

MEMORANDUM

To: Missouri Public Service Commission Case File Case No. ET-2016-0246, Ameren Missouri’s Application for Approval of Tariff Authorizing Electric Vehicle Charging Station Pilot Program

From: Byron M. Murray, Regulatory Economist III
Michael Stahlman, Regulatory Economist III
John Cassidy, Utility Regulatory Auditor V

/s/ Robin Kliethermes/Sept. 28, 2016 /s/ Nathan Williams/Sept. 28, 2016
Utility Regulatory Manager/Date Staff Counsel’s Office/Date

/s/ Mark Oligschlaeger/Sept. 28, 2016
Utility Regulatory Manager/Date

Subject: Staff Recommendation regarding Ameren Missouri’s Application for Approval of Tariff Authorizing Electric Vehicle Charging Station Pilot Program

Date: September 28, 2016

Executive Summary

On August 15, 2016, Ameren Missouri filed in this case an application for the approval of a tariff authorizing a three (3) year pilot program for electric vehicle (EV) charging stations. The pilot program would make charging stations (or “islands”) available at up to six (6) locations in Ameren Missouri’s service territory - five along Interstate 70 between the City of St. Louis and Boonville and one along Highway 54 in Jefferson City. Each charging island would be equipped with a DC fast-charging station and a standard Level 2 AC charging station. Although, the stations are located in Ameren Missouri’s service territory any person owning or operating an electric vehicle can use the charging stations. Ameren Missouri proposes to establish rates based on the amount of time the car is connected to the charging station. The proposed rates do not include any provisions to encourage charging in off-peak time periods. Additionally, the proposed tariff sheets are not applicable to private charging stations in homes and businesses; Ameren Missouri has not proposed tariff sheets for customers with private charging stations.

Staff recommends that the Commission only approve Ameren Missouri’s proposed tariff sheets as they are currently filed on the condition that all revenues, expenses and investment associated with the program be recorded below-the-line in order to hold ratepayers harmless. Further, as part of its pilot program, Staff recommends Ameren Missouri be required to gather data and report annually to the Commission and interested stakeholders on the impact of electric vehicle charging stations on grid reliability.

Ratemaking Treatment for Ameren Missouri’s Proposed Electric Vehicle Charging Stations

Ameren Missouri proposes to include all revenues collected from transactions conducted at the electric vehicle charging islands in the cost of service calculation and to seek recovery of all capital investment related to installation of the charging islands, including a return of and return on investment, as well as all related operation and maintenance expense, advertising expense, and property taxes in its current and future rate cases. Ameren Missouri has timed the filing of this tariff with the intention of recovering costs associated with one charging island in the current pending Ameren Missouri rate case, Case No. ER-2016-0179 (the “2016 Rate Case”), if completed by the December 31, 2016 true-up cutoff. Ameren Missouri indicates it will seek recovery of all costs, and include all revenues associated with the other five charging islands in its next rate case.

Ameren Missouri indicates that the installation cost of each charging island is approximately \$95,000, including all related distribution lines and service facilities, and before including applicable federal and state tax credits.¹ The cost of each charging island consists of: (a) an average of \$15,000 for line extension and transformation cost; (b) an average of \$60,000 hardware cost for charging equipment and an electric panel, and (c) an average of \$20,000 cost for civil construction, hardware installation, and site commissioning. On page 15 of his direct testimony, Ameren Missouri witness, Mr. Mark J. Nealon, indicates that if all six of the charging islands are completed by December 31, 2017, the capital investment will total approximately \$570,000. Mr. Nealon estimates an approximate \$40,000 annual ongoing expense for all six stations in total pertaining to hardware operation and maintenance and for access to the vendor’s managing charging station network. Finally, Ameren Missouri anticipates marketing and education expenses of \$10,000 annually for each of the first three years after the charging islands are completed. Mr. Nealon provides no specific estimates for the annual depreciation, return on investment, and property taxes associated with the charging islands in his direct testimony.

On page 21 of Mr. Nealon’s direct testimony, he indicates that at the calendar year ending 2015, there were 2,480 electric vehicles registered in Missouri and 1,686 of those were registered within Ameren Missouri’s service territory. Ameren Missouri provides electric service to approximately 1.2 million customers. The number of electric vehicles registered within Ameren Missouri’s service territory represents approximately 0.14 percent of Ameren Missouri’s total customer count, assuming each vehicle is owned by a different customer.²

As part of Staff’s discovery in the pending Ameren Missouri 2016 rate case, Staff learned that Ameren Corporation implemented ** _____

¹ Ameren Missouri has indicated that it is eligible for a 30% federal tax credit, up to a maximum of \$30,000 for each charging island installed prior to December 31, 2016 and a state tax credit of 20% , up to a maximum of \$20,000 per year through December 31, 2017.

² 1,686 electric vehicles registered in Ameren Missouri’s service territory divided by approximately 1,200,000 ratepayers equals 0.001405.

The tariff is designed in a manner that requires a subsidy from the approximate 1.198 million customers that do not own electric vehicles and cannot benefit from this service. Those Ameren Missouri customers that drive vehicles fueled by gasoline and even natural gas would continue to pay all costs for those particular vehicle fuel distribution networks. In addition, Ameren Missouri customers that do not own any type of vehicles, for example those with low incomes, fixed incomes and the elderly, would also be required to subsidize the electric vehicle charging islands. Ameren Missouri customers that do not own electric vehicles should not be required to subsidize a program for which they receive no direct benefit, regardless of the program's size. Furthermore, if emerging technologies render this service useless prior to the end of the useful life of the charging islands, then Ameren Missouri would have stranded costs ratepayers will be required to cover. Therefore, Staff recommends that all revenues, expense and investment related to the proposed electric vehicle charging islands be recorded below-the-line.

Staff Recommendation

Staff recommends that the Commission only approve Ameren Missouri's proposed tariff sheets as they are currently filed on the condition that all revenues, expenses and investment associated with the program are recorded below-the-line in order to hold ratepayers harmless. Further, consistent with its recommendations in File No. EW-2016-0123, Staff recommends Ameren Missouri be required to gather data and report annually to the Commission and interested stakeholders on the impact of electric vehicle charging stations on grid reliability.

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

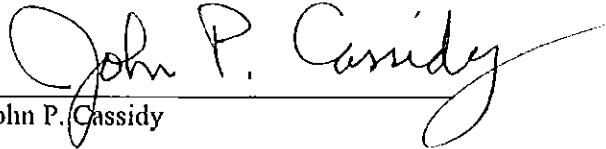
In the Matter of the Application of Union Electric)
Company d/b/a Ameren Missouri for Approval) Case No. ET-2016-0246
Of a Tariff Setting a Rate for Electric Vehicle)
Charging Stations)

AFFIDAVIT OF JOHN P. CASSIDY

STATE OF MISSOURI)
) ss
COUNTY OF ST. LOUIS)

COMES NOW John P. Cassidy and on his oath states 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.

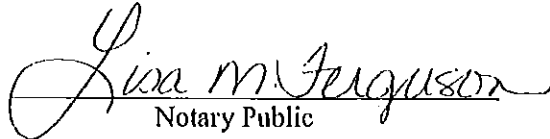
Further the Affiant sayeth not.



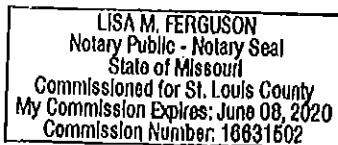
John P. Cassidy

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of St. Louis, State of Missouri, at my office in St. Louis, on this 27th day of September, 2016.



Notary Public



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

In the Matter of the Application of Union Electric)
Company d/b/a Ameren Missouri for Approval)
Of a Tariff Setting a Rate for Electric Vehicle)
Charging Stations)

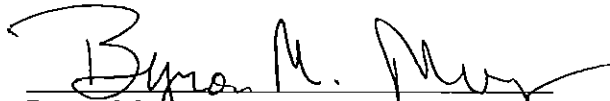
Case No. ET-2016-0246

AFFIDAVIT OF BYRON M. MURRAY

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW Byron M. Murray and on his oath states 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.

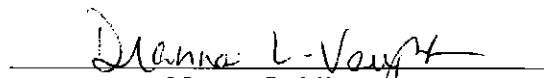
Further the Affiant sayeth not.



Byron M. Murray

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 27th day of September, 2016.



Notary Public

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