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

RESPONSE TO RECOMMENDATIONS FILED BY STAFF, SIERRA CLUB, AND THE NATURAL RESOURCES DEFENSE COUNCIL

Under authority of, and in accordance with, 4 CSR 240-2.080(13), Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "the Company") responds to recommendations filed September 28, 2016, by the Commission Staff ("Staff"), Sierra Club, and the Natural Resources Defense Council ("NRDC").

Staff's Recommendation

Staff recommends the Commission approve Ameren Missouri's proposed pilot program to install electric vehicle ("EV") charging stations along the I-70 corridor between St. Louis and Boonville, but only if the Company is required to: (1) book all revenue, expense, and investment associated with the program below-the-line and (2) gather data and report annually the impact of EV charging stations on electric grid reliability.

These recommendations appear to be driven by two concerns. First, Staff contends Ameren Missouri's request for approval of the pilot program failed to demonstrate an adequate demand for EV charging stations. And second, because projected EV charging revenue will not cover all program costs during the three-year duration of the pilot, Staff is concerned all the Company's customers – including those who do not own electric vehicles and therefore would receive no direct benefit from an EV charging network – would be required to subsidize the program through retail electric rates. As the following discussion shows, neither of Staff's concerns justifies rejecting tariffs filed to implement the proposed pilot program or requiring Ameren Missouri to operate that program on a below-the-line basis.

Staff's first concern – that no adequate evidence currently exists regarding the demand for EV charging stations along the I-70 corridor – shows Staff doesn't understand the nature and purpose of a pilot program. By definition, a "pilot program" is a small scale preliminary study conducted for the express purpose of gathering and evaluating information to predict or determine the feasibility of larger-scale projects. As testimony filed in support of its application makes clear, the Company designed the pilot program with those features clearly in mind:

> Ameren Missouri proposes to deploy an electric vehicle charging station pilot project aimed at investigating the merits of providing an EV charging service intended for use by both the long-distance driving public and the communities that are situated along long-distance driving corridors.[1]

That testimony goes on to identify the many "learning opportunities" the program represents, which include, but are not limited to, the nature and extent of charging station user behaviors, the degree to which they are satisfied with the types of charging services Ameren Missouri proposes to provide, and the impact long-distance charging stations can have on consumer adoption of EV's within the Company's service area.[2]

It is unfair for Staff to criticize Ameren Missouri for not having before-the-fact information regarding the demand for long-distance EV charging services – or regarding the demand for EV charging services more generally – when the need to gather and analyze such information is the primary reason the pilot program was proposed and is necessary. Without pilot programs like the one proposed here, the Commission and other interested parties will not have the data or experience necessary to intelligently address future demand for electric vehicles, including the EV charging and other infrastructure improvements necessary to address that demand.

Staff's second concern – the need to recover a portion of the pilot program's costs through rates Ameren Missouri's customers pay for retail electric service – is something the Company identified in its application and discussed at length in testimony filed in support of that application. But Staff's concern about subsidies is grossly overwrought, because the de minimis amount of subsidies required to fund the

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[1] Direct testimony of Mark J. Nealon, p. 4, lns. 7-11.
[2] *Id.*, p. 9, lns. 15-19.

pilot would not adversely or consequentially impact any Ameren Missouri customer, including those who do not own an electric vehicle and would not directly benefit from the charging stations the Company proposes to install.

As Ameren Missouri's application and supporting testimony make clear, no costs or investment associated with the proposed pilot program were included in the revenue requirement in the Company's pending general rate case, File No. ER-2016-0179. If the Commission approves the pilot, the application and testimony also make clear Ameren Missouri hopes to have one charging station installed and in use prior to the end of the rate case true-up period, and if it is able to achieve that objective the Company plans to request investment and depreciation costs associated with that station be included in the revenue requirement used to set rates. But costs with that single charging station – estimated to be no more than $7,000 – would have no perceptible impact on any customer's electric bill over the period rates set in File No. ER-2016-0179 are in effect. Indeed, while those rates remain in effect, most program costs will be borne by the Company's shareholders. Over that period, the subsidy provided by Ameren Missouri's shareholders will dwarf any subsidy provided by the Company's retail customers. And although Ameren Missouri will include all ongoing pilot program costs in the revenue requirement used to set rates in the next rate case, those rates would not be effective until well past the midpoint of the proposed three-year pilot program.

But even if all costs associated with the pilot were included in rates from the date the Commission first approves that program, the effect on retail rates of all those costs would still be so small that no customer would be adversely or consequentially affected. In response to a Staff data request in this case, Ameren Missouri disclosed its Utility Cost Test model estimates if all net costs (i.e. expenses, taxes, depreciation, and return on investment less revenue) associated with the pilot were included in the Company's revenue requirement, the added amount a customer would be required to pay to support the program would be less than $0.40 over the program's entire three-year term. That averages out to a subsidy of approximately one penny per customer per month over the three-year study period of the proposed pilot. A subsidy that small would not warrant rejection of Ameren Missouri's proposal, as Staff recommends.

Staff's concern about subsidies also ignores the fact not all programs the Company currently offers or has offered in the past – such as programs to support low-income customers – benefit all retail customers or fully recover their costs through rates charged for those programs. If the need for subsidies did not disqualify those programs, why should a different standard apply to the proposed EV charging pilot project?

Recommendations of NRDC and Sierra Club

Recommendations filed by NRDC and Sierra Club show both those parties recognize the numerous benefits Ameren Missouri's proposed pilot program. Both parties cite the many societal benefits that could be achieved by encouraging and facilitating increased usage of electric vehicles – such as reduced dependence on oil, improved air quality through reduced carbon emissions, and contributions toward achieving federal air quality standards – and acknowledge how critical development of a vehicle charging infrastructure is to achieving the objective of increased EV usage. NRDC and Sierra Club also recognize increased use of electric vehicles promises other longer-term benefits to all the Company's customers, and how developing a charging infrastructure is a critical incentive to increasing demand. They also acknowledge electric utilities, like Ameren Missouri, are uniquely positioned to accelerate what NRDC refers to as "the vehicle electrification process,"[3] which is why both NRDC and Sierra Club support implementing pilot programs, such as the one under consideration in this case, that would allow electric utilities to play a leadership role in developing an EV charging infrastructure. Both parties also recognize pilot programs like the one proposed here do not always cover their costs, and they therefore support Ameren Missouri's plan to recover some costs related to the long-distance EV charging network through rates paid by all the Company's customers.

But the support NRDC and Sierra Club express for the pilot program is not unqualified, and each recommends Ameren Missouri consider rate structure changes to more equitably deal with all potential

[3] *Recommendations of Natural Resources Defense Council*, p. 2.

users of the EV charging stations. Specifically, both parties suggest the Company modify its proposed time-based rate structure, which would charge system users a flat rate based on the time a user's vehicle is attached to the charging station, with a rate based on the amount of energy a charging station supplies an electric vehicle. They argue such a rate structure would be more equitable because it recognizes some vehicles are capable of charging more quickly than others, even though the amount of energy supplied by a charging station is the same. NRDC and Sierra Club also recommend Ameren Missouri consider marketing and implementing full scale time-of-use rates, although both parties appear to acknowledge this as a longer-term objective and not one limited to the EV charging pilot under consideration in this case.

The Company believes NRDC's and Sierra Club's recommendations have merit, especially insofar as they recognize not all electric vehicles are capable of charging at the same rate. To adjust for such differences, Ameren Missouri is willing to revise the flat rate, time-based rate structure it originally proposed in favor of a per/kWh rate that would apply to users of the slower Level 2-AC (Standard) charge plugs available at each proposed charging station. The Company also would revise the rate for the Level 2-DC (Fast) charger, also available at each charging station, from a flat rate of $2.50 per charge to a per minute rate of $0.17. These two revisions should eliminate the perceived inequity in Ameren Missouri's original rate design, which both NRDC and Sierra Club believe did not adequately account for slower charging times required by some electric vehicles. Revised exemplar tariff sheets reflecting those revisions are attached to this response as Attachment A.

If it agrees changes to the pilot program tariff recommended by NRDC and Sierra Club are necessary or desirable, the Commission should reject the tariff sheets Ameren Missouri filed August 15, 2016, and order the Company to file new tariff sheets that reflect changes shown on Attachment A. But any order rejecting the originally filed tariff sheets should provide an effective date for the new tariff sheets that is no later than October 15, 2016. That date provides Ameren Missouri the best opportunity to install one of the proposed charging stations before year's end, which would be necessary to allow the Company to qualify for available federal tax credits.

Conclusion

Ameren Missouri's proposal to build and operate a network of five EV charging stations along the I-70 corridor between St. Louis and Boonville, with a sixth station in Jefferson City, is exactly what a pilot program is supposed to be – a small scale preliminary study – and would accomplish what a pilot program is supposed to – collect and evaluate information necessary to predict or determine the feasibility of larger-scale projects. Information from the program would be invaluable in assisting the Commission and other interested parties in promoting electric vehicles and developing the charging infrastructure those vehicles require. While not all program costs would be recovered through rates for EV charging services, any subsidy Ameren Missouri's customers would be required to provide to support the program would be both de minimus and inconsequential, and concerns about subsidies must be weighed against the pilot program's potential benefits. Those benefits include more and better information about electric vehicles and the role they will play in Missouri's energy future, cleaner air through reduced emissions from gasoline-powered vehicles, and advantages electric vehicles can play in achieving federal and state renewable energy objectives. Increased usage of electric vehicles also provides an opportunity for the Company to increase energy sales, which would benefit all customers in the future, regardless of whether they own an electric vehicle.

The Commission should reject Staff's recommendation to allow Ameren Missouri to implement the proposed pilot program, but only if all revenues, expenses, and investment associated with the program are booked below-the-line. Although the Company's proposal would require its shareholders to bear most of the program's costs during the period rates set in File No. ER-2016-0179 are in effect, Ameren Missouri is not willing to move forward with the pilot on the basis Staff proposes.

In at least two prior cases – File Nos. ER-2014-0370 and EW-2016-0123 – the Commission or Staff has expressed agreement with the need to take steps to create a network to serve increasing numbers of electric vehicles. But both have cautioned those steps must be taken in a manner that keeps costs low and that collects and regularly reports useful data to the Commission and interested stakeholders. Ameren Missouri has taken those concerns to heart in designing the proposed pilot program. The limited size of the program ensures costs will be minimal, and the proposed tariff specifically obligates the Company to annually report revenue derived, costs incurred, and benefits produced by the program. These and other data mined from the pilot should prove helpful to the Commission and other interested parties as they address the infrastructure challenges increased use of electric vehicles present.

As the Company has noted several times in this case, time is of the essence. Federal tax credits, which would reduce the net amount of investment in charging stations, are due to expire at the end of 2016. Undue delay in approving the pilot also would jeopardize Ameren Missouri's ability to install at least one charging station prior to the end of the true-up period in the Company's pending rate case. For these reasons, and because Staff has offered no compelling justification for rejecting the pilot program or requiring it be offered on a below-the-line basis, the Commission should approve Ameren Missouri's application with the changes proposed in this response, and do so by mid-October, if possible, but in no case later than November 1, 2016.

Respectfully submitted,

By: /s/ L. Russell Mitten

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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 4th day of October, 2016.

/s/ L. Russell Mitten

UNION ELECTRIC COMPANY **ELECTRIC SERVICE** **ATTACHMENT A**

MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 166

CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 166

APPLYING TO MISSOURI SERVICE AREA

ELECTRIC VEHICLE CHARGING PILOT PROGRAM

PURPOSE

The purpose of the Electric Vehicle Charging Pilot Program (Program) is to offer charging service to owners or operators of electric vehicles within portions of the Company's Missouri service territory.

PROGRAM DESCRIPTION

Company will make charging facilities available at up to six (6) locations roughly adjacent to Interstate 70 and Highway 54 in Company's certificated service territory in order to establish a long-distance corridor for electric vehicles to operate.
~~. Customers will purchase charging service in time blocks to suit their needs.~~

AVAILABILITY

Charging service under this Program is available to any owner or operator of an electric vehicle that can be charged from a Level 2-AC (Standard) or Level 2-DC (Fast) charger. Customers will complete their payment transaction (via credit card payment, eligible RFID card, or promotional code) through a third party contracted by Company.

DEFINITIONS

Level 2-AC (Standard) Charger - A charging facility designed to provide charging at a rate of up to 7.4 kW.

Level 2-DC (Fast) Charger - A charging facility designed to provide charging at a rate of up to 50 kW.

Total Connection Time~~-~~- The length of time, in minutes, between when a customer fully seats the charger plug into the charging port of the electric vehicle before fueling begins to the time when the customer disengages the charger plug from the charging port of electric vehicle after fueling has stopped~~, rounded up to the next full fifteen (15) minute increment~~. All charging time and non-charging time within the Total Connection Time is billed at the same rate.

CHARGING SERVICE RATES

~~Total Connection Time Charge (per 15 minutes):~~

	Rate(1)
Level 2-AC (Standard)	$ 0.~~30~~20/kWh
Level 2-DC (Fast)	$ 0~~2~~.~~50~~17/minute (2)

(1) Prices will be clearly posted prior to customer initiating charging and accepted by customer prior to charging commencing.~~.~~
(2) Based on Total Connection Time

TAX ADJUSTMENT

Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

DATE OF ISSUE August 15, 2016 DATE EFFECTIVE October 15, 2016

ISSUED BY Michael Moehn President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

ELECTRIC VEHICLE CHARGING PILOT PROGRAM (Cont.'d)

BILLING

All charges to the customer will be completed at the time of sale and participant's relationship to Company will end when the payment of transaction has been completed.

TERM OF PROGRAM

The term of the Program will be three (3) years from the initial effective date of this tariff. However, this tariff shall immediately become void, and the Company shall have no further obligations or liabilities hereunder, if any term or terms of this Program are determined to be discriminatory or otherwise unlawful by a court of competent jurisdiction.

ANNUAL REPORT

Within sixty (60) days of each anniversary of the implementation date of the Program, the Company will submit a written report detailing usage at each charging facility; revenue generated from vehicle charging, in total and at each charging facility; costs of the Program, in total and for each charging facility; impact on customer bills; and any ancillary benefits or costs of the Program.

GENERAL RULES AND REGULATIONS

Company's Mo.P.S.C. Schedule No. 6 General Rules & Regulations pertaining to providing service and billing a customer for service as well as deposit practices do not apply to this tariff.