

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

In the Matter of Union Electric Company d/b/a)
Ameren Missouri's Request for a Waiver of)
Meter Testing Requirements in Anticipation of)
Automated Metering Infrastructure Deployment)
Beginning in 2020)

File No. EE-2019-0383

STAFF RECOMMENDATION

COMES NOW the Staff of the Missouri Public Service Commission ("Staff"), by and through Staff Counsel's Office, and submits its Memorandum Recommendation that the Missouri Public Service Commission ("Commission") approve the Application of Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") for a waiver of certain electric meter testing requirements in anticipation of its deployment of electric Automated Metering Infrastructure ("AMI") beginning in 2020 for good cause shown pursuant to 20 CSR 4240-2.060(4). In support thereof, Staff states as follows:

1. On June 4, 2019, Ameren Missouri filed a Notice Of Case Filing establishing File No. EE-2019-0383, stating that on or after August 3, 2019, it would submit an application for a waiver from certain electric meter testing requirements, outlined in 4 CSR 240-10.030(28), in anticipation of its deployment of AMI beginning in 2020. On August 21, 2019, Ameren Missouri filed its Application And Request For Variance from 4 CSR 240 10.030(28).

2. On August 22, 2019, the Commission issued an Order Directing Notice, Setting Deadline For Intervention Requests, And Directing Filing Of Staff Recommendation. The Commission directed Staff to no later than September 21, 2019 file a recommendation or a request for additional time regarding the filing of its recommendation.

3. On September 20, 2019, Staff filed its response to the Commission's August 22, 2019 Order wherein Staff requested an extension of time to October 8, 2019 to file its recommendation in order to receive expedited responses to several Staff Data Requests.

4. Staff received the last of the Data Request responses on Thursday, October 3, 2019, and as a consequence Staff requested on October 7, 2019 until Tuesday, October 15, 2019, to file its recommendation. Staff counsel related that Counsel for Ameren Missouri advised that Staff counsel may indicate that Ameren Missouri had no objection to Staff's further request for additional time to file its Staff recommendation to October 15, 2019. On October 9, 2019, the Commission issued an Order Granting Motion For Further Extension Of Time to no later than October 15, 2019 for Staff to file its recommendation.

5. Ameren Missouri asserts in its Application at Paragraph 18, pages 6-7 that if it suspends sample meter testing pending the full deployment of the electric AMI metering as it proposes, it can conserve resources that can be dedicated to other purposes and avoid unnecessary and redundant testing of assets scheduled for replacement. Ameren Missouri contends such a result constitutes good cause and benefits both it and its customers. Ameren Missouri notes no other public utility will be affected by the requested variance. Staff Engineer Alan Bax notes in the last paragraph on page 4 of his Recommendation ("Appendix A") that the Ameren Missouri AMR meters being replaced are not only nearing or have exceeded the manufacturer's expected useful life, the manufacturer in the near future is no longer planning to provide support for these meters. He relates at the bottom of page 5 and the top of page 6 of his Recommendation

that the time period of the changeout of the AMR meters with the AMI meters is affected by the limitation that the expense of these meters cannot exceed six percent of the amount spent in any given year on the overall Smart Energy Plan.

6. The Staff Recommendation also suggests that the Commission note in its Order that no ratemaking determination is being addressed in this proceeding or in the Commission's Order granting Ameren Missouri's request for a variance for good cause shown and the Commission should reserve the right to consider ratemaking treatment asserted to be associated with the action, if any, in a later rate proceeding.

WHEREFORE Staff submits its Memorandum Recommendation that the Commission approve the Application of Ameren Missouri for a waiver of certain electric meter testing requirements in anticipation of its deployment of electric AMI beginning in 2020 for good cause shown pursuant to 20 CSR 4240-2.060(4).

Respectfully submitted,

/s/ Steven Dottheim

Steven Dottheim, Mo. Bar #29149
Chief Deputy Staff Counsel
(573) 751-9285 (Fax)
(573) 751-7489 (Phone)
steve.dottheim@psc.mo.gov (E-mail)
Missouri Public Service Commission
PO Box 360
Jefferson City, MO 65102

Attorney for the Staff of the
Missouri Public Service Commission

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 15th day of October, 2019.

/s/ Steven Dottheim

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. EE-2019-0383 – In the Matter of the Union Electric Company
d/b/a Ameren Missouri’s Request for a Waiver from Meter Testing
Requirements in Anticipation of Automated Metering Infrastructure
Deployment Beginning in 2020

FROM: Alan J. Bax – Industry Analysis Division / Engineering Analysis Dept.

/s/ Daniel I. Beck, PE 10-15-19
Engineering Analysis Dept. / Date

/s/ Steven Dotthem 10-15-19
Staff Counsel’s Office / Date

SUBJECT: Staff Memorandum Recommending Approval of Waiver Request

DATE: October 15, 2019

STAFF RECOMMENDATION

The Staff of the Missouri Public Service Commission (“Staff”) recommends that the Missouri Public Service Commission (“Commission”) approve the Application of the Union Electric Company, d/b/a Ameren Missouri (“Ameren Missouri”) requesting a waiver for good cause shown regarding electric meter testing requirements, as specified in 20 CSR 4240-10.030(28)¹, in anticipation of an Automated Metering Infrastructure Deployment slated to begin in July 2020. This Application contains the necessary requirements as specified in 20 CSR 4240-2.060(4). As a part of its Smart Energy Plan, Ameren Missouri indicates that it intends to replace its existing electric and gas meters, which feature automated meter reading (“AMR”) capability, with meters enabled with Automated Metering Infrastructure (“AMI”) functionality. This waiver regarding the sample testing of electric meters is being requested

¹ Effective August 28, 2019, the Commission moved from the Department of Economic Development to the Department of Commerce and Insurance. Therefore, previous Commission rules that were located in 4 CSR 240 are now transferred to 20 CSR 4240. With the exception in which this memo references actions prior to August 28, 2019, Staff has updated associated rule references accordingly.

for calendar years 2020 to 2025, as Ameren Missouri indicates it will be installing electric AMI meters beginning in July 2020 and gas AMI meters beginning in calendar year 2024 with both respective installations slated to be completed in calendar year 2025. This variance request only applies to electric meters.²

OVERVIEW

On June 4, 2019, Ameren Missouri filed a sixty-day notice, in compliance with 4 CSR 240-4.017(1), of its intent to file, on or after August 3, 2019, an Application for a waiver from certain meter testing requirements in anticipation of its deployment of AMI beginning in 2020. Ameren Missouri filed such an Application on August 21, 2019. On August 22, 2019, the Commission issued an “*Order Directing Notice, Setting Deadline for Intervention Requests, and Directing Filing of Staff Recommendation*” in which the Commission set a deadline of September 11, 2019 for any party desiring to intervene. No intervention requests have been received. In addition, the Staff was directed to file a recommendation or a request for additional time by September 21, 2019. On September 20, 2019, Staff filed a request for additional time to file its Recommendation until October 8, 2019, a request that was approved by the Commission in its “*Order Granting Motion for Extension of Time*” issued September 24, 2019. On October 7, 2019, Staff filed a request to delay the submission of its recommendation until October 15, 2019, which was granted by the Commission in an “*Order Granting Motion for Extension of Time*” issued October 9, 2019.

² In Paragraph 2, page 2 of Ameren Missouri’s Application and Request for Variance, there is a citation to 4 CSR 240-10.030(18). That citation should be a reference to 4 CSR 240-10.030(28). 4 CSR 240-10.030(18) refers to gas meters and 4 CSR 240-10.030(28) refers to electric meters. It is Staff’s understanding that Ameren Missouri will verify that the citation to 4 CSR 240-10.030(18) rather than to 4 CSR 240-10.030(28) is a typographical error. It is also Staff’s understanding that Ameren Missouri is presently planning to continue conducting sample testing of its gas meters per 20 CSR 4240 10.030(18).

Ameren Missouri is current on all assessment fees and annual report filings. Staff is not aware of any other matter before the Commission that affects or is affected by this filing.

DISCUSSION

On August 26, 1974, Union Electric Company filed an application (Case No. 18,172) that sought permission to depart from certain meter testing requirements included in Rule 32 of the Commission's General Order No. 20, which was later categorized as 4 CSR 240-10.030(28). This rule, specifically in part (C), requires utilities to test induction-type meters manufactured between 1927 and 1937 at least once every 96 months and such meters manufactured since 1937 at least once every 240 months. In an Order for Case No. 18,172, dated March 12, 1975, a copy of which was included with Ameren Missouri's current Application (Schedule 1), the Commission approved the proposed Sample Meter Testing Plan ("Testing Plan"). A standard sampling procedure published by the United States Military ("MIL" standard) was incorporated into the Testing Plan, which included organizing meters into several homogenous groups and then randomly testing 10% of the meters in each group. Upon completion of random testing, specific procedures were implemented once it was determined whether or not particular criteria regarding the level of accuracy had been met.

Subsequently, in Case No. EO-2001-521, Ameren Missouri sought to revise the Testing Plan via replacing the previously approved MIL standard sampling method with the American National Standard Institute Sampling Procedures and Tables for Inspection by Attributes and Variables. Ameren Missouri's request in Case No. EO-2001-521 was effectively a modernization of the previously approved MIL standard procedure, a request that

was approved by the Commission in its Order dated September 11, 2001. This Commission Order is also attached to Ameren Missouri's current Application (Schedule 2).

In addition, in an Order dated August 15, 2013, the Commission approved Ameren Missouri's request to add network meters (two-phase, three-wire, 120/208 volts), primarily used in apartment buildings or similar structures, to its variance from 4 CSR 240-10.030(28).

Ameren Missouri currently employs meters on its system that are equipped with AMR modules, the installation of such beginning in the latter part of the 1990s. These meters with the AMR modules provided advantages to Ameren Missouri such as remote meter reading capability, and increased recognition of metering problems and/or outages along with subsequent reduced outage times. Ameren Missouri has consistently sampled these meters per the Testing Plan since their installation, with few problems being noted with the accuracy of the meters tested over this time frame. Ameren Missouri reported that the overall average accuracy of its sampling conducted on these meters over the last four (4) calendar years in its response to Staff Data Request No. 1. The lowest calendar year average accuracy was reported as being 99.93%. With Ameren Missouri experiencing little if any significant change in average accuracy in meters tested in recent years, no appreciable change in the number of customer re-bills occurred as a consequence of meter inaccuracies.

Nonetheless, despite the apparent continuing successful operation of the AMR enabled meters, Ameren Missouri personnel noted at a September 11, 2019 meeting that these meters are nearing or have exceeded the manufacturer's expected useful life. In addition, Ameren Missouri reported that the manufacturer no longer is planning to provide support for these AMR enabled meters in the near future. Despite the additional functionality as

compared to the previously employed induction type meters, considering the intention of the manufacturer to end its support, coupled with the impetus in the industry to increase its ability to provide more complex rate structures in response to customer desires, Ameren Missouri plans to install meters equipped with AMI functionality as a part of Ameren Missouri's Smart Energy Plan.

For all customers except those who opt-out of being served by a meter equipped with AMI functionality, Ameren Missouri, beginning in July 2020 and continuing through calendar year 2025, will develop and install the Landis+Gyr Gridstream Connect platform (solution), which includes Landis+Gyr Focus Axe meters for residential and small commercial customers and Landis+Gyr S4x meters for large commercial and industrial customers, per information provided in response to Staff Data Request No. 3. This platform will provide vibrant network communication options, with grid edge devices, sensors, meters, etc. that will improve energy management control and automation. This platform should allow Ameren Missouri, for example, to propose and advance more complex rate designs/structures, improve outage detection and voltage monitoring capabilities, and assist in identifying occurrences of diversion (energy theft). Benefits to customers include enabling greater customer use of smart devices, greater data available to interact with the utility to improve energy efficiency and enhance the connection and operability of distributed energy resources ("DER"). A timetable displaying the anticipated deployment of these meters during this time frame is included in the Application. The five (5) plus year time frame proposed to install the Landis+Gyr Gridstream Connect platform is affected by the limitation that the expense of

rolling out these meters cannot exceed six percent of the amount spent in any given year on the overall Smart Energy Plan.

The Landis+Gyr AMI equipped meters to be installed will be thoroughly tested by the manufacturer prior to shipping. Moreover, either upon receipt and/or prior to installation, Ameren Missouri will verify the integrity/operation of these meters. Therefore, it would be unnecessarily duplicative to require additional meter testing during the period of time of the installation of these meters. Ameren Missouri will start sampling these meters per the Testing Plan in calendar year 2026 upon completing the installation.

Also noted by Ameren Missouri in the meeting held on September 11, 2019, was an expansion of its meter testing facility as a part of the Smart Energy Plan. This expansion will accommodate new equipment necessary in the testing of the new AMI enabled meters and also to house the AMR enabled meters being replaced.

During the time period of this requested variance, Ameren Missouri will ensure that no meter will exceed the 240 month interval for necessary testing in compliance with 20 CSR 4240-10.030(28). Ameren Missouri will also continue testing those meters utilized in its service to large customers during this period (Ameren Missouri's periodic testing groups 3 and 5). In addition, Ameren Missouri will abide by other applicable portions of 20 CSR 4240-10.030 during this time in all its service areas, such as paragraph 10.030(29), which requires the testing of meters free of charge upon customer request contingent on that a test has not been conducted within the previous twelve-month period.

CONCLUSION

Staff recommends that the Commission approve the Application of Ameren Missouri, requesting a variance in its Testing Plan³ from 20 CSR 4240-10.030(28) for electric meters for good cause shown pursuant to 20 CSR 4240-2.060(4) relating to Ameren Missouri's anticipated rollout of AMI enabled meters as a part of its Smart Energy Plan. This project includes the installation of Landis+Gyr Focus Axe meters for residential and small commercial customers and Landis+Gyr S4x meters for large commercial and industrial customers as a part of the Landis+Gyr GridStream Connect platform. Staff recommends that the variance request should only be in effect for calendar years 2020 through 2025, given the time frame identified to deploy the new metering system is July 2020 through calendar year 2025. Ameren Missouri will continue to test meters utilized in its service to large industrial customers (periodic testing groups 3 and 5) during this time period. Ameren Missouri will continue to abide to other applicable portions of 20 CSR 4240-10.030 during this time frame. Staff also suggests that the Commission note in its Order that no ratemaking determination is being addressed in this proceeding or in the Commission's Order granting the authority requested. The Commission should reserve the right to consider ratemaking treatment, if any, in a later rate proceeding.

³ The Testing Plan was approved in a Commission Order issued in Case No. EO-2001-521 on September 11, 2001.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)	
d/b/a Ameren Missouri's Request for a)	Case No. EE-2019-0383
Waiver of Meter Testing Requirements)	
in Anticipation of Automated Metering)	
Infrastructure Deployment Beginning)	
in 2020)	

AFFIDAVIT OF ALAN J. BAX

STATE OF MISSOURI)	
)	ss.
COUNTY OF COLE)	

COMES NOW ALAN J. BAX 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.

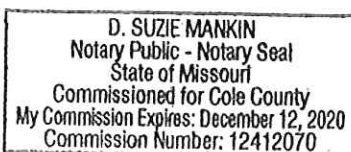
Further the Affiant sayeth not.




ALAN J. BAX

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 15th day of October 2019.




Notary Public