

## MEMORANDUM

TO: Missouri Public Service Commission Official Case File  
File No. GR-2017-0341, Union Electric Company d/b/a Ameren Missouri

FROM: Anne Crowe, Utility Regulatory Auditor IV – Procurement Analysis  
Kwang Choe, Ph.D., Regulatory Economist – Procurement Analysis  
Jacob Robinett, Utility Engineering Specialist III – Procurement Analysis

/s/ David M. Sommerer 10/1/18                      /s/ Jeff Keevil 10/1/18  
Project Coordinator / Date                              Staff Counsel’s Office / Date

/s/ Keenan Patterson, P.E. 10/1/18  
Utility Regulatory Engineer II/ Date

SUBJECT: Staff Recommendation in File No. GR-2017-0341, Union Electric Company  
d/b/a Ameren Missouri, 2016-2017 Actual Cost Adjustment Filing

DATE: October 1, 2018

### EXECUTIVE SUMMARY

On October 18, 2017, Union Electric Company d/b/a Ameren Missouri (“Ameren Missouri” or “Company”) filed its Actual Cost Adjustment (“ACA”) for the 2016-2017 period. This filing revises the ACA rates based upon the Company’s calculations of the ACA balances.

The Procurement Analysis Department Staff (“Staff”) of the Missouri Public Service Commission has reviewed the Company’s ACA filing. A comparison of billed revenue recovery with actual gas costs will yield either an over-recovery or under-recovery of the ACA balance.

For gas cost recovery, Ameren Missouri has a single Purchased Gas Adjustment (“PGA”)/ACA rate division plus an incremental one specifically applicable to the customers in the Rolla service area. The Rolla area Ameren Missouri customers served from MoGas Pipeline (“MoGas”) continue to pay an additional incremental PGA and ACA charge for MoGas transportation.

Staff conducted the following analyses:

- a review of billed revenue compared with actual gas costs,
- a reliability analysis including a review of estimated peak-day requirements and the capacity levels needed to meet these requirements,

\*\* Denotes Confidential Information \*\*

- a review of the Company’s natural gas supply plans including a review of the Company’s gas purchasing practices to evaluate the prudence of the Company’s purchasing decisions for this ACA period; and,
- a hedging review to evaluate the reasonableness of the Company’s hedging practices for this ACA period.

Staff has no dollar adjustments related to Reliability Analysis and Gas Supply Planning. However, Staff’s comments and recommendations regarding this area are discussed within the Reliability Analysis and Gas Supply Planning section of the memorandum.

Staff has no adjustments related to hedging. However, Staff’s comments and recommendations regarding hedging practices are addressed in the Hedging section of the memorandum.

Staff has proposed no dollar adjustments to the Company's ACA account balances filed October 18, 2017. Staff recommends the Commission issue an order directing the Company to establish the ACA account balances shown in the table below to reflect the under or (over)-recovery balances as of August 31, 2017.

An over-recovery reflects an amount that is owed to the customer by the Company and is shown as a negative number. An under-recovery is an amount that is owed to the Company by its customers and is shown in the table below as a positive number.

	<b>Balances per Ameren Missouri Filing</b>	<b>Current Period Staff Adjustments</b>	<b>Staff Recommended Ending Balances 8/31/17</b>
Firm Sales ACA	\$ 3,862,568	\$ 0	\$ 3,862,568
Interruptible Sales ACA	\$ (18,489)	\$ 0	\$ (18,489)
Rolla System	\$ 26,176	\$ 0	\$ 26,176

Additionally, Staff recommends the Commission order the Company to respond to the Staff Recommendation Memorandum within 45 days.

## **STAFF'S TECHNICAL DISCUSSION AND ANALYSIS**

Staff's discussion of its findings is organized into the following four sections:

- I. Overview
- II. Reliability Analysis and Gas Supply Planning
- III. Hedging
- IV. Recommendations

Each section explains Staff's concerns and recommendations.

### **I. OVERVIEW**

Ameren Missouri's natural gas operations are served by the following interstate pipelines: Panhandle Eastern Pipe Line Company, LP (PEPL), Trunkline (upstream of PEPL), Texas Eastern Transmission, LP ("Texas Eastern" or "TETCO"), Natural Gas Pipeline Company of America, LLC ("NGPL"), Southern Star Central Gas Pipeline, Inc ("SSC") and MoGas Pipeline ("MoGas"). PEPL and SSC serve approximately 106,700 customers in the Jefferson City/Columbia area. TETCO serves approximately 18,700 customers in the Cape Girardeau area. NGPL serves approximately 1,600 customers in the Marble Hill area. PEPL and MoGas serve approximately 3,900 customers in the Rolla, Salem, and Owensville area.

### **II. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING**

As a regulated gas corporation providing natural gas service to Missouri customers, the Local Distribution Company ("LDC") is responsible for: 1) conducting reasonable long-range supply planning, and 2) the decisions resulting from that planning. One purpose of the ACA process is to review Ameren Missouri's planning for gas supply, transportation, and storage to meet its customers' needs. For this analysis, Staff reviewed the LDC's plans and decisions regarding estimated peak day requirements and the capacity levels to meet those requirements, peak day reserve margin and the rationale for this reserve margin, and natural gas supply plans for various weather conditions.

Staff has no proposed financial adjustments for the 2016/2017 ACA period related to Reliability Analysis and Gas Supply Planning. Staff's review of the Company's service areas produced the following comments and concerns:

**A. Storage Planning**

The Company's storage plans do not allow for warmer weather in November. For example, the storage plans provided in response to DR54 for the PEPL Service Area estimate storage at 99% at the end of October. Staff is concerned that if warmer weather was experienced in the first half of November that the Company may not have the flexibility it needs to put any excess gas into storage due to warmer weather. Staff recommends the Company adjust its ending October planned balances to accommodate the potential for warmer weather in the first half of November.

**B. Reserve Margins**

**Reserve Margin – Panhandle – Columbia/Jefferson City Region**

\*\* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ . \*\* Staff encourages the Company to evaluate its capacity needs for the Columbia region on an annual basis.

**Panhandle Eastern and MoGas Pipeline Reserve Margin – Rolla System**

\*\* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

. \*\*

**Natural Gas Pipeline Company of America Gas Supply**

\*\*

---

---

---

. \*\*

**III. HEDGING**

The Staff reviewed Ameren Missouri's hedging program. The Company's goal is to hedge prices to reduce market price volatility. In particular, Ameren Missouri's stated objective is to create a forward gas supply portfolio and to dollar-cost-average gas supply prices to mitigate price volatility for the PGA sales customers, among other objectives. The current planning horizon for gas supply purchases and price hedging is thirteen seasons or six and one-half years. Gas supply transactions and price hedges for this period are phased in, based on factors including current futures prices, availability of gas supply, as well as general market conditions.

Ameren Missouri receives regular natural gas market reports from energy and financial firms and regular market reports and assessments. The Staff reviewed Ameren Missouri's hedging practices for the winter months, November 2016 through March 2017. Ameren Missouri's hedging implementation plan is to protect approximately \*\* \_\_\_\_ \*\* percent of normal winter demand requirements against market price volatility for the three Ameren Missouri systems, PEPL-UE, TETCO-UE and NGPL-UE. The price protection, including storage, comes from financial natural gas swaps, and call options for PEPL-UE. Storage and call options were utilized for TETCO-UE. The financial hedges were placed between early-December 2012 and early-November 2016 for the winter heating season of November 2016 through March 2017. These resulted in \*\* \_\_\_\_\*\* percent hedged overall for Ameren Missouri, based on actual

delivered volumes for the winter months, and \*\* — \*\* percent based on normal volumes for the winter months.<sup>1</sup>

Staff reviews the prudence of a Company's decisions based on what the Company knew, or should have reasonably known, at the time it made its hedging decisions. The Company's hedging planning should be flexible enough to incorporate changing market circumstances. The Company should evaluate its hedging strategy in response to changing market dynamics as to how much the existing hedging strategy actually benefits its customers while balancing market price risk. For example, the Company should continue to evaluate its current strategy of financially hedging summer storage injections regarding potentially less percentage coverage and using more cost-effective financial instruments under the current market where the market prices have become relatively less volatile. Additionally, the Company should carefully plan for the price protected volumes based on the reasonably forecasted normal requirements consistent with its hedging goal.

Finally, Staff recommends the Company continue to assess and document the effectiveness of its hedges for the 2017-2018 ACA period and beyond. The analysis should include identifying the benefits/costs based on the outcomes from the hedging strategy, and evaluating any potential improvements on the future hedging plan and its implementation. During various proceedings in the past, at Staff's request, Ameren Missouri has provided a useful summary of how the Company's hedges (swaps) have performed against market pricing, (i.e., the impact of purchases without the hedges). The Company has provided that analysis which looks back over an extensive historical period. This hedge performance or mark-to-market summary is helpful in seeing the long term financial impact of the hedge program. Staff recommends that Ameren Missouri continue to develop this summary in future ACA periods.

---

<sup>1</sup> Although the costs of hedging are spread across the three systems, operational impacts of the hedging may affect each system differently. PEPL-UE and TETCO-UE were \*\* \_\_\_\_ \*\* and \*\* \_\_\_\_ \*\* hedged, respectively, for November 2016 through March 2017 based on actual delivered gas. PEPL-UE and TETCO-UE were \*\* \_\_\_\_ \*\* and \*\* \_\_\_\_ \*\* hedged based on normal volumes. Storage was utilized in the past for NGPL-UE but the storage contract expired in March 2015. Since there is one system-wide PGA rate, the specific regional differences are averaged to all systems.

#### IV. RECOMMENDATIONS

Staff recommends the Commission issue an order directing the Company to establish the ACA account balances shown in the table below to reflect the under or (over)-recovery balances as of August 31, 2017.

An over-recovery reflects an amount that is owed to the customer by the Company and is shown as a negative number. An under-recovery is an amount that is owed to the Company by its customers and is shown in the table below as a positive number.

	<b>Balance per Ameren Missouri Filing</b>	<b>Current Period Staff Adjustments</b>	<b>Staff Recommended Ending Balances 8/31/17</b>
Firm Sales ACA	\$ 3,862,568	\$ 0	\$ 3,862,568
Interruptible Sales ACA	\$ (18,489)	\$ 0	\$ (18,489)
Rolla System	\$ 26,176	\$ 0	\$ 26,176

1. Staff has no dollar adjustments related to Reliability Analysis and Gas Supply Planning. However, Staff asks the Commission to order Ameren Missouri to respond to Staff's comments and recommendation in the Reliability Analysis and Gas Supply Planning section.
2. Staff also asks the Commission to order Ameren Missouri to respond to the comments// recommendations expressed by Staff in the Hedging Section. Staff has no dollar adjustments related to Hedging.
3. Staff also asks the Commission to order Ameren Missouri to respond to the concerns, comments, and the recommendations contained herein within 45 days.

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


In the Matter of Union Electric Company d/b/a     )  
Ameren Missouri's Changes to Company's         )  
Purchased Gas Adjustment (PGA) Clause            )     Case No. GR-2017-0341

**AFFIDAVIT OF KWANG Y. CHOE, PhD**

STATE OF MISSOURI     )  
  ) ss  
COUNTY OF COLE     )

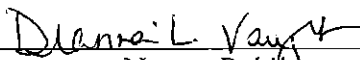
**COMES NOW** Kwang Y. Choe, PhD, and on his oath states that he is of sound mind and lawful age; that he contributed to the foregoing Staff Memorandum form; and that the same is true and correct according to his best knowledge and belief.

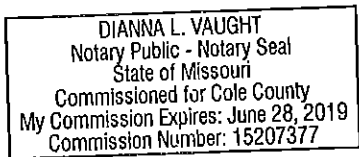
Further the Affiant sayeth not.

  
\_\_\_\_\_  
Kwang Y. Choe, 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 1st day of October, 2018.

  
\_\_\_\_\_  
Notary Public





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

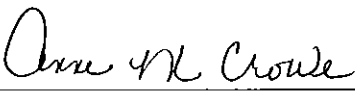
In the Matter of Union Electric Company d/b/a     )  
Ameren Missouri's Changes to Company's     )     Case No. GR-2017-0341  
Purchased Gas Adjustment (PGA) Clause     )

**AFFIDAVIT OF ANNE M. CROWE**

STATE OF MISSOURI     )  
  ) ss  
COUNTY OF COLE     )

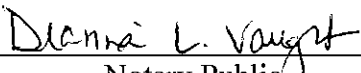
**COMES NOW** Anne M. Crowe, and on her oath states that she is of sound mind and lawful age; that she contributed to the foregoing Staff Memorandum form; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

  
\_\_\_\_\_  
Anne M. Crowe

**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 1st day of October, 2018.

  
\_\_\_\_\_  
Notary Public

DIANNA L. VAUGHT  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Cole County  
My Commission Expires: June 28, 2019  
Commission Number: 15207377

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

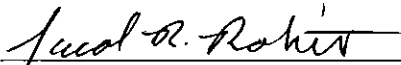
In the Matter of Union Electric Company d/b/a            )  
Ameren Missouri's Changes to Company's            )        Case No. GR-2017-0341  
Purchased Gas Adjustment (PGA) Clause            )

**AFFIDAVIT OF JACOB R. ROBINETT**

STATE OF MISSOURI        )  
  ) ss  
COUNTY OF COLE        )

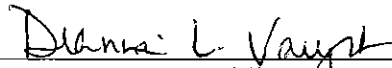
**COMES NOW** Jacob R. Robinett, and on his oath states that he is of sound mind and lawful age; that he contributed to the foregoing Staff Memorandum form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

  
\_\_\_\_\_  
Jacob R. Robinett

**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 18<sup>th</sup> day of October, 2018.

  
\_\_\_\_\_  
Notary Public

DIANNA L. VAUGHT Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: June 28, 2019 Commission Number: 15207377
---