BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri Changes to Company's Purchased Gas Adjustment (PGA) Clause.	))))	File No. GR-2015-0271

RESPONSE TO STAFF RECOMMENDATION

Pursuant to the Order Directing Filing issued by the Missouri Public Service Commission ("Commission") on December 12, 2016, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company") responds to the *Staff Recommendation Regarding Ameren Missouri's 2014-2015 Actual Cost Adjustment Filing* and its attached Memorandum, (collectively, "Staff Recommendation").[1]

I. Introduction

1. The Staff Recommendation included a request for the Commission to order the Company to establish specific ACA account balances as of August 31, 2015. Additionally, while Staff had no recommended dollar adjustments, it specifically requested, and the Commission's Order required, the Company to respond to the following sections of the Staff Recommendation:

Section II. Reliability Analysis and Gas Supply Planning;

A. Peak Design Day;

B. Reserve Margin on Texas Eastern Transmission for Cape Girardeau Service Area; and

Section III. Hedging

Ameren Missouri believes the information contained herein will be valuable to Staff and the Commission.

[1] The Staff Recommendation was also submitted to the Commission on December 12, 2016.

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Section II. Reliability Analysis and Gas Supply Planning

1. Peak Design Day

2. As noted in the Staff Recommendation, Staff reviewed Ameren Missouri'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." While Staff proposed no financial adjustments for the 2014-2015 ACA period, it did note the following comments and recommendations, which the Company has responded to below:

i. *Peak Day Forecast Demand Compared to Actual Cold Day Demand*

3. The models used for the demand study had "a tendency to under predict demand on some cold 'shoulder months' for the Cape Girardeau and Marble Hill service areas." (Staff Recommendation, p. 3). Staff recommended Ameren Missouri continue to refine its peak day demand estimates for its evaluation of:

- whether the demands predicted by its demand studies are representative of actual demands on cold days;
- look at the effect of the 'shoulder month' parameter on peak loads; and
- the capacity issues related to peak day planning.

4. Ameren Missouri has reviewed Staff's comments and observations regarding its design day peak forecast submitted in this case, and is sensitive to Staff's concerns. At the same time, the Company is confident in its forecasting models, which it continues to review and update over time. Ameren Missouri provides a design day peak demand forecast along with upper and lower prediction intervals which incorporate uncertainty around point estimation (for design day conditions). Ameren Missouri creates a physical hedge plan using both point estimation and prediction interval in order to maintain the necessary reserve margin. While the

system peak does not usually occur during shoulder months, Ameren Missouri has noted Staff's recommendation and will continue to review and consider its applicability in upcoming studies.

ii. *Specific Concerns for Rolla Area Peak Day Demand Estimates*

5. Staff expressed concern with using Rolla weather data for 30-year weather calculations given there are time frames for which data is not available. However, Staff has no issue with using the Rolla weather station for 3-year regression analysis for peak day estimates since it is an Automated Surface Observing Station ("ASOS") utilized by National Oceanic and Atmospheric Administration ("NOAA"). Staff finally noted that the Company's updated 2014 demand models seem to be more predictive of actual loads based on the instant review.

6. Ameren Missouri agrees, as Staff noted, that the utilization of weather data from the most recent three years for the Rolla station is reasonable since ASOS data is available from NOAA for this station. Staff also noted that the regression model built for Rolla appears to be more predictive of actual load. Given the veracity of the results, and since the design day calculation the Company uses does not require average weather over a 30-year period, Ameren Missouri has not been concerned by the unavailability of certain data during the referenced 30-year period.

iii. *Method for Consideration of Wind Speed*

7. Staff expressed concern regarding whether the Company could document the source of the equation it used in its demand studies, since the original source document is not available. Staff also recommended that the Company routinely review how it considers wind speed in predicting peak demands and whether there may be methods that could provide more accurate demand estimates.

8. Ameren Missouri considered Staff's concern with the definition of Effective Heating Degree Days ("EHDD") for its 2013 filing. EHDD is an interactive regression variable developed in-house that combines both wind speed and heating degree days ("HDD") to quantify the effect of wind on gas usage. In its most recent studies (2015 and 2016), the Company utilized a different variable to capture the interaction between HDD and wind speed. The Company provided academic citation for this new variable in its 2015-2016 filing (GR-2016-0236).[2] Ameren Missouri uses both of the variables in its regression models and lets the model statistics determine which one is a better fit for the data. Ameren Missouri is confident in the results this method produces.

2. Reserve Margin on Texas Eastern Transmission for Cape Girardeau Service Area

9. Staff previously expressed concerns (2013-2014 ACA review) regarding the capacity available to meet peak day demand in the Cape Girardeau service area, particularly when viewed in light of delivered storage contracts that reduce delivered capacity as storage inventory is depleted. While Staff noted that the reserve margins for the 2014-2015 review were largely positive, it wanted Ameren Missouri to continue monitoring its actual storage inventory and withdrawals for its Cape Girardeau system.

10. Ameren Missouri does not feel that the tables included at page 6 of the Staff Recommendation are representative of the Company's actual reserve margins; the Company's calculations produced a ** [redacted] ** in reserve margins for the 1/7/2015 and 1/8/2015 columns. Ameren Missouri believes there are two factors that cause its results and Staff's results to diverge: the use of ** [redacted] ** used to calculate the row, "Company UPI Peak Day less interruptible sales," and the assumption in the 2/23/2015 column

[2] Pang, Bo, "The Impact of Additional Weather Inputs on Gas Load Forecasting" (2012), Master's Theses (2009-) Paper 163. http://epublications.marquette.edu/theses_open/163

that the Company would reach a peak after the first week of February. The Company explains these in more detail below.

11. First, with regard to the peak day calculations, the issue appears to be caused by Staff's addition of ** [redacted] ** to Ameren Missouri's actual sales, or the Company's actual citygate load net end-users. Ameren Missouri is unclear as to the source of this value and why it is added to the calculation. Ameren Missouri does not add this value to its totals because it does not believe this figure actually represents "firm sales."

12. Second, Ameren Missouri questions the necessity of adding an additional peak after the third week of February, given that it is very unlikely the Company would hit a peak during that time. Ameren Missouri suspects some confusion regarding this peak timing may be due to ** [redacted] .**

Section III. Hedging

13. Staff again noted that it had no dollar adjustments related to hedging. However, Staff recommended that the Company:

- evaluate its hedging strategy in a manner that balances actual benefits to customers while balancing market price risk;
- carefully plan for the price protected volumes based on reasonably-forecasted normal requirements consistent with its hedging goal; and
- continue to assess and document the effectiveness of its hedges for the 2015-2016 period and beyond.

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14. Ameren Missouri continues to review its hedging strategies, as well as to provide detailed commodity costs and hedging costs for all its gas supply in its responses to the data requests for each annual ACA audit.

WHEREFORE, Ameren Missouri requests that the Commission accept its response to Staff's recommendations and give them due consideration in rendering any applicable decision.

Respectfully submitted,

By: */s/ Paula N. Johnson*_____

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing filing was served via e-mail on counsel for all parties of record on this 26th day of January, 2017.

/s/ Paula N. Johnson