPS growth rate directly to a 5-year EPS projected compound growth rate, because equity
5 analysts' 5-year EPS forecasts are widely available and may provide some insight on expected
6 DPS, Staff used these growth rates for the first 5-years of its multi-stage DCF.

7 **iii. Stage two**

8 Stage two, i.e., the transition stage, is simply a gradual movement from above normal
9 growth to more normal/sustainable growth for the final stage. Although stage two can also
10 consist of forecasted discrete cash flows, because it is a transitional period, it is logical to
11 linearly reduce the high growth first-stage growth over a specific period in order to gradually
12 reduce the growth rate to the expected sustainable growth rate. Staff chose to do this over a
13 5-year period, which is fairly conventional in multi-stage DCF analysis.

14 **iv. Stage three**

15 Stage three is the final/constant-growth stage. In fact, the final stage can be reduced to
16 the single-stage, constant-growth form of the DCF. Although this is the "generic" stage, it is
17 extremely important to select a reasonable growth rate for this stage to arrive at a reliable cost
18 of equity estimate.

19 **F. Tests of Reasonableness**

20 Staff has tested the reasonableness of its DCF results by use of a CAPM analysis and
21 consideration of other evidence.

22 **1. The CAPM**

23 The CAPM is built on the premise that the variance in returns is the appropriate
24 measure of risk, but only the non-diversifiable variance (systematic risk) is rewarded.
25 Systematic risks, also called market risks, are unanticipated events that affect almost all assets
26 to some degree because the effects are economy wide. Systematic risk in an asset, relative to
27 the average, is measured by the Beta of that asset. Unsystematic risks, also called asset-
28 specific risks, are unanticipated events that affect single assets or small groups of assets.
29 Because unsystematic risks can be freely eliminated by diversification, the reward for bearing

1 risk depends on the level of systematic risk. The CAPM shows that the expected return for a
2 particular asset depends on the pure time value of money (measured by the risk free rate), the
3 reward for bearing systematic risk (measured by the market risk premium), and the amount of
4 systematic risk incurred by the asset (measured by Beta). The general form of the CAPM is
5 as follows:

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

7 Where: k is the expected return on equity for a security;

8 R_f is the risk-free rate;

9 β is Beta; and

10 $R_m - R_f$ is the market risk premium.

11 For the risk-free rate (R_f), Staff used the average yield on 30-year U.S. Treasury bonds for the
12 three-month period ending March 31, 2019; that figure was 3.01%. For beta (β), Staff relied
13 on Market Intelligence betas; the average beta for the proxy group was 0.61. For the market
14 risk premium ($R_m - R_f$) estimates, Staff relied on the historical difference between earned
15 total returns on stocks and earned total returns on bonds through the end of 2018.³² The first
16 risk premium was based on the long-term arithmetic average of historical return differences
17 from 1926 - 2018 (6.00 %). The second risk premium was based on the long-term geometric
18 average of historical return differences from 1926 - 2018 (4.50%). The results using the long-
19 term geometric average risk premium and the long-term arithmetic average risk premium are
20 5.76% and 6.68%, respectively. Comparing Staff's results to the results of the CAPM Staff
21 presented in the Spire Missouri rate cases shows that the COE has come down (*see* Schedules
22 JS-11-1 & JS-11-2).

23 2. Average Authorized Returns

24 Staff recognizes the Commission has expressed interest in authorized ROEs and
25 capital structure decisions for other vertically integrated electric and gas utility companies
26 throughout the country. The chart below presents results of fully litigated rate cases of

³² From Duff & Phelps 2019 *SBBI Yearbook: Stocks, Bonds, Bills, and Inflation*.

1 vertically integrated electric and gas companies, compiled and published by RRA, describing
2 the average allowed ROEs from Commissions around the country along with the percentage
3 of common equity to total capital in rate cases from 2014 – 2018.
4

Utility Year	Gas		Electric	
	ROE%	% Equity	ROE%	% Equity
2014	9.98	52.86	10.03	51.39
2015	9.58	51.17	9.74	49.03
2016	9.61	52.11	9.62	49.47
2017	9.82	50.39	9.69	47.89
2018	9.57	50.64	9.66	46.02

Source: Regulated Research Associates, an offering of S&P Global Market Intelligence

5
6 **G. Conclusion**

7 In light of recent Commission decisions, it is Staff’s opinion that an allowed ROE in
8 the range of 9.00% to 10.00% is fair and reasonable for Ameren Missouri. Considering
9 information Staff has reviewed, Staff recommends the Commission authorize a ROE of
10 9.50%. A ROE range of 9.00% – 10.00% leads to a ROR range of 6.96% to 7.46%,
11 respectively (see Schedule JS-12). Using the point recommended allowed ROE of
12 9.50% results in an allowed ROR of 7.21%. Ameren Missouri’s ROR was calculated by
13 applying an embedded ** _____

14 _____ ** and an allowed return on common equity of 9.50% to a capital structure
15 consisting of 48.99% long-term debt, 1.01% preferred stock, and 50.00% common equity.

16 *Staff Expert/Witness: Jeffrey Smith*

17 **IV. Rate Base**

18 **A. Plant-in-Service**

19 The plant-in-service balances represent the direct assigned or allocated plant additions
20 and retirements of Ameren Missouri’s gas operations. Staff adjusted the test year plant
21 balances, by account, to reflect the estimated rate base value of Ameren Missouri’s gas
22 plant-in-service through the true up cut-off date of May 31, 2019 in its cost of service

1 calculation. The estimated plant-in-service balances will be replaced with actual amounts as
2 part of Staff's true up audit.

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

4 **B. Accumulated Depreciation Reserve**

5 The accumulated depreciation reserve balances also represent the direct assigned or
6 allocated amounts to Ameren Missouri's gas operations. Staff adjusted the test year balances,
7 by account, to reflect the estimated level of reserve through the true up cut-off date of
8 May 31, 2019. The estimated reserve balances will be replaced with actual values as part of
9 Staff's true-up audit.

10 *Expert/Witness: Paul Amenthor*

11 **C. Negative Accumulated Reserve**

12 Utility companies utilize mass asset accounting in regulation and due to this some
13 assets are retired before their useful life and others after. If assets are retired early or there is
14 mis-booking by the utility company, a negative reserve balance can occur. If these negative
15 reserve values are not moved or removed, the negative reserve will cause rate base to be
16 larger than it necessarily should be. Staff has therefore reallocated negative reserve balances
17 for the following accounts:

18 **1. Account 311 – Liquefied Petroleum Gas Equipment**

19 The remaining negative reserve for Account 311 was calculated to be ** _____ **.
20 This negative balance was absorbed into Account 305 (Production Structures and
21 Improvements) and Account 376 (Distribution Mains). Account 305 has ** _____
22 _____
23 _____ . ** For this
24 reason, Account 305 absorbed ** _____ ** of the negative balance associated with
25 Account 311.

26 Account 376 will absorb the remaining negative balance of ** _____ **. Account
27 376 has a large reserve balance and will be able to absorb the balance.

1 **2. Account 375 – Distribution Structures and Improvements**

2 The remaining negative reserve for Account 375 was calculated to be ** _____.**
3 This remaining negative balance has been reallocated to Account 376 due to Account 376's
4 large reserve balance.

5 **3. Account 387 – Distribution: Other Equipment**

6 The remaining negative reserve for Account 387 was calculated to be ** ____
7 _____ . ** This
8 remaining negative balance has been reallocated to Account 376 due to Account 376's large
9 reserve balance.³³

10 *Staff Expert/Witness: David Buttig, PE*

11 **D. Ameren Missouri Gas Operating Facilities**

12 **1. Operating Facilities**

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³³ Plant in service and depreciation reserve balances have been taken from the confidential workpapers of Ameren Missouri witness Laura M. Moore.

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2. Columbia, Missouri Gas Operations and Training Facility

** _____

_____ ** In response to Staff Data Request No. 0188.1 in this rate proceeding, Ameren Missouri indicated that ** _____

_____ ** Therefore, Staff has included an adjustment to remove this amount of plant in service in order to exclude this cost from its cost of service calculation.

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

21 **E. Cash Working Capital (CWC)**

22 Cash Working Capital (CWC) is the amount of funding necessary for a utility to pay
23 day-to-day expenses incurred in providing utility services to its customers. Cash inflows from
24 payments received by the utility and cash outflows for expenses incurred by the utility are
25 analyzed using a lead/lag study.

26 When a utility expends funds to pay expenses necessary for the provision of service
27 before receiving payment from its customers, the utility's shareholders are the source of the
28 funds. The funding from shareholders represents a portion of each shareholder's total
29 investment in the utility. To compensate shareholders for this funding, a positive amount for
30 CWC is included in rate base. Alternatively, customers supply funds to the utility when they

1 pay for utility service before the day-to-day expenses are incurred in providing that utility
2 service. Utility customers are compensated for the funds they provide by a reduction to the
3 utility's rate base.

4 The CWC requirement can be negative or positive. If the requirement is negative, it
5 indicates that the utility's customers are providing the CWC in the test year, which indicates
6 that customers paid for the utility's day to day expenses before the company incurred them.
7 In that circumstance, CWC would represent a reduction to rate base. A positive CWC
8 requirement indicates that the utility pays its expenses before receiving payment from its
9 customers, which means that shareholders are providing the funds for day-to-day operations,
10 which would result in a rate base addition.

11 In this case, Staff did not perform a full lead/lag study. However Ameren Missouri
12 did prepare a lead/lag study internally and Staff has reviewed both the revenue and expense
13 lead/lag factors calculated by Ameren Missouri witness Brenda I. Weber for accuracy and
14 reasonableness. While Staff has adopted many of the revenue lags and expense leads lag
15 associated with sales tax and the expense leads for pension expense, payroll, and
16 payroll taxes. These differences are discussed in more detail below:

17 **1. Revenue Lag**

18 **Sales Tax**

19 Sales tax is collected by Ameren Missouri and then remitted to the taxing authorities
20 and as such is a pass through tax. Similar to the gross receipts tax, Staff has historically not
21 included the service component when determining the revenue lag for sales tax purposes and
22 is recommending a revenue lag of 23.44 for sales taxes in this case.

23 **2. Expense Leads**

24 **Pensions and OPEBs**

25 During the test year, the 12-months ending June 30, 2018, Ameren made three
26 (2 quarterly, and 1 semi-annual) contributions to its pension fund on July 3, 2017;
27 September 1, 2017; and April 2, 2018. Ameren typically makes four quarterly pension
28 contributions in a given year. For setting rates in the current case Staff is recommending
29 using the pension lead from the previous Ameren Missouri electric rate cases (Case Nos.

1 ER-2014-0258 and ER-2016-0179) which calculated the lead factor using four quarterly
2 pension contributions which more closely aligns with the historical pension contributions
3 made by Ameren resulting in a lag of 45.44 for pension contributions.

4 **Payroll and Payroll Taxes**

5 In November 2018, Ameren changed the pay dates for the management employees of
6 all Ameren affiliates to the 13th and the 28th of each month as part of a transformation to its
7 internal systems, including a new payroll system in 2020. Prior to this change, management
8 employees were paid on the 15th and the last day of each month. Ameren Missouri's response
9 to Staff Data Request No. 0142 ** _____

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18 The ** _____ ** time associated with the pay date change reduces the expense
19 lead for payroll and payroll taxes, and increases the positive net lag associated with these
20 expenses which results in an increase to CWC and its associated rate base value. In
21 calculating the expense lead for payroll and payroll taxes, Staff has set the lead time ** _____
22 _____ ** so that
23 Ameren Missouri is not ** _____ **. **
24 Staff's changes result in a payroll expense lag of 11.40 days and a payroll tax expense lag of
25 10.62 days.

1 Staff's overall lead/lag study resulted in a negative CWC requirement for Ameren
2 Missouri. This means that the ratepayers are currently providing the working capital, in the
3 aggregate, to Ameren Missouri. Therefore, the ratepayers will be compensated for the
4 working capital through a reduction to rate base.

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

6 **F. Natural Gas Storage**

7 **

10 **

11 Natural gas inventory fluctuates over time, where typically gas volumes increase in the
12 summer and decrease during the winter. The stored natural gas represents an investment by
13 Ameren Missouri and, therefore, is included in rate base where the utility has an opportunity
14 to earn a return on that investment. A 13-month average of costs is used to account for the
15 fluctuation in the level of inventory over time; thus, Staff has included in rate base a 13-month
16 average of natural gas inventory quantities and corresponding prices using the month end
17 balances for the period of February 2018 to February 2019. Staff will re-examine the natural
18 gas storage inventory as part of its true-up audit.

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

20 **G. Prepayments; Materials and Supplies; Customer Advances & Deposits**

21 **1. Prepayments**

22 Prepayments are items for which amounts are expended in advance of the period to
23 which they apply and typically represent items such as insurance, rents, employee benefit
24 costs, and maintenance agreements. As Ameren Missouri is required to provide upfront
25 funding for these expenses, it is appropriate to include them in rate base. The items for which
26 Ameren Missouri has proposed rate base treatment include rents and energy efficiency
27 program costs. After discussions with Ameren Missouri personnel it was determined that
28 these rental costs were not applicable to gas operations and that the energy efficiency program

1 has ended; therefore both rents and the energy efficiency program costs were removed from
2 prepayments.

3 Prior to this rate case, Ameren Missouri included the regulatory commission
4 assessment fee as a prepayment because it was paid in one lump sum once the bill was
5 received. Ameren Missouri now pays its commission assessment on a quarterly basis and no
6 longer prepays this item, so that cost was not proposed by Ameren Missouri to be included in
7 prepayments in this rate case. Staff agrees with this exclusion. Staff has included in rate base
8 a level of prepayments that reflects the 13-month average ending February 2019.

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

10 **2. Materials and Supplies**

11 Materials and supplies are a variety of items kept in inventory for use in meeting the
12 day-to-day needs of the utility. Staff included a 13-month average of materials and supplies
13 inventory ending February 2019 in rate base. Staff will re-examine materials and supplies as
14 part of its true-up audit.

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

16 **3. Customer Deposits**

17 Customer deposits represent funds collected from customers as a security against
18 potential losses that may arise from customer's failure to pay the utility service they have
19 received. Until refunded, customer deposits represent a source of funds available to Ameren
20 Missouri and are included as an offset to rate base. Interest is paid to customers for the use of
21 their money. Staff included in rate base a 13-month average ending February 2019 for
22 customer deposits. Please refer to Section VI.D.3. of this Report regarding the income
23 statement and interest on customer deposits for an explanation of the calculation of interest on
24 customer deposits. Staff will re-examine customer deposits as part of its true-up audit.

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

26 **4. Customer Advances**

27 Customer advances are funds received from new customers to aid in the cost of
28 construction necessary to connect them to the system. Customer advances are not refundable

1 nor do they earn interest; as such, these funds represent interest free money for the company
2 and therefore are included as a reduction, or offset to rate base. During Staff's review period,
3 there was a noticeable increase in the level of customer advances from the typical level that
4 Ameren Missouri has maintained in the past for gas operations. After discussion with
5 Ameren Missouri personnel, Staff discovered that this ongoing increase in customer advances
6 was due to development and construction of a new \$100 million state-of-the art asphalt
7 roofing shingle manufacturing and distribution facility by CertainTeed Corporation in
8 Jonesburg, Mo. which is located in Ameren Missouri's service territory. In December 2018,
9 the balance of customer advances experienced a significant reduction. Ameren Missouri's
10 contract with CertainTeed expired in December 2018 and the remaining balance of advances
11 was transferred to contributions in aid of construction ("CIAC") as an offset to plant-in-
12 service. Staff has included the last known level of customer advances at February 2019 as an
13 offset to rate base. Staff will re-examine customer advances as part of its true-up audit.

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

15 **H. Pensions and Other Post Employment Benefit – Rate Base**

16 See the discussion in Section VI.C.3.– Pensions and Other Post-Employment Benefits
17 ("OPEBs").

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

19 **I. Accumulated Deferred Income Taxes (ADIT)**

20 Ameren Missouri's Accumulated Deferred Income Tax Reserve ("ADIT") represents,
21 in effect, a prepayment of income taxes by Ameren Missouri's customers to Ameren Missouri
22 prior to payment being made by Ameren Missouri to taxing authorities. As an example,
23 because Ameren Missouri is allowed to deduct depreciation expense on an accelerated basis
24 for income tax purposes, the depreciation expense deduction used for income taxes paid by
25 Ameren Missouri is considerably higher than depreciation expense used for ratemaking
26 purposes. This results in what is referred to as a "book-tax timing difference" and creates a
27 deferral of income taxes to the future. The net credit balance in the deferred tax reserve
28 represents a source of cost-free funds to Ameren Missouri. Therefore, Ameren Missouri's
29 rate base is reduced by the deferred tax reserve balance to avoid having customers pay a
30 return on funds that are provided cost-free to Ameren Missouri. Staff has included the

1 ADIT balance as of June 2018 in its direct cost of service. As part of its true-up audit, Staff
2 will re-examine the ADIT balances to make sure all items included in those balances are
3 consistent with the other components of the cost of service and that they reflect the current
4 balances at the true-up cut-off date, May 31, 2019. Based on this true-up examination, Staff
5 may make additional adjustments to the cost of service as necessary.

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

7 **V. Allocations**

8 A subsidiary of Ameren Corporation, Ameren Services Company (“Ameren
9 Services”), provides various management and administrative services to Ameren Missouri and
10 affiliate companies. As part of the audit process, Staff reviewed the methods used by Ameren
11 Services to assign and allocate costs to Ameren Missouri’s gas operations. Under Ameren
12 Services’ corporate cost allocation system, costs are categorized into four types: Direct, Direct
13 Allocated, Indirect Corporate, and Indirect Functional. The allocations of costs and methods
14 used to allocate costs from Ameren Services are outlined in Ameren Missouri’s cost
15 allocation manual (“CAM”). Ameren Missouri, Staff, and The Office of the Public Counsel
16 (“OPC”) have continued working to establish an agreed upon CAM that is compliant with
17 the affiliate transactions rules for both electric and gas operations as a part of Case No.
18 EO-2017-0176. This case is scheduled to conclude by the end of 2019. Ameren Services
19 evaluates and updates the allocation factors included in the Ameren Missouri CAM at the
20 beginning of each calendar year, unless there is a significant change in circumstances that
21 would require the allocation factors be updated immediately. Additionally, the Ameren
22 Services Service Request Manual requires that Ameren Services’ Internal Audit Department
23 perform an audit and report each year of Ameren Services’ Service Request System and
24 Service Request policies, operating procedures, and controls.

25 **A. 2019 Allocation Factors**

26 Ameren Services made no significant changes to the allocation factors for 2019 and
27 made no changes to include new or remove existing allocation factors.

1 Staff has proposed an adjustment to annualize the Ameren Services costs allocated to
2 Ameren Missouri during the 12 months ending June 30, 2018 using the updated Ameren
3 Services allocation factors for 2019.

4 **B. **** _____ ******

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23 Staff will continue to review data and data request responses to determine if further
24 adjustments need to be made through the true-up cutoff date regarding corporate allocations.

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

26 **C. Software Allocation**

27 Ameren Missouri utilizes various software packages in the course of its electric and
28 gas operations. These software packages are owned and used by the various subsidiaries of
29 Ameren. The subsidiary that owns the software asset rents the use of the software to the other

1 subsidiaries and records associated rental revenue. Conversely, if a subsidiary rents software
2 from a different Ameren entity, the subsidiary records rental expense. ** _____

3 _____
4 _____
5 _____
6 _____ ** Please refer to Appendix 3, Schedule JK-d3
7 which summarizes the software at issue.

8 In the past, general office software costs that were charged to the books of Ameren
9 Missouri were only recorded on Ameren Missouri electric records. Ameren Missouri witness
10 Laura M. Moore indicated in her direct testimony that Ameren Missouri had recently
11 discovered that there was no allocation of these plant assets to Ameren Missouri gas
12 operations during Ameren Missouri's prior electric rate cases. According to Ms. Moore's
13 testimony these software assets and the corresponding revenues that they generate, as well as
14 software expense owned by other affiliates but allocated to Ameren Missouri, have only been
15 recorded on the books of Ameren Missouri electric operations and therefore the portion of
16 these revenues, expenses and investment that should have been allocated to Ameren
17 Missouri's gas operations were included in the rates that were established by the Commission
18 in Case No. ER-2016-0179. In this case, Ms. Moore has proposed to include an allocation of
19 the software assets and related revenues and expenses in the revenue requirement for Ameren
20 Missouri gas operations. Ms. Moore then proposes to track the software amounts that are
21 already being recovered in electric rates beginning with the effective date of rates in this case
22 so Ameren Missouri can begin to return that portion of costs to electric customers in Ameren
23 Missouri's next planned electric rate case filing. The following chart summarizes the
24 amounts proposed for inclusion by witness Moore:

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The fundamental problem that arises from Ameren Missouri's proposal to include the software assets and the corresponding revenues that it generates in natural gas rates as part of this rate case (Case No. GR-2019-0077), is that it will create a double recovery of the same costs. Currently software investment costs (less any offsetting revenues) are already being fully recovered from electric customers in Ameren Missouri's electric rates as established in the previous rate case, ER-2016-0179. Staff cannot support a tracker that permits Ameren Missouri to double recover from its gas ratepayers for what it is already recovering from its electric ratepayers.

11

The majority of Ameren Missouri's gas customers are joint customers, meaning they receive both gas and electric service from Ameren Missouri and are billed for both utility services on one customer bill. Given the fact that all of these costs are already being recovered in current electric rates, it is Staff's position that it would be more appropriate to first correct the allocation issue in the ** _____ ** filing by removing the portion of costs that should be allocated to gas. ** _____

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Staff Expert/Witness: Jason Kunst, CPA

D. Allocation of Ameren Missouri Costs Between Electric and Gas Operations

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Staff Expert/Witness: Jason Kunst, CPA

VI. Income Statement

A. Missouri Jurisdictional Rate Revenue

1. Introduction

The following section describes the individual elements for how Staff calculated Ameren Missouri adjusted gas operating revenues. The largest component of operating revenue results from rates charged to Ameren Missouri’s retail customers, so a comparison of operating revenue with cost of service is a test to determine the adequacy of the currently effective Missouri jurisdictional gas rates. One of the major tasks in a rate case is not only to determine whether a deficiency (or excess) between cost of service and operating revenues exists, but also to determine the magnitude of any such deficiency (or excess). Any deficiency

1 (or excess) identified can only be made up by adjusting Missouri retail rates prospectively, on
2 a going forward basis.

3 In order to determine the magnitude of a deficiency in Ameren Missouri's gas rates,
4 the test year revenue needs to be normalized and annualized so as to measure the amount of
5 deficiency in the current level of operating revenue. If the overall normalized and annualized
6 cost of providing service to Missouri retail customers exceeds those operating revenues, an
7 increase in the current rates Ameren Missouri charges its gas retail customers is required.

8 **a. Character of Ameren Missouri Retail Sales**

9 Ameren Missouri gas operations serve a combination of urban and rural areas
10 primarily through residential and general service rates whose load varies due to weather
11 (i.e. heating degree days). However, Ameren Missouri also serves interruptible,
12 transportation and special contract customers.

13 **b. Development of Revenue for this Case**

14 To determine the proper revenue to include in the cost of service, Staff applied
15 common ratemaking adjustments to normalize the gas usage and customer levels. This
16 establishes ongoing revenue at a level that Ameren Missouri gas would collect under normal
17 weather conditions, gas usage, and customer levels. Staff adjusts test year billing
18 determinants to determine the level of revenue that Ameren Missouri gas would have received
19 annually based upon "known and measurable" circumstances at the end of the test year for the
20 12 months ended June 30, 2018, with customer growth updated for known and measureable
21 changes through December 31, 2018. Staff will also review the impact of customer growth
22 through the true-up date, May 31, 2019.

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

24 **2. Regulatory Adjustments to Test Year Sales and Rate Revenue**

25 **a. Remove Unbilled Revenue**

26 Ameren Missouri records unbilled revenue to recognize the sales of gas that have
27 occurred, but have not yet been billed to customers. This unbilled revenue must be removed
28 in order to accurately calculate annualized revenue to include in the cost of service. Staff has
29 removed the unbilled revenue from the test year twelve months ending June 30, 2018.

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

1 **b. Infrastructure System Replacement Surcharge (“ISRS”)**
2 **Revenue**

3 ISRS investment and related costs are typically included in the cost of service
4 calculation during a rate case to determine permanent rates, with the ISRS surcharge being
5 reset to zero. As a part of that process, ISRS revenue is removed from the test year for
6 purposes of general rate proceedings.

7 Ameren Missouri collected ISRS revenue through a Commission approved surcharge
8 that became effective in Case No. GO-2015-0274. As a result of that ISRS case,
9 Ameren Missouri was authorized to collect approximately \$1,318,513 in ISRS revenue.
10 On August 18, 2016, Union Electric Company d/b/a Ameren Missouri submitted a tariff sheet
11 revising its ISRS values as part of Case No. GO-2017-0061. Ameren proposed to reset those
12 values to “zero” and effectively terminate the ISRS. The Commission allowed the proposed
13 tariff sheet to become effective by operation of law on September 17, 2016. In response to
14 this, Staff requested the case remain open for the purpose of receiving and processing a
15 reconciliation regarding Ameren Missouri’s final over- or under-recovered ISRS amount.
16 Commission rule 4 CSR 240-3.265(17) requires a natural gas utility, on an annual basis, to
17 reconcile the differences between the revenues resulting from the ISRS and the appropriate
18 pretax revenue as determined by the Commission for that period, and to submit a
19 reconciliation and proposed ISRS rate schedule revisions to the Commission for approval to
20 recover or refund the difference, as appropriate. Staff reviewed the actual ISRS collections
21 from the previously unreconciled period and determined a small over-recovery. The
22 over-recovery was ordered to be refunded to customers through a one-time bill credit in lieu
23 of the traditional methodology of reflecting differences into future ISRS rates. This treatment
24 was due to Ameren Missouri’s discontinuance of its ISRS.

25 Due to this unique situation, it is not necessary for Staff to remove test year ISRS
26 revenue from the cost of service calculation.

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

28 **c. Remove Gross Receipts Taxes: GRT**

29 Ameren Missouri acts as a collector for taxes imposed on utility service revenues by
30 municipalities and other taxing bodies. The Gross Receipts Tax (“GRT”) is included on

1 customer's bills and collected by Ameren Missouri and remitted to the proper taxing
2 authorities. The GRT is recorded as both a revenue and expense item on Ameren Missouri's
3 books. Theoretically, the GRT revenue and expense should offset one another and therefore
4 have no impact on the company net income. However, many times there is a timing difference
5 between when taxes are collected and when those taxes are remitted to the appropriate taxing
6 authorities. As such, Staff has removed the test year gross receipts taxes from both revenue
7 and expense to eliminate its effect on net income.

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

9 **d. Remove Purchased Gas Adjustment (PGA) Revenue and**
10 **Removal of Gas Costs**

11 Ameren Missouri collects its gas costs from customers through the use of a Purchased
12 Gas Adjustment ("PGA") clause, which allows the cost of purchased gas to be passed through
13 to customers by a surcharge. The PGA is audited annually by the Commission Staff's
14 Procurement Analysis Department as part of Actual Cost Adjustment ("ACA") filings. Staff
15 has removed all purchased gas expense and purchased gas revenue from the test year
16 ending June 30, 2018.

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

18 **e. Provision for Rate Refunds**

19 Ameren Missouri records an accrual for any possible over or under collection that may
20 occur in the PGA/ACA rider mechanism since the time of the previous ACA filing. That over
21 or under collection will be addressed in the next ACA filing and not as a part of permanent
22 rate calculations; thus, Staff removed the provision for rate refunds recorded in the test year.

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

24 **f. Customer Growth**

25 Staff's annualization of revenue consists of an annualized base charge and an
26 annualized commodity charge. The base charge is the minimum monthly charge assessed to
27 customers for supplying gas service. Staff annualized the base charge revenue by multiplying
28 Staff's annualized customer count by the monthly base charge that is currently authorized in
29 Ameren Missouri's gas tariffs. The commodity charge is based on customer usage of gas.

1 Staff annualized commodity revenue by multiplying Staff's normalized customer count by
2 Staff's proposed weather normalized usage per customer.

3 Staff reviewed and analyzed the historical customer counts for the residential
4 and general service rate classes by pipeline for the period of January 2011 through
5 December 2018. For customer classes that demonstrated an upward or downward trend over
6 time, Staff adjusted the test year to reflect the change in revenue that would have occurred if
7 the number of customers taking service at the end of December 31, 2018 (the update period)
8 had existed throughout the test year. For purposes of customer annualization, Rolla district
9 was included in the analysis of the Panhandle Eastern customers. To calculate an annualized
10 level of commodity revenue, Staff either applied seasonality or utilized the actual number of
11 customers that existed during the 12 month update period ending December 31, 2018 and
12 multiplied those annualized customer counts to the weather normalized usage per customer.

13 Staff will review all customer levels through May 31, 2019 as part of its true-up audit
14 in this case.

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

16 **g. Revenue - Weather Normal Variables Used for Weather**
17 **Normalization**

18 Natural gas usage and revenue vary from year to year based on weather conditions.
19 The temperature pattern in the test year is the primary determinant for weather-sensitive
20 customers' gas usage and the company's revenue in the test year. Each year's weather is
21 unique, so rates for weather-sensitive customer classes must be based on test year usage and
22 revenue adjusted to a level commensurate with "normal" weather conditions, rather than
23 actual test year usages and revenue.

24 **Weather Variables** - Staff obtained weather data from the Midwest Regional Climate
25 Center (MRCC).³⁴ The Columbia Regional Airport ("COU") and the Cape Girardeau
26 Municipal Airport ("CGI") weather data were used for actual and normal weather variables.
27 The weather data sets consist of actual daily maximum temperature ("T_{max}") and daily

³⁴ <http://mrcc.isws.illinois.edu/CLIMATE/>

1 minimum temperature (“ T_{\min} ”) observations. Staff used these daily temperatures to develop a
2 set of normal mean daily temperature (“MDT”)³⁵ values.

3 Natural gas sales are predominantly influenced by “ambient air temperature,”³⁶ so
4 MDT and the derivative measure, heating degree days (“HDD”),³⁷ are the measures of
5 weather used in adjusting test year natural gas sales. HDDs were originally developed as a
6 weather measure that could be used to determine the relationship between temperature and
7 gas usage, and are based on the difference of MDT from a comfort level of 65°F. HDDs are
8 calculated as the difference between 65°F and when MDT is below 65°F, and are equal to
9 zero when MDT is above 65°F.

10 **Normal Weather** - According to the National Oceanic and Atmospheric
11 Administration (“NOAA”), a climate “normal” is defined as the arithmetic mean of a
12 climatological element computed over three consecutive decades.³⁸ In developing climate
13 normal temperatures, the NOAA focuses on the monthly maximum and minimum
14 temperature time series to produce the serially-complete monthly temperature (“SCMT”)
15 data series.³⁹

16 Staff utilized the SCMT published in July 2011 by the National Climatic Data Center
17 (“NCDC”) of the NOAA. For the purposes of normalizing the test year gas usage and
18 revenues, Staff used the adjusted T_{\max} and T_{\min} daily temperature series for the 30-year period
19 of January 1, 1987, through December 31, 2016, at COU and CGI. The series are consistent
20 with NOAA’s SCMT during the most recent NOAA 30-year normal period ending 2010.

21 There may be circumstances under which inconsistencies and biases in the 30-year
22 time series of daily temperature observations occur, (e.g. such as the relocation, replacement,

³⁵ By National Climatic Data Center convention, MDT is average of daily maximum temperature (T_{\max}) and daily minimum temperature (T_{\min}) e.g. $MDT = (T_{\max} + T_{\min}) / 2$

³⁶ Ambient air temperature is the outside temperature of the surrounding air without taking into account the humidity or wind in the air.

³⁷ Where $MDT < 65^{\circ}F$, $HDD = 65 - MDT$; otherwise, $HDD = 0$.

³⁸ Retrieved on October 17, 2013, <https://www.ncdc.noaa.gov/data-access/land-based-station-data/land-based-datasets/climate-normals>

³⁹ Retrieved on October 17, 2013, <http://www1.ncdc.noaa.gov/pub/data/normals/1981-2010/source-datasets/>. The SCMT, computed by the NOAA, includes adjustments to make the time series of daily temperatures homogeneous.

1 or recalibration of the weather instruments). Changes in observation procedures or in an
2 instrument's environment may also occur during the 30-year period. The NOAA accounted
3 for documented and undocumented anomalies in calculating its SCMT.⁴⁰ The meteorological
4 and statistical procedures used in the NOAA's homogenization for removing documented and
5 undocumented anomalies from the T_{\max} and T_{\min} monthly temperature series is explained in a
6 peer-reviewed publication.⁴¹

7 Subsequent to determining the homogenized monthly temperature time series
8 described above, the NOAA also calculates monthly normal temperature variables based on a
9 30-year normal period, e.g. maximum, minimum, average temperatures, and HDDs. These
10 monthly normals are not directly usable for Staff's purposes because the NOAA daily normal
11 temperatures and HDD values are derived by statistically "fitting" smooth curves through
12 these monthly values. As a result, the NOAA daily normal HDD values reflect smooth
13 transitions between seasons and do not directly relate to the 30-year time series of MDT as
14 used by Staff. However, in order for Staff to develop adjustments to normal HDD for gas
15 usage, Staff must calculate a set of normal daily HDD values that reflect the actual daily and
16 seasonal variability.

17 Staff used a ranking method to calculate normal weather estimates of daily normal
18 temperature values, ranging from the temperature that is "normally" the hottest to the
19 temperature that is "normally" the coldest, thus estimating "normal extremes." Staff ranked
20 MDTs for each month of the 30-year history from hottest to coldest and then calculated the
21 normal daily temperature values by averaging the ranked MDTs for each rank, irrespective of
22 the calendar date. The ranking process results in the normal extreme being the average of the
23 most extreme temperatures in each month of the 30-year normals period. The second most
24 extreme temperature is based on the average of the second most extreme day of each month,
25 and so forth. Staff's calculation of daily normal temperatures is not the same as NOAA's
26 calculation of smoothed daily normal temperatures because Staff calculated its normal daily

⁴⁰ Arguez, A., I. Durre, S. Applequist, R. S. Vose, M. F. Squires, X. Yin, R. R. Heim, Jr., and T. W. Owen, 2012: NOAA's 1981-2010 U.S. Climate Normals: An Overview. *Bulletin of the American Meteorological Society*, 93, 1687-1697.

⁴¹ Menne, M.J., and C.N. Williams, Jr., (2009) Homogenization of temperature series via pairwise comparisons. *J. Climate*, 22, 1700-1717.

1 | temperatures based on the rankings of the actual temperatures of the test year, and the test
2 | year temperatures do not follow smooth patterns from day to day. More details of Staff's
3 | ranked average method for normal weather are explained in a peer-reviewed publication.⁴²
4 | Using these normal daily temperatures, Staff calculated normal HDD for each day of the test
5 | year. This information was made available to Staff witnesses Michelle A. Bocklage and
6 | Joseph P. Roling to calculate the weather normalization adjustments.

7 | *Staff Expert/Witness: Seoung Joun Won, PhD*

8 | **h. Revenue – Weather Normalization**

9 | **Introduction and Summary**

10 | Since the primary use of natural gas in Missouri is for the purpose of space heating,
11 | natural gas sales are dependent upon weather conditions. As natural gas rates are based on
12 | usage, it is important to remove abnormal weather influences from the test year in order to
13 | provide a more accurate representation of “normal” natural gas usage. This analysis addresses
14 | Staff's weather-normalization of natural gas sales for Ameren Missouri customers.

15 | **Weather Normalization Adjustment**

16 | Staff conducted an analysis of weather normalization for the Residential Service (RS),
17 | General Service (GS), Interruptible Service (IS), Standard Transportation (ST) and
18 | Transportation classes for the test year ending June 30, 2018. Staff's overall weather
19 | normalization analyses determined that the weather during the test year was warmer than
20 | normal, so actual sales were lower than normal. In order to account for the reduced sales and
21 | warmer weather, Staff performed an adjustment to increase natural gas sales to reflect usage
22 | and sales for “normal” weather conditions. The following table illustrates the approximate
23 | adjustments to the natural gas volumes of each class.

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27 | continued on next page

⁴² Won, S. J., Wang, X. H., & Warren, H. E. (2016). Climate normals and weather normalization for utility regulation. *Energy Economics*, 54, 405-416.

1

Class	Approximate Adjustment
RS	.48%
GS	.25%
ST	.07%
Transportation	-2.50%

2

3 These adjustments account for changes in sales to reflect normal weather and the
4 annual number of days in a billing cycle.

5 **Process Used to Weather Normalize Sales**

6 Staff adjusted billing units for each class to account for customers who switched
7 between rate classes during the test year and to account for known and measurable changes to
8 rate classes during the update and true-up periods. Staff adjusted for these changes by
9 removing the customer accounts that left the GS and Transportation Service and moved those
10 customer accounts to the appropriate GS or Transportation Service.

11 Staff's weather normalized adjustments of natural gas sales account for deviations
12 from what are considered normal weather conditions that occurred during the test year.
13 Staff adjusted monthly natural gas volumes to normal by first adjusting the annual number of
14 days for each billing cycle to 365. If the annual number of days in a billing cycle is below or
15 above 365, Staff added or subtracted the difference to the non-heating season.⁴³ This
16 adjustment is performed so that each billing cycle is set to the same total number of days.
17 Since natural gas utilities are winter peaking, any HDDs that are removed based on the 365
18 day adjustment are added back to October, since it is a shoulder month to the heating season.
19 Using the non-heating months minimizes the impact on the heating season.

20 After each billing cycle is adjusted so that it contains the proper number of days, the
21 next step is to calculate the difference between normal and actual HDDs for each billing
22 cycle. Then, Staff multiplied these differences by the estimate rendered from the regression

⁴³ Since it cannot be determined exactly which day is causing the annual number of days to be over or less than 365 days, adding or removing an average non-heating season day results in an adjustment with the lesser impact compared to an average heating season day.

1 analysis described in further detail below to determine the changes in sales volumes in each
2 billing cycle due to abnormal weather. The next step is to sum each of the changes in sales
3 volumes per month due to abnormal weather. Lastly, Staff adds the monthly adjustments in
4 sales volumes to the total monthly natural gas sales to calculate the normalized volumes.

5 **Application of Weather Normalization Process**

6 Staff witness Dr. Seoung Joun Won provided the daily actual and daily normal HDDs
7 for Ameren Missouri. Dr. Won addresses the calculation of HDDs as part Section VI.A.2.g.
8 of this Report regarding Weather Normal Variables Used for Weather Normalization .

9 Ameren Missouri has established billing cycles for groups of natural gas accounts
10 where each billing cycle corresponds to different days of the month. Customers' accounts are
11 usually grouped into one of approximately twenty one (21) billing cycles. Staggering the
12 billing of customers' accounts throughout the billing month allows Ameren Missouri to
13 distribute the work required in order to bill its customers. Based on the number of customers,
14 usage, and HDD per billing cycle per month, Staff calculated the average use per customer
15 per day and the number of HDD per day for each of the twelve months of the test period for
16 the rate classes mentioned above for Ameren Missouri.

17 Staff used a regression analysis to estimate the relationship between the usage per
18 customer per day and the HDD per day for each month. Once the billing cycles were
19 adjusted, Staff calculated the difference between normal and actual HDDs for each billing
20 cycle. The third step was to multiply these differences by the estimate rendered from the
21 regression analysis. The fourth step was to sum the billing cycles' adjusted volumes by billing
22 month. Then, Staff added the monthly adjustments in ccfs⁴⁴ to the total monthly natural gas
23 sales to calculate normalized volumes.

24 The billing month averages are calculated from the data provided by the utility on the
25 numbers of customers, natural gas usage, and summed HDD from the billing cycles for each
26 billing month by customer class. The daily average HDD in each billing month and billing
27 cycle is weighted by the percentage of customers in that billing cycle. Thus, the billing cycles
28 with the most customers are given more weight when computing the daily average HDD for

⁴⁴ 100 cubic feet of natural gas.

1 the billing month. Staff uses the twelve monthly average-usage-per-customer amounts across
2 the billing cycles to calculate the daily average usage for one month. The usage and weather
3 billing month averages are used to study the relationship between space-heating natural gas
4 usage and cold weather, which is used to estimate the change in usage related to a change
5 in HDD.

6 Staff uses regression analyses to estimate the relationship for each class of customers.
7 The regression equation develops quantitative measures that describe the relationship between
8 daily space-heating sales per customer in ccf to the daily HDD. The regression equation
9 estimates a change in the daily natural gas usage per customer whenever the daily average
10 weather changes by HDD.

11 Staff recommends that the Commission utilize Staff's weather normalization
12 adjustments that are outlined above and in the supporting work papers.

13 *Staff Expert/Witness: Michelle A. Bocklage*

14 **i. Large Volume Customer Adjustments**

15 Ameren Missouri provided monthly billing units and information for every customer
16 who took service on the Interruptible Service, Large Volume Transportation Service, or
17 Special Contract rates during the test year. Staff traditionally uses these units as the basis of
18 its analysis and adjustments of large customer sales. Based upon Staff's investigation and
19 analysis of this information, Staff will make adjustments to reflect the migration of customers
20 to other rate classes ("Rate Switching") for Large Volume Transportation, Interruptible, and
21 Special Contract customers and the effect of weather on certain Large Volume Transportation
22 customers. The weather normalized usage applied in this case was provided by Staff witness
23 Seoung Joun Won. There were no Rate Switchers for Ameren Missouri during this test year
24 so Staff did not make any adjustments to revenues.

25 *Staff/Expert/Witness: Joseph P. Roling*

26 **j. Industrial Customers Gains/Losses Adjustment**

27 Adjustments to reflect customer gains and/or losses are made to the large customers'
28 rate revenues. This adjustment reflects the effect of customers that either began taking service
29 on the Ameren Missouri system during the test year, or that quit taking service on the Ameren
30 Missouri system during the test year. The purpose of this adjustment is to provide a more

1 accurate representation of the number of customers taking service in the class. If a customer
2 came on the system, customer revenues were adjusted for the 'missing' months. If a customer
3 dropped off the Ameren Missouri system, their revenues were removed from the current
4 revenue calculation. There were no customers who switched into or out of the Large Volume
5 Transportation or Interruptible service classes during this test year so Staff did not make any
6 adjustments to revenues.

7 *Staff/Expert/Witness: Joseph P. Roling*

8 **k. Special Contract Customers**

9 Three customers are currently served under the Ameren Missouri special contract rates
10 tariff⁴⁵. In the test year, one customer's contract reached a level of usage that triggered a rate
11 change per the customer's contract. For this customer Staff annualized revenues as if the rate
12 in effect at the end of the test period was in effect for the entire test period. Also, two
13 customers have exceeded the original expiration date of their contracts; however, the contracts
14 are not canceled or changed unless either Ameren Missouri or the customer requests a change
15 or gives notice of cancellation.⁴⁶ Per the Ameren Missouri response to Staff Data Request
16 No. 0250, a detailed analysis of the cost to the customer to bypass Ameren Missouri's system
17 and the current contract rates has not been performed in the last 5 years. Because the decision
18 to allow the contract to continue is an annual decision for Ameren Missouri, Staff cannot
19 recommend reflection of the discounted rate in the absence of information to review the
20 prudence of continuation of the discounted rate. Staff annualized revenue for these two
21 customers as if the two customers were served under the Large Volume Transportation tariff.

22 *Staff Expert/Witness: Joseph P. Roling/Robin Kliethermes*

23 **B. Other Revenue Adjustments**

24 Ameren Missouri also receives revenue related to late fees, disconnections,
25 reconnections, forfeited discounts, and rental revenue. Staff analyzed other revenue levels
26 from July 2013 through February 2019. Staff determined the ongoing level of other revenue
27 based on each type of other revenue collected. Staff included test year revenue for forfeited

⁴⁵ Tariff Sheet No. 18.1.

⁴⁶ A contract cancellation requires advanced notice outlined in each customer's individual contracts.

1 discounts, installation/trouble calls, remittance of sales tax and construction billings as well as
2 connection/disconnection fees.

3 Staff included February 2019 rental revenues multiplied by 12 as annualized revenue
4 for affiliate rental. ** _____

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12 _____ **

13 Staff will review each type of other revenue through May 31, 2019 as part of its true-up audit
14 in this case.

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

16 **C. Payroll and Employee Benefits**

17 **1. Payroll and Payroll Taxes**

18 **Payroll**

19 Staff computed annualized payroll by adjusting the test year ending June 30, 2018 to
20 account for the a) changes in employee levels through February 28, 2019, b) the increase in
21 wage rates through February 28, 2019, and c) ** _____

22 _____⁴⁷, _____
23 _____ . ** Staff's annualized level of payroll reflects the O&M ratio for the

24 12 months ending June 30, 2018. In addition, Staff is continuing to evaluate the level of
25 bonus payments made by Ameren during the test year and has submitted Data Request
26 No. 030.1 requesting additional information. Staff may propose additional adjustments to
27 normalize these payments as part of its true-up audit.

_____ ⁴⁷ See Section VI.D.12.a. of this report regarding lobbying.

1 Staff distributed its payroll adjustment based upon the actual payroll distribution
2 experienced by Ameren Missouri during the test year ending June 30, 2018. Staff will
3 re-examine the employee levels, O&M ratio, and actual salary data for Ameren Missouri
4 gas direct payroll as well as Ameren Services payroll that is allocated to gas operations
5 to determine if any further adjustments to the cost of service are necessary during Staff's
6 true-up audit.

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

8 **Payroll Taxes**

9 Staff's annualized level of payroll taxes reflects an overall increase in the test year
10 amounts for Federal Insurance Contributions Act ("FICA"), Old Age Survivors and Disability
11 Insurance ("OASDI"), FICA Medicare, Federal Unemployment Tax Act ("FUTA"), and State
12 Unemployment Tax Act ("SUTA") payroll taxes. This increase is primarily due to the
13 increase in the number of employees at both the Ameren Missouri and Ameren Services
14 levels. As part of its true-up audit, Staff will re-examine its analysis of payroll tax expense to
15 determine if any further adjustments are necessary for the cost-of-service calculation.

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

17 **2. Other Employee Benefits**

18 Ameren Missouri offers a number of benefits to its employees including medical,
19 dental, vision, 401-k, and long term disability. Staff has reflected costs for the 12 twelve
20 months ending February 28, 2019 in its cost of service calculation. Staff will continue to
21 analyze employee levels and actual benefit costs data as part of its true-up audit through
22 May 31, 2019 as information becomes available.

23 In addition to annualizing the benefits above, Staff has made adjustments to exclude
24 certain benefits from the cost of service calculation. ** _____
25 _____
26 _____

27 _____ ** Staff has removed the costs associated with ** _____
28 _____ ** for the test year ending June 30, 2018 as these costs are not necessary for
29 the provision of safe and adequate service and thus provide no direct benefit to the ratepayers.

1 The amendments delineated in this update are to be applied retrospectively for the
2 presentation of the service cost component and the other components of net periodic pension
3 cost and net periodic postretirement benefit cost in the income statement and prospectively for
4 the capitalization of the service cost component of net periodic pension cost and net periodic
5 postretirement benefit cost in assets on the balance sheet. Disclosures in the financial
6 statements are required for the first period of adoption.

7 The Federal Energy Regulatory Commission (“FERC”) Office of Enforcement issued
8 an accounting guidance order on December 28, 2017 to the industry on how to apply the
9 accounting and reporting requirements when adopting ASU-2017-07. FERC directed that
10 there would be no change in recording of the non-service costs; they would remain in
11 account 926. However, FERC provided two options to utilities:

- 12 1. continuance of capitalizing all or a portion of service and non-service net
13 benefit costs; or
- 14 2. follow the capitalization requirements under the ASU, and elect to make a
15 one-time non-revocable election to switch to fully expensing the non-
16 service costs to conform to generally accepted accounting principles
17 (“GAAP”) reporting and then provide notice of that change to FERC.

18 Ameren Missouri instituted the new FASB guidance in January 2018 and utilized FERC’s
19 one-time election for expense treatment. Staff agrees that this treatment is appropriate. Since
20 that point Ameren Missouri has been fully expensing the non-service pension and OPEB costs
21 and capitalizing a portion of the service cost component. At this time, this update has caused
22 an increase in capitalization (all else equal) of the net benefit costs for pensions and
23 OPEBs for Ameren Missouri’s gas operations in the test year due to the overall negative
24 amount. This update will also affect the tracking mechanism in that more expense will be
25 offset against that built into rates for Pensions and OPEBs, when the net benefit cost
26 difference is positive.

27 **a. Pensions**

28 **1. Accounting Standards Codification (“ASC”) 715-30**
29 **(Formerly FAS 87)**

30 Ameren has one qualified pension plan called the Ameren Retirement Plan that covers
31 all of Ameren’s operations. Ameren’s actuarial consultants, Willis Towers Watson, determine

1 the allocation valuation for Ameren Missouri's portion of net benefit cost. The minimum
2 required cash contributions for the Employee Retirement Income Security Act ("ERISA")
3 funded status are determined at a total plan level. As of January 1, 2018, the Ameren
4 Retirement Plan is overfunded at 112.98% with an effective discount rate of 5.66% based on
5 the requirements of ERISA and the Pension Protection Act of 2006. The results for
6 January 1, 2019 will be available in the summer of 2019 once the 2019 actuarial valuation is
7 completed, however that will occur subsequent to the true-up cutoff date in this case so Staff
8 will reflect actual plan year 2018 costs through May 31, 2019 during its true-up audit.

9 **i. ASC-715-30 Pension Tracker**

10 In Case No. GR-2007-0003, a Stipulation and Agreement was established that
11 required Ameren Missouri to fund its qualified annual pension expense through an external
12 trust and track the difference between the annual funded pension expense and the level
13 included in rates as established in a previous rate case. The agreement between the parties
14 established the ongoing ratemaking treatment for annual qualified pension cost under
15 FASB ASC Subtopic 715-30 (formerly FAS 87). ** _____

16 _____
17 _____ ** Ameren Missouri's pension expense and rate base amounts
18 include direct charged costs as well as allocated costs from Ameren Services. Staff
19 accumulates the difference between the annual funded pension cost and the amount included
20 in rates in the tracking mechanism, and has then included that balance in rate base and
21 amortized over a period of five years as an addition or reduction to pension expense. Ameren
22 Missouri also has non-qualified pension expense, which relates to the Ameren Supplemental
23 Retirement Program. ** _____

24 _____ ** Staff has verified that the nonqualified pension expense has not been
25 included in the tracker.

26 Staff is proposing to reflect pension tracker amounts as reflected in Ameren
27 Missouri's direct case, however those amounts contain estimates and Staff intends to reflect
28 actual pension expense and tracking amounts once that information is available. Staff will
29 re-examine the amounts in the pension tracking mechanism and associated amortization and
30 reflect actual amounts through the May 31, 2019 cut-off date, during its true-up audit.

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ii. Annualization

Staff annualized the qualified pension expense to reflect the Plan Year 2018 estimated expense for FAS 87 recommended by the actuarial firm of Willis Towers Watson for Ameren Missouri’s qualified pension plan. Staff includes this amount to ensure that the amount collected in rates is sufficient to recover the estimated pension expense provided by Willis Towers Watson. This is the new base expense level that will be utilized in the pension tracker, after rates are established in this case, in order to determine the difference between pension expense included in rates and the amount actually incurred and funded by Ameren Missouri on an ongoing basis for qualified pension expense.

Staff is including Ameren Missouri’s estimated pension cost as included in its direct filing and provided by Ameren Missouri’s actuary, Willis Towers Watson until Staff can update these estimated amounts with actual Plan Year 2018 costs. This level should be the amount used in the pension tracker, after rates are established in this case, to determine the difference between pension expense included in rates and the amount actually incurred and funded by Ameren Missouri. The cost related to the non-qualified pension plan, the Ameren Supplemental Retirement Program, ** _____

_____ ** will be addressed in a separate section of this cost of service report. Staff will re-examine pension expense through the May 31, 2019 cut-off date, during its true-up audit.

Staff Expert/Witness: Lisa M. Ferguson

b. Other Post-Employment Benefits (“OPEBs”)

1. ASC 715-60 (formerly FAS 106) OPEBs

Ameren has a postretirement benefit plan ** _____

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5 ** The results for January 1, 2019 will be available in the summer of 2019 once
6 the 2019 actuarial valuation is completed.

7 **i. ASC 715-60 OPEBs Tracker**

8 The Stipulation and Agreement in Case No. ER-2007-0002 also addresses the
9 ratemaking treatment for the annual OPEBs cost under FASB's ASC Subtopic 715-60
10 (formerly FAS 106). As with pension expense, the agreement among the parties requires
11 Ameren Missouri to externally fund annual OPEB expense and establish a tracker for the
12 difference between the amount of OPEB expense in rates from the previous rate case and the
13 actual expense incurred. The agreement between the parties established the ongoing
14 ratemaking treatment for annual OPEBs under FASB ASC Subtopic 715-60, formerly known
15 as Financial Accounting Standard No. 106 ("FAS 106"). ** _____
16 _____

17 ** Ameren Missouri's OPEB expense and rate base amounts include
18 direct charged costs as well as allocated costs from Ameren Services. Staff accumulates the
19 difference between the annual funded OPEB cost and the amount included in rates in the
20 tracking mechanism, and has then included that balance in rate base and amortized over a
21 period of five years as an addition or reduction to OPEB expense.

22 Staff is proposing to reflect OPEB tracker amounts as reflected in Ameren Missouri's
23 direct case, however those amounts contain estimates and Staff intends to reflect actual OPEB
24 expense and tracking amounts once that information is available. Staff will re-examine the
25 amounts in the OPEB tracking mechanism and associated amortization and reflect actual
26 amounts through the May 31, 2019 cut-off date, during its true-up audit.

27 **ii. Annualization**

28 Staff also annualized OPEB expense to reflect the projected ASC 715-60 cost
29 provided by Ameren Missouri's actuary, Willis Towers Watson. This level will be the amount
30 used in the OPEB tracker, after rates are established in this case, to determine the difference

1 between ASC 715-60 expense included in rates and the amount actually incurred and funded
2 by Ameren Missouri. Staff adjusted test year OPEBs expense to reflect the Plan Year 2018
3 estimated expense for FAS 106 provided by the actuarial firm Willis Towers Watson for
4 Ameren Missouri's post-retirement benefit plan. Staff used this estimated amount to
5 determine the adjustment necessary to ensure the amount collected in rates is sufficient to
6 recover the estimated OPEBs expense provided by Willis Towers Watson.

7 Staff is accepting Ameren Missouri's estimated OPEB cost as included in its direct
8 filing and provided by Ameren Missouri's actuary, Willis Towers Watson until Staff can
9 update these estimated amounts with actual Plan Year 2018 costs. Staff will re-examine
10 OPEB expense through the May 31, 2019 cut-off date, during its true-up audit.

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

12 **c. Non-Qualified Pension Expense**

13 Ameren has a non-qualified pension plan called the Ameren Supplemental Retirement
14 Plan ** _____

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24 _____ ** Staff has normalized the
25 non-qualified pension cost using 3 Year and 5 Year averages of historic data.

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

27 **4. Incentive Compensation**

28 Ameren Missouri offers three types of incentive compensation to its employees:
29 short-term compensation, long-term compensation, and an exceptional performance bonus

1 award. The annual incentive compensation expense consists of incentive compensation paid
2 to Ameren Missouri employees as well as costs that are allocated from Ameren Services, who
3 provide various management and administrative functions to Ameren Missouri.

4 Staff has relied upon the criteria established by the Commission in the Report and
5 Order for *In re Union Electric Co.*, Case No. EC-87-114: “At a minimum, an acceptable
6 management performance plan should contain goals that improve existing performance
7 and the benefits of the plan should be ascertainable and reasonably related to the plan.”
8 29 Mo P.S.C (N.S.) 313, 325, (1987). Additionally Staff took guidance from the Report and
9 Order issued in Case No. ER-2006-0314, Kansas City Power & Light Company, where the
10 Commission noted, that “maximizing EPS could compromise service to ratepayers, such as by
11 reducing customer service or tree-trimming costs, the ratepayers should not have to bear that
12 expense.” Based upon the guidance received in those two cases, Staff recommends the
13 disallowance of any incentive compensation that is based on Ameren Missouri achieving
14 earnings related goals.

15 a. **Short-Term Incentive Compensation**

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b. Long-Term Incentive Compensation

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c. Exceptional Performance Bonus (EPB)

Ameren offers an Exceptional Performance Bonus (EPB) Program. ** _____

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Staff recommends allowing the full amount of these awards.

Staff Expert/Witness: Jason Kunst, CPA

D. Other Expenses

1. Property Tax Expense

For property assessment purposes, Ameren Missouri is required to file with its respective taxing authorities a valuation of utility property at the beginning of each assessment year, which is January 1st. Several months later, based on the information

1 provided by the utility the taxing authority will in turn send the utility what are known as
2 “assessed values” for every category of the company’s property. The taxing authority will
3 issue to the utility company a property tax rate later in the year. The final step in the process
4 is when the taxing authority issues a property tax bill to the company late in each calendar
5 year with a “due date” of December 31. The billed amount of the property taxes is based on
6 the property tax rate applied to the previously determined assessed values of the utilities
7 plant-in-service balances as of January 1 of the same year. Staff included approximately
8 ** _____ ** of property tax expense in its cost-of-service calculation which is based
9 on actual property taxes paid by Ameren Missouri during December 2018.

10 **a. Property Tax Appeals**

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This is similar to the tracking treatment that the Commission authorized in connection with a previous Ameren Missouri electric investment property tax appeal that occurred in Ameren Missouri Case No. ER-2011-0028. In Case No. ER-2011-0028, Ameren Missouri appealed various Missouri counties' assessment of its 2010 distributable property and paid the full amount of the taxes due; however, approximately \$28.9 million of the payments were paid under protest and were held in escrow by the various counties. The Commission stated in the *Report and Order* issued in Case No. ER-2011-0028:

Ameren Missouri shall track any state tax refund it receives because of its appeal of its 2010 assessment. The Commission will decide in a future rate case how any such refunds are to be handled.

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c. Staff Recommendation For Concurrent Electric and Natural Gas Rate Case Filing

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Staff Expert/Witness: Jason Kunst, CPA

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⁵⁶ See footnote 55 above.

⁵⁷ See footnote 55 above.

1 **2. Rate Case Expenses**

2 Utility companies incur various expenses in the preparation and presentation of a rate
3 case before the Commission. Included in these costs are expenses for outside counsel, expert
4 witnesses, and miscellaneous expenses for items such as travel expenses and copying costs.

5 **a. Normalization**

6 Staff has reviewed Ameren Missouri's rate case expenses through February 28, 2019
7 related to this current case for reasonableness and prudence for all of the services and costs
8 incurred. Staff has calculated a normalized level of expense to include in its cost-of-service
9 calculation based on costs incurred through February 28, 2019, to be normalized over
10 ** _____

11 _____ ** as discussed earlier in this Report as well as in the property tax, software
12 allocation and gas facilities sections of this Report.

13 Due to the fact that Staff is calculating a normalized level of expense based on the
14 costs incurred to process the current rate case, which is ongoing, Staff will continue to review
15 Ameren Missouri's incurred rate case expenses for prudence and reasonableness as the case
16 progresses. Staff will review expenses incurred through the filing of the true-up reply brief
17 date on August 23, 2019 in this case. Staff requests that the Commission require Ameren
18 Missouri to provide all documentation of rate case expense no later than two weeks after the
19 true-up reply brief date above. Staff will require a reasonable amount of time to review the
20 provided costs and supporting documentation, and will then update the normalized rate case
21 expense to include approved actual incurred expenses.

22 **b. Sharing Recommendation**

23 In the Report and Order in ER-2014-0370, the Commission stated the following:

24 The Commission finds that in order to set just and
25 reasonable rates under the facts in this case, the Commission
26 will require KCPL shareholders to cover a portion of KCPL's
27 rate case expense. One method to encourage KCPL to limit its
28 rate case expenditures would be to link KCPL's percentage of
29 recovery of rate case expense to the percentage of its rate
30 increase request the Commission finds just and reasonable.[47]
31 The Commission determines that this approach would directly
32 link KCPL's recovery of rate case expense to both the
33 reasonableness of its issue positions and the dollar value sought
34 from customers in this rate case.[48]

1 **3. Interest on Customer Deposits**

2 Ameren Missouri is required to pay interest on customer deposits equal to one
3 percentage point above the prime rate as published in the Wall Street Journal as being
4 effective on the last business day of each November. Generally, interest is calculated by
5 applying the tariffed interest rate to the level of customer deposits reflected in rate base. Staff
6 has multiplied the tariffed rate by Staff's level of customer deposits to determine the
7 annualized amount of interest expense to include in rates. Staff will re-examine interest on
8 customer deposits as part of its true-up audit.

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

10 **4. Advertising & Promotional Expense**

11 In determining its recommended level of allowed advertising expense for Ameren
12 Missouri, Staff has applied the principles it has consistently relied on by adhering to the
13 Commission's decision in Re: Kansas City Power and Light Company, Case Nos. EO-85-185
14 et al., 28 Mo.P.S.C. (N.S.) 228, 269-71 (1986). In that case, the Commission adopted an
15 approach that classifies advertisements into five categories and provides rate treatment of
16 recovery or disallowance based upon a specific rationale. The five categories of
17 advertisements recognized by the Commission are as follows:

- 18 1. General: informational advertising that is useful in the provision of
19 adequate service;
- 20 2. Safety: advertising which conveys the ways to safely use gas and to avoid
21 accidents;
- 22 3. Promotional: advertising used to encourage or promote the use of gas;
- 23 4. Institutional: advertising used to improve the company's public image;
- 24 5. Political: advertising associated with political issues.

25 The Commission utilized these categories of advertisements to explain that a utility's revenue
26 requirement should: 1) always include the reasonable and necessary cost of general and
27 safety advertisements; 2) never include the cost of institutional or political advertisements;
28 3) include the cost of promotional advertisements only to the extent the utility can provide

1 cost-justification for the advertisement (Report and Order in KCPL Case Nos. EO-85-185,
2 et al., 28 Mo. P.S.C. (N.S.) 228, 269-271 (April 23, 1986)).

3 In a previous Ameren Missouri electric rate case, Case No. ER-2008-0318, the
4 Commission issued a Report and Order that indicated that the KCPL standard for advertising
5 should be used to evaluate advertising campaigns as a whole. In the response to Staff Data
6 Request No. 0017, Ameren Missouri did not provide information regarding specific gas
7 advertising campaigns for the advertisements in the twelve months ending June 30, 2018.
8 Therefore Staff has not evaluated the advertisements on a campaign basis, only on an
9 individual ad basis.

10 Staff also reviewed advertising related items that were allocated to Ameren Missouri
11 gas operations from the Ameren level. General and safety advertising costs were not adjusted
12 by Staff. Staff recommends removal of advertising costs associated with items found to
13 be promotional, political, or institutional in nature. Please refer to Appendix 3,
14 Schedule CDC-d1 to view copies of all advertisements for which Staff has disallowed
15 rate recovery.

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

17 **5. External Auditor Fees**

18 Ameren Missouri is a publicly traded company and as such is required to disclose
19 financial information that is independently audited. In addition to financial statement audits,
20 the external audit firm typically provides other services such as tax advice and consulting
21 work. Staff analyzed historical external auditor costs from January 2015 through
22 December 2018 and determined that using an average of the costs for the four years ending
23 December 31, 2015, 2016, 2017, and 2018 is an appropriate level of outside auditor expense
24 to include in its cost of service calculation. ** _____
25 _____
26 _____

27 _____ ** Staff has
28 made an adjustment to exclude this charge from the cost of service calculation.

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

1 **6. Board of Directors and Executive Expenses**

2 During the test year ending June 30, 2018, Ameren Missouri gas operations was
3 allocated approximately ** _____ ** for certain expenses related to the Ameren
4 Corporation Board of Directors. ** _____

5 _____
6 _____ ** During its
7 review Staff found additional information regarding ** _____
8 _____ ** Staff has submitted Data Request No. 0236
9 seeking additional information on these expenses. Staff may propose further adjustments as
10 part of its true-up audit after reviewing the responses to these data requests.

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

12 **7. Lease Expense**

13 During the test year, Ameren Missouri incurred expenses related to leases on land,
14 equipment, and facilities utilized to provide service. Staff removed the amount for each lease
15 not being renewed and included the annualized level of expense for each ongoing lease in
16 effect as of February 2019 in Ameren Missouri's cost of service calculation.

17 FASB promulgates accounting standards that define how companies must account for
18 their costs, including leases, for financial reporting purposes. Until recently, leases were
19 classified as either operating or capital (now called "finance") leases. However, a new lease
20 accounting standard has been introduced by FASB that will change how companies account
21 for this item, namely Accounting Standards Update 2018-11, Leases Topic 842, Targeted
22 Improvements ("ASC 842"). The most significant change in accounting due to ASC 842
23 is that most leases formerly classified as operating in nature will now be capitalized on the
24 balance sheet. Under ASC 840, the previous lease expense guidance, FASB permitted
25 operating leases to be reported only in the footnotes of corporate financial statements and the
26 lease payments were charged to expense as incurred. Under ASC 842, the only leases that are
27 exempt from the capitalization requirement are short-term leases for which the lease period is
28 less than or equal to 12 months in length.

1 Ameren Missouri began to implement the new lease guidance on January 1, 2019, and
2 assessed its effect on the accounting for the regulated utilities: ** _____

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17 _____

18 _____ ** According to Ameren Missouri employees they have no gas operation leases
19 that meet the criteria of ASC 842.

20 Staff has requested what the impact of FASB ASC 842 would have on accounting of
21 Ameren Missouri's gas operations in Data Request No. 0262. If there is additional
22 information received by Staff that, through the response, suggests any further changes to the
23 cost of service, Staff may propose further adjustments in this area.

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

25 **8. Outside Services**

26 Ameren Missouri incurs direct charged and allocated expenses for outside businesses
27 to perform various types of work for both electric and gas operations. ** _____

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**

Staff Expert/Witness: Jason Kunst, CPA

9. Insurance Expense

Ameren Missouri maintains insurance policies with various third-party insurance providers for the purpose of mitigating potential risk of financial loss. Insurance coverage for Ameren Missouri includes crime, excess property, directors and officers, workers' compensation, fiduciary, cyber liability, and owners and contractors protection. Staff's annualization reflects the most current premium amounts as of February 2019 in order to determine an ongoing level of insurance expense. Staff will review this issue as part of true-up and examine any further policy renewals.

Staff Expert/Witness: Christopher D. Caldwell

10. Injuries and Damages

Injuries and damages represent the portions of legal claims against a utility that are not subject to reimbursement under the utility's insurance policies. Ameren Missouri records an accrual for injuries and damages for an anticipated amount of future payouts. Staff reviewed the actual injuries and damages payment levels and compared that to the ongoing reserve for this item recorded by Ameren Missouri gas from July 2013 through February 2019. Ameren Missouri also indicated that there are currently no injury or damage lawsuits pending against Ameren Missouri gas operations in its response to Staff Data Request No. 0067. Based on this analysis, Staff has determined that the test year accrual for injuries and damages is excessive in relation to actual costs incurred. Staff recommends including a three year average of injuries and damages payouts for the periods ending June 30, 2016, 2017 and 2018 in its cost of service calculation as it is the most appropriate reflection of recent experience and the best indication of an ongoing level of these expenses.

Staff Expert/Witness: Christopher D. Caldwell

1 **11. Environmental Costs**

2 Ameren Missouri has experienced costs related to environmental cleanup activities at
3 various former manufactured gas plant (“MGP”) sites. As of December 31, 2013,
4 Ameren Missouri had one remaining former MGP site for which remediation was scheduled,
5 the Columbia site. Remediation was complete at the other Ameren Missouri former MGP
6 sites prior to December 31, 2013. Ameren Missouri completed all known cleanup activities
7 for gas operations with the receipt of the completion certificate for the Columbia MGP from
8 MoDNR in October 2018. ** _____

9 _____ ** did not incur any environmental costs during the test year, and has
10 informed Staff that there are no further environmental cleanup activities.

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

12 **12. Dues and Donations**

13 Staff reviewed the membership dues paid and donations made to various organizations
14 by Ameren Missouri during the test year ending June 30, 2018. Staff recommends
15 disallowance of certain dues and donations included by Ameren Missouri in its test year
16 expenses, because these costs are not necessary for the provision of safe and adequate service,
17 and thus provide no direct benefit to ratepayers. Staff’s disallowance is consistent with prior
18 Commission practice. In *Re: Missouri Public Service, a Division of UtiliCorp United, Inc.*,
19 Case Nos. ER-97-394, et al., Report and Order, 7 Mo.P.S.C.3d 178, 212 (1998), the
20 Commission stated:

21 The Commission has traditionally disallowed donations such as
22 these. The Commission finds nothing in the record to indicate
23 any discernible ratepayer benefit results from the payment of
24 these donations. The Commission agrees with Staff in that
25 membership in the various organizations involved in this issue
26 is not necessary for the provision of safe and adequate service to
27 the MPS ratepayer.

28 Ratepayers involuntarily contribute to these organizations when recovery of these expenses by
29 Ameren Missouri is allowed in rates.

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

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a. Lobbying

Staff reviewed the dues and donations expense recorded during the test year and determined that some of the organizations to which Ameren Missouri belongs use a portion of member payments received to fund government affairs or lobbying activities. Staff traditionally disallows the cost of these activities and, therefore, has removed the associated amounts from Ameren Missouri's test year expense level.

In addition, Staff reviewed the calendars and itineraries of certain employees involved in lobbying activities that record time to Ameren Missouri gas operations, and removed a portion of employee's salaries that recorded time for lobbying activities above-the-line.

Staff Expert/Witness: Christopher D. Caldwell

13. Distribution Maintenance Expense

Staff has reviewed Ameren Missouri's actual historical non-labor distribution maintenance costs for the period of July 2013 through December 2018, and is recommending an ongoing level of maintenance expense based on the most recent three year average due to the fluctuation over time of these costs. Staff will re-examine the non-labor distribution maintenance costs as part of its true-up audit.

Staff Expert/Witness: Paul K. Amenthor

14. Uncollectible Expense

Uncollectible expense represents a portion of retail rate revenue that Ameren Missouri has been unable to collect from customers due to non-payment of their bills.

During Staff's review, Staff learned that ** _____

1 _____
2 _____ ** Ameren Missouri also still utilizes third party collections
3 agents to recover its bad debt expense.

4 Staff examined actual net write-off data for the period July 2013 through December
5 2018 and has seen a general decline in uncollectibles. Staff has included actual net write-offs
6 experienced during the test year in the cost of service. Staff will re-examine the level of
7 uncollectible expense as part of its true-up audit.

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

9 **15. PSC Assessment**

10 Commission operations are funded by assessments levied upon the utility companies
11 under its jurisdiction. The required funding level from each utility is re-evaluated each year,
12 and a new assessment amount is billed to each regulated utility on July 1. All of the
13 assessments collected in total are used to meet the Commission's operating costs for
14 regulating those utilities. Staff's PSC assessment annualization adjustment represents the
15 difference between the amount of PSC assessment recorded on Ameren Missouri's gas books
16 during the test year, or the twelve months ending June 30, 2018, and the most recent PSC
17 assessment that went into effect as of July 1, 2018 (fiscal year 2019), which is within the
18 Commission-established true-up cutoff of May 31, 2019.

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

20 **16. Energy Efficiency and Low Income Programs**

21 Ameren Missouri gas currently has two Commission approved programs in its energy
22 efficiency portfolio: (1.) Missouri Energy Efficient Natural Gas Equipment and Building
23 Shell Measure Rebate Programs ("Efficiency Programs") and (2.) Missouri Energy Efficient
24 Natural Gas Co-Delivery Program ("Co-Delivery Program") with Ameren Missouri electric.
25 The Efficiency Programs are designed to encourage more effective utilization of natural gas
26 through the replacement of less efficient natural gas equipment with high efficient ENERGY
27 STAR® qualified natural gas equipment and other high efficiency equipment and building
28 shell measures. The Co-Delivery Program is designed to deliver energy savings through one
29 or more energy efficiency programs offered by Ameren Missouri electric.

1 The Commission approved Stipulation and Agreement in Case No. GR-2010-0363⁵⁸
2 authorized a funding level for the Efficiency Programs and the Co-Delivery Program annually
3 at \$700,000 collected in base rates, \$263,000 of which is annually dedicated to the company's
4 Weatherization Program⁵⁹. The Energy Efficiency Advisory Group ("EEAG"), composed of
5 Ameren Missouri, Staff, OPC and the Missouri Division of Energy ("DE"), operates as an
6 advisory group that provides input on the design, implementation and evaluation of the
7 Efficiency Program and the Co-Delivery Program.

8 The Efficiency Program and Co-Delivery Program are intended to benefit all eligible
9 Ameren Missouri Residential or General Service natural gas rate class customers. Staff
10 recommends continuation of both programs as they are currently structured.

11 *Staff Expert/Witness: Kory Boustead*

12 **a. Weatherization Program**

13 The Ameren Missouri Weatherization Program ("Program") is intended to assist
14 qualified residential gas customers in reducing their use of energy through weatherization and
15 conservation. This is a voluntary program available to customers receiving service under the
16 Residential Service Rate. This program is administered by DE and the Program funds are
17 administered by the State Environmental Improvement and Energy Resources Authority
18 ("EI ERA") with an annual funding level of \$263,000 included in base rates. The Program
19 provides a residential weatherization grant program, including energy education, for primarily
20 lower income customers, per the Commission order approving the Unanimous Stipulation and
21 Agreement in Case No. GR-2010-0363. Staff recommends continuation of the Weatherization
22 Program as it is currently structured.

23 *Staff Expert/Witness: Kory Boustead*

⁵⁸ In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Natural Gas Service Provided to Customers in the Company's Missouri Service Area, UNANIMOUS STIPULATION AND AGREEMENT, paragraph 2 Revenue Requirement page 1.

⁵⁹ In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Natural Gas Service Provided to Customers in the Company's Missouri Service Area, UNANIMOUS STIPULATION AND AGREEMENT, paragraph 6 Energy Efficiency Programs, page 3.

1 | these two amortizations are still being recovered in rates through the effective date of rates in
2 | this proceeding. Staff recommends a return of the overcollection related to these
3 | amortizations over a period of five years.

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

5 | **18. Miscellaneous Expense**

6 | Ameren Missouri recorded a variety of miscellaneous expenses that are charged to
7 | various FERC Uniform System of Accounts (“USOA”) accounts during the 12 months ending
8 | June 30, 2018. Staff reviewed the costs recorded in the 900 accounts for items that were not
9 | already addressed by Staff in other areas such as dues and donations, advertising, lobbying
10 | etc. As part of this review Staff examined the monthly expense reports for the officers of
11 | Ameren, Ameren Services, and Ameren Missouri. Staff has removed from the test year costs
12 | for items that provided no benefit to ratepayers, such as ** _____

13 | _____
14 | _____ . **

15 | Ameren has requested an extension for response to Data Request No. 0186.1. Staff
16 | will review the response and make the necessary adjustments once the response and
17 | justification are received, if needed.

18 | *Staff Expert/Witness: Christopher D. Caldwell*

19 | **E. Income Taxes**

20 | Income tax expense, as calculated by Staff, is largely consistent with the methodology
21 | used in Ameren Missouri’s last electric rate case, Case No. ER-2016-0179. The income tax
22 | calculations begin by taking Staff’s adjusted net operating income before taxes amount and
23 | adding to or subtracting from net operating income various timing differences in order to
24 | obtain the net taxable income amount for ratemaking purposes. These “add back” and/or
25 | subtraction adjustments are necessary to identify new amounts for the tax deductions that are
26 | different from those levels reflected in the income statement as revenues or expenses. A tax
27 | timing difference occurs when the timing used in reflecting a cost (or revenue) for financial
28 | reporting purposes (book purposes) is different than the timing required by the IRS in
29 | determining taxable income (tax purposes). Current income tax reflects timing differences

1 consistent with the timing required by the IRS. The tax timing differences used in calculating
2 taxable income for computing current income tax are as follows:

3 **Add Back to Operating Income Before Taxes:**

- 4 • Book Depreciation Expense
- 5 • Book Depreciation Charged to O&M

6 **Subtractions from Operating Income:**

- 7 • Interest Expense – Weighted Cost of Debt X Rate Base
- 8 • Tax Straight-Line Depreciation
- 9 • Preferred Dividend Deduction

10 Tax timing differences can be treated for ratemaking purposes under either the
11 “flow-through” or “normalization” approaches. The tax normalization method defers, for
12 ratemaking purposes, the deduction taken for tax purposes for certain tax timing differences.
13 The effect of use of tax normalization is to allow utilities the net benefit of certain net tax
14 deductions for a period of time before those benefits are passed on to the utility’s customers in
15 rates. The flow-through tax method essentially provides for the same tax deduction taken as a
16 deduction for ratemaking purposes as is taken for tax purposes. For purposes of this rate case,
17 Staff has normalized the depreciation deduction but has flowed through the preferred dividend
18 deduction and the interest expense deduction. However, under either the tax normalization or
19 tax flow-through approach, the resulting net taxable income for ratemaking is then multiplied
20 by the appropriate federal, state and city tax rates to obtain the current liability for income
21 taxes. A federal tax rate of 21 percent, a state income tax rate of 6.25 percent, and a city tax
22 rate of .1097 percent were used in calculating Ameren Missouri’s current income tax liability.
23 The difference between the calculated current income tax provision and the per book income
24 tax provision is the current income tax provision adjustment.

25 Ameren Missouri was in a taxable position as of the third quarter of 2018, meaning
26 that any remaining net operating loss (“NOL”) balance that remained will be used to offset
27 taxable income and all deductions are expected to be utilized on the 2018 consolidated tax
28 return when it is completed and filed with the IRS in August or September 2019.

1 Staff will review income tax expense as part of its true-up audit and make additional
2 adjustments as necessary.

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

4 **1. Excess ADIT**

5 The Tax Cuts and Jobs Act was signed into law in December 2017, and a resulting
6 reduction in the corporate tax rate required the revaluation of accumulated tax timing
7 differences that were previously valued at 35% to be revalued at 21%. This excess deferred
8 tax value is required to be returned to customers over different periods based on whether the
9 excess deferred taxes are protected or unprotected. Protected excess ADIT is the portion
10 associated with accelerated depreciation tax timing differences that must be “normalized” for
11 ratemaking purposes and where the flow back of excess ADIT cannot be returned to
12 customers any more quickly than over the estimated life of the assets that gave rise to the
13 ADIT. Unprotected excess ADIT is the portion of the deferred tax reserve that resulted from
14 normalization treatment of tax timing differences other than accelerated depreciation.
15 Unprotected excess ADIT can be returned to customers over any period approved by
16 the Commission.

17 The amortization of the return of excess ADIT was initially included in rates for
18 Ameren Missouri gas customers as part of the interim rate decrease that was ordered by the
19 Commission to take effect on January 2, 2019. That interim rate decrease was reviewed by
20 Staff, agreed to amongst the parties and approved by the Commission in order to promptly
21 reduce rates in recognition of the amounts Ameren Missouri gas operations will save due to
22 the corporate federal income tax reduction resulting from the Tax Cuts and Jobs Act of 2017.
23 Staff has continued to include this ongoing excess ADIT tracking mechanism as part of
24 restating rates in this current proceeding. This amount has been reflected in the deferred taxes
25 section of the income tax schedule contained in Staff’s Direct Accounting Schedules,
26 Schedule 11 – Line 40.

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

1 **VII. Depreciation**

2 **A. Summary**

3 During the data request period, Staff requested data to support the 2014 depreciation
4 study and an update of plant additions and retirements through December 31, 2018 in Staff
5 Data Request Nos. 0238, 0239, and 0240. On April 11, 2019, Staff received the responses to
6 Staff Data Request Nos. 0239 and 0240. Staff will use all Ameren Missouri proposed
7 depreciation rates⁶⁰ until Staff can perform a depreciation study of its own. Staff will amend
8 the depreciation schedule as necessary in Staff's rebuttal testimony.

9 *Staff Expert/Witness: David Buttig, PE*

10 **1. Capitalized O&M Depreciation Expense**

11 Ameren Missouri uses power operated equipment and transportation equipment for
12 various construction projects. A portion of the depreciation expense related to the amount of
13 time this equipment is used for construction is capitalized and charged to specific projects
14 once those projects are placed in plant-in-service. Staff has removed a portion of depreciation
15 expense related to power operated equipment and transportation equipment from total
16 depreciation expense. Capitalized depreciation must be deducted from overall depreciation
17 expense for these accounts in order to prevent double recovery and to reflect total annualized
18 depreciation expense related to operations and maintenance. Staff will re-examine the amount
19 of capitalized O&M depreciation in relation to the May 31, 2019 plant balances as part of its
20 true-up audit.

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

22 **VIII. Appendices**

23 **Appendix 1 - Staff Credentials**

24 **Appendix 2 - Support for Staff Cost of Capital Recommendation**

25 **Appendix 3 - Other Staff Schedules**

⁶⁰ Depreciation rates found in Schedule JFW-D1 pages 50 and 51 of the Direct Testimony of John F. Wiedmayer filed in this case.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF PAUL K. AMENTHOR

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

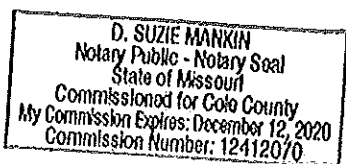
COMES NOW PAUL K. AMENTHOR and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Paul K. Amenthor
PAUL K. AMENTHOR

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of April 2019.



D. Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF KORY J. BOUSTEAD

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW KORY J. BOUSTEAD and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

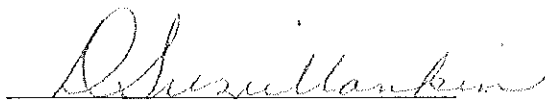
Further the Affiant sayeth not.



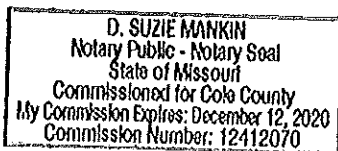
KORY J. BOUSTEAD

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 18th day of April 2019.



Notary Public



BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF CHRISTOPHER D. CALDWELL

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

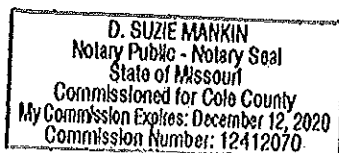
COMES NOW CHRISTOPHER D. CALDWELL and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

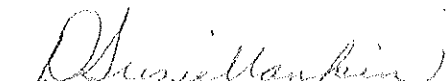
Further the Affiant sayeth not.


CHRISTOPHER D. CALDWELL

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of April 2019.




Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF DAVID BUTTIG, PE

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW DAVID BUTTIG, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

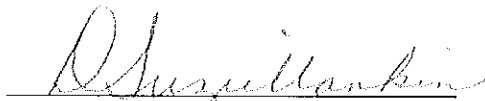


DAVID BUTTIG, PE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 17th day of April 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070



Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF NATELLE DIETRICH

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW NATELLE DIETRICH and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

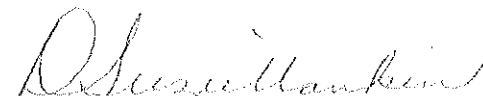


NATELLE DIETRICH

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 18th day of April 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070



Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

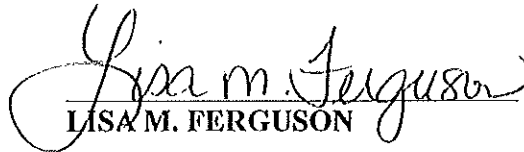
In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF LISA M. FERGUSON

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW LISA M. FERGUSON and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

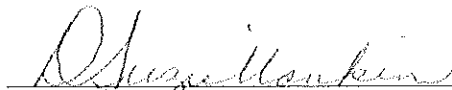
Further the Affiant sayeth not.


LISA M. FERGUSON

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of April 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070


Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF ROBIN KLIETHERMES

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW ROBIN KLIETHERMES and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

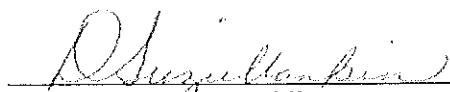
Further the Affiant sayeth not.



ROBIN KLIETHERMES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 19th day of April 2019.



Notary Public

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI


In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase) Case No. GR-2019-0077
its Revenues for Natural Gas Service)

AFFIDAVIT OF JASON KUNST, CPA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW JASON KUNST, CPA and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

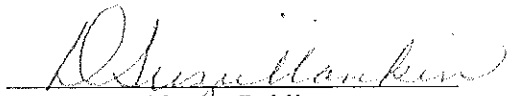


JASON KUNST, CPA

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of April 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070



Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF JOSEPH P. ROLING

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

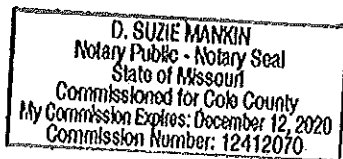
COMES NOW JOSEPH P. ROLING and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

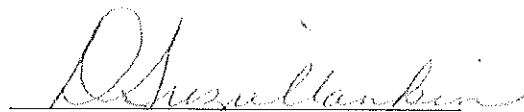
Further the Affiant sayeth not.


JOSEPH P. ROLING

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 18th day of April 2019.




Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF JEFFREY SMITH

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW JEFFREY SMITH and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

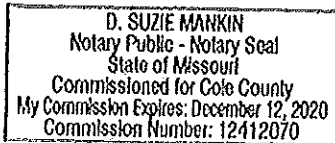
Further the Affiant sayeth not.

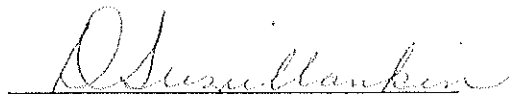


JEFFREY SMITH

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 18th day of April 2019.





Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Increase)
its Revenues for Natural Gas Service) Case No. GR-2019-0077

AFFIDAVIT OF SEOUNG JOUN WON, PhD

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW SEOUNG JOUN WON, PhD and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report - Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

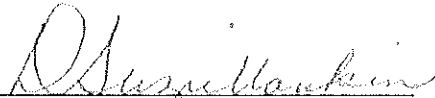


SEOUNG JOUN WON, PhD

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 17th day of April 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070



Notary Public