MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. GR-2022-0351, Union Electric Company, d/b/a Ameren Missouri

FROM: Kwang Y. Choe, PhD., Economics Analyst
Jacob R. Robinett, Associate Engineer
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Procurement Analysis Department, Financial and Business Analysis Division

/s/ *David M. Sommerer* 12/12/23
Project Coordinator / Date

/s/ *David T. Buttig, PE* 12/12/23
Senior Professional Engineer/ Date

SUBJECT: Staff Recommendation in Case No. GR-2022-0351, Union Electric Company, d/b/a Ameren Missouri, 2021-2022 Actual Cost Adjustment Filing

DATE: December 12, 2023

EXECUTIVE SUMMARY

On October 14, 2022, Union Electric Company, d/b/a Ameren Missouri ("Ameren" or "Company") filed its Actual Cost Adjustment ("ACA") for the 2021-2022 period for rates to become effective on November 1, 2022. This filing revised the ACA rates based upon the Company's calculations of the ACA balance for the 2021-2022 period. The Commission approved those rates on an interim subject to refund basis, with an effective date of November 1, 2022.

The Procurement Analysis Department Staff ("Staff") of the Missouri Public Service Commission has reviewed the Company's ACA filing. Staff's analysis consisted of:

1. A review and evaluation of the Company's billed revenues and its natural gas costs for the period of September 1, 2021 to August 31, 2022;

2. A reliability analysis of the Company's estimated peak day requirements and the capacity levels to meet those requirements;

3. An examination of the Company's gas purchasing practices to determine the prudence of the Company's purchasing decisions; and

4. A hedging review to evaluate the reasonableness of the Company's hedging practices for this ACA period.

Based on Staff's review, adjustments to the Company's filed ACA balances have been recommended to reflect the actual billed revenues, less natural gas costs, for the period under review. Please see Section V. Recommendations of the report for Staff's recommendations.

Additionally, Staff recommends the Commission order the Company to respond to the Staff Recommendation Memorandum within 30 days.

STAFF'S TECHNICAL DISCUSSION AND ANALYSIS

Staff's discussion of its findings is organized into the following five sections, which include Staff's concerns and recommendations:

I. OVERVIEW

Ameren's natural gas operations are served by the following interstate pipelines: Panhandle Eastern Pipe Line Company, LP ("PEPL"), Trunkline Gas Company (upstream, or prior to, 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 an average of 110,989 customers in the Jefferson City/Columbia area. TETCO serves an average of 18,622 customers in the Cape Girardeau area. NGPL serves an average of 1,520 customers in the Marble Hill area. MoGas serves approximately 3,928 customers in the Rolla, Salem, and Owensville area. Combined, Ameren served an average of 135,059 natural gas customers this ACA period.

II. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING

<u>Reliability Analysis and Gas Supply Plan Review</u>

As a gas corporation providing natural gas service to Missouri customers, the Company is responsible for conducting reasonable long-range supply planning and the decisions resulting from that planning. One purpose of the ACA process is to examine the reliability of the Local Distribution Company's (LDC) gas supply, transportation, and storage capabilities. For this analysis, Staff reviews the LDCs 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's review for the Ameren service areas produced the following comments and concerns:

MoGas Pipeline Reserve Margins – Rolla Region

When reviewing the reserve margins for Ameren, ** [redacted] ** Staff encourages Ameren to evaluate its capacity need for the Rolla region on an annual basis.

Panhandle Eastern Pipeline Company Reserve Margins – Columbia System

When reviewing the reserve margins for Ameren, ** [redacted] ** Staff encourages Ameren to evaluate its capacity needs for the Columbia region on an annual basis based on contracted peak day supply.

III. BILLED REVENUE AND ACTUAL GAS COSTS

ACA Balances

ACA balances are cumulative such that the ending balance of one period becomes the beginning balance of the next period. The beginning ACA balance reported for the Firm sales customers did not include adjustments ordered in GR-2021-0291 (2020-2021 ACA period). The beginning ACA balance was adjusted to reflect the ACA balance ordered in Case No. GR-2021-0291, as noted below. A positive ACA balance reflects an under-recovery.

Beginning ACA Balances			
Class	**Reported**	**Corrected**	**Adjustment**
Firm Sales	$ 49,755,586.27	$ 49,753,304.66	$ (2,281.61)
Interruptible Sales	$ 525,623.17	$ 525,623.17	$ -

Billed Revenues

Staff reviewed a sample of customer bills to ensure the PGA/ACA rates charged for natural gas reflected Commission approved PGA/ACA rates. In addition, Staff recalculated monthly billed revenue, applying approved rates to volumes of natural gas consumed to determine reasonableness of revenues reported. Customer bills were then traced to revenue reports to ensure completeness of revenue reports. Staff also reviewed the reconciliation of the General Ledger (GL) balances to the ACA reported balances and billing adjustments.

As a result of testing, Staff observed a material difference between August 2022 GL revenues and the revenues reported in the ACA filing for August, with the Company noting the large difference relating to customer activity that was canceled in August but not rebilled until a later month. Additionally, Staff found that when tracing customer bills to revenue reports, several customer bills with August statement dates were not included in August 2022 revenue reports as expected.

** [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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[redacted]

[redacted] **

The table below summarizes the proposed adjustment to reported revenues of $1,015,744.18 ** [redacted]. **

Revenues			
Class	Reported	Corrected	Adjustment
Firm Sales	$ (79,498,037.79)	$ (80,513,781.97)	$ (1,015,744.18)
Interruptible Sales	$ (1,003,680.97)	$ (1,003,680.97)	$ -

Natural Gas Costs

Ameren submitted invoices for all natural gas purchases made during the review period. Staff compared each natural gas invoice to Ameren's ACA filing by pipeline. Staff also reconciled and recalculated storage balances, injections/withdrawals, and weighted average cost of gas (WACOG). On a test basis, Staff also agreed invoiced transportation and natural gas rates to gas supply contracts or other referenced rate sources, such as First of Month (FOM) pricing, pipeline tariff, etc. Based on testing, Staff does not recommend any adjustment to natural gas costs.

Imbalance/Cash Outs

Ameren's transportation tariff contains a cash out provision which reconciles a transportation customer's imbalance by requiring Ameren to either buy (shown as a billing credit) or sell (shown as a billing charge) gas to the transportation customer equal to the customer's monthly imbalance[1]. A billing credit increases gas costs (for PGA customers) whereas a billing charge reduces gas costs (for PGA customers). Staff recalculated imbalances and cash out calculations, on a test basis, and compared the recalculated charges/credits to transportation customer invoices and the ACA filing.

Imbalance and cash out test recalculations were either exact or reflected variances of different magnitudes. Further analysis showed that the PGA rate used by Ameren in the cash out calculation did not agree with the Commission approved PGA rate creating the recalculation differences noted. Under Ameren's tariff, transportation customer imbalances are cashed out monthly using a greater of the applicable firm sales Purchase Gas Adjustment (PGA) factor or the daily midpoint indexed commodity price for that date plus $0.15 per Ccf (under deliveries). Ameren stated that in month's where the PGA rate is changed, Ameren does not recognize the Commission approved effective date of the rate change for cash out purposes. Rather, Ameren recognizes the rate change the second day after the rate becomes effective to match the rate in effect relative to the gas day which Ameren asserts reflects the majority of the actual consumption period when the meter is read. For transportation customers cashed out on a monthly basis, Ameren uses a blended PGA rate

[1] "Balancing" by a transportation customer or a pool of transportation customers means that the amount of gas put into Ameren's system (receipts) is made equal to the amount used or taken out of Ameren's system (deliveries). When a transportation customer puts more or less gas into Ameren's system than it uses, this is referred to as an "imbalance."

when a new PGA rate is approved even though volumes are not measured or cashed out using daily indexes.

Ameren's position on the effective date of the PGA rate and use of gas day to determine rates to be applied to the daily imbalance is not supported by their tariff; therefore, Staff recommends Ameren use the PGA and other index rates effective as approved by the Commission or its published date or revise their tariff to align their practices with the tariff. No adjustment to the ACA balance has been made related to this observation; however, Staff will continue to monitor the impact of using blended PGA rates and the practice of delaying recognition of Commission approved PGA rates on monthly cash outs and on daily negative imbalances calculations.

Staff then traced the monthly net charge/credit to the ACA filing. Transportation customer consumption is measured on a calendar month basis, and therefore, any imbalance related to that consumption for any given month should be reflected in that month's revenues. The Company has classified measured, known volumes as unbilled leading to overstated unbilled volumes any given month. Staff recommends reclassifying the net imbalance charge totaling $73,070.32 ** [redacted] ** The table below summarizes the impact on cash outs reported as a result of the proposed adjustment.

Gas Costs - Cash Outs			
Class	**Reported**	**Corrected**	**Adjustment**
Firm Sales	$ 108,505.06	$ 40,150.41	$ (68,354.65)
Interruptible Sales	$ 7,779.48	$ 3,063.81	$ (4,715.67)

Carrying (Interest) Cost

Pursuant to Ameren's PGA Clause, interest is computed upon the average of the accumulated beginning and ending monthly over/under recoveries. Staff recalculated beginning/ending monthly balances and related carrying costs, ** [redacted]. ** The table below summarizes the impact of these adjustments on calculated carrying costs.

Carrying Costs			
Class	**Reported**	**Corrected**	**Adjustment**
Firm Sales	$ 764,883.84	$ 762,906.07	$ (1,977.77)
Interruptible Sales	$ 9,308.87	$ 9,307.94	$ (0.93)

IV. HEDGING

Staff reviewed Ameren's hedging program. The Company's goal is to hedge prices to reduce market price volatility. In particular, Ameren'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 receives regular natural gas market reports from energy and financial firms and regular market reports and assessments. Staff reviewed Ameren's hedging practices for the winter months, November 2021 through March 2022. Ameren's hedging implementation plan is to protect approximately ** [redacted] ** percent of normal winter demand requirements against market price volatility for the three Ameren systems, PEPL-UE, TETCO-UE and NGPL-UE. The price protection, including storage, comes from financial natural gas swaps for PEPL-UE. Storage and swaps were also utilized for TETCO-UE. The financial hedges were placed between August 2019 and October 2021 for the winter heating season of November 2021 through March 2022. These resulted in ** [redacted] ** percent hedged overall for Ameren, based on actual delivered volumes for the winter months, and ** [redacted] ** percent based on normal volumes for the winter months.[2]

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. ** [redacted] **

[2] 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 ** [redacted] ** and ** [redacted] ** hedged, respectively, for November 2021 through March 2022 based on actual delivered gas. PEPL-UE and TETCO-UE were ** [redacted] ** and ** [redacted] ** 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.

V. RECOMMENDATIONS

Staff recommends the Commission issue an order requiring the Company to:

1. Adjust the balances in its next ACA filing to reflect Staff's recommended ending (over)/under recovery ACA balances per the following table:

	Balance per Ameren Filing	Current Period Staff Adjustments	Staff Recommended Ending Balances 8/31/22
Firm Sales ACA	$ 34,795,464	$(1,088,358)	$ 33,707,106
Interruptible Sales ACA	$ 379,724	$ (4,717)	$ 375,007

A positive ACA balance indicates an under-recovery that must be collected from customers. A negative ACA balance indicates an over-recovery that must be returned to customers.

Adjustment Summary - Firm Sales		
Adjustment Description		**Adjustment**
Prior Year Commission Ordered Adjustment	$	(2,281.61)
Reclassified Revenues - Firm Sales	$	(1,015,744.18)
Reclassified Revenues - Cash Outs	$	(68,354.65)
Carrying Cost	$	(1,977.77)
Increase (Decrease) to Firm Sales ACA Ending Balance	$	(1,088,358.21)

Adjustment Summary - Interruptible Sales		
Adjustment Description		**Adjustment**
Reclassified Revenues - Cash Outs	$	(4,715.67)
Carrying Cost	$	(0.93)
Increase (Decrease) to Interruptible Sales ACA Ending Balance	$	(4,716.60)

Please see Section III. Billed Revenue and Actual Gas Costs for detailed discussion of the recommended adjustments.

2. Respond to all concerns, comments, and recommendations summarized below within 30 days:

   A. Staff recommends Ameren evaluate its capacity needs on an annual basis based on peak day supply needs. (Section II. Reliability Analysis and Gas Supply Planning)

   B. Staff recommends Ameren use the meter read date to determine revenue month given the variability in the time needed to complete post read activities (3-6 days per Ameren). (Section III. Billed Revenue and Actual Gas Costs)

C. Staff recommends Ameren use the PGA and other index rates effective as approved by the Commission or its published date or revise their tariff to align their cash out practices with the tariff effective date. (Section III. Billed Revenue and Actual Gas Costs)

D. Staff recommends Ameren 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 and evaluate more cost-effective financial instruments with the appropriate volumes when the market prices become relatively less volatile. (Section IV. Hedging)

E. Staff recommends Ameren continue to evaluate its current strategy ** [redacted] ** (Section IV. Hedging)

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Purchased Gas Adjustment Tariff Filing	)))	Case No. GR-2022-0351

AFFIDAVIT OF KWANG Y. CHOE, PhD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COME NOW Kwang Y. Choe, PhD, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation, in memorandum form*; and that the same is true and correct according to his best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

Kwang Y. Choe

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 6th day of December 2023.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Dianna L. Vaught
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 Purchased Gas Adjustment Tariff Filing	)))	Case No. GR-2022-0351

AFFIDAVIT OF JACOB R. ROBINETT

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COME NOW Jacob R. Robinett, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation, in memorandum form*; and that the same is true and correct according to his best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

Jacob R. Robinett

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 11th day of December 2023.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Dianna L. Vaught

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 Purchased Gas Adjustment Tariff Filing	)))	Case No. GR-2022-0351

AFFIDAVIT OF KIMBERLY K. TONES, CPA, CIA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COME NOW Kimberly K. Tones, CIA, CPA, and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Recommendation, in memorandum form*; and that the same is true and correct according to her best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

K. Kaly Tones

KIMBERLY K. TONES, CIA, 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 7th day of December 2023.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Dianna L. Vaught

Notary Public