

rate class and rate design are appropriate, and (iii) setting fair and reasonable rates for electricity the utility sells its retail customers, including electricity provided to vehicle charging stations.

3. *Are Investor Owned Utilities (“IOU”) the only entities that can provide electricity to electric vehicles via a charging station? What other entity(ies) can provide electricity to electric vehicles via charging stations? Is the answer dependent on whether the entity(ies) charges for the electricity? Please provide the legal justification for your response.*

a. Is there a legal restriction which would prevent any company other than the local IOU electric company from providing electricity to an EV charging station?

An IOU holding a certificate from the Commission has the exclusive right to provide retail electric service to customers within the IOU’s certificated service area. Whether and under what circumstances an entity other than a certificated IOU could provide electricity to an electric vehicle charging station is a question that is difficult, if not impossible, to answer in the abstract because the answer depends on facts that likely will vary from case to case.

b. Is the local IOU electric company obligated by law to provide electricity to EV charging stations?

An IOU holding a certificate from the Commission must serve all customers within the utility’s service area without unreasonable discrimination. *State ex rel. Federal Reserve Bank of Kansas City v. Public Service Commission*, 191 S.W.2d 307, 313 (Mo. App. 1945). That obligation includes electric vehicle charging stations.

c. What impact do the responses provided above in sub-bullets a and b have on EV charging stations that are installed and operated as of this date?

The responses to sub-bullets a and b above would be the same for electric vehicle charging stations placed in service before and after the date of this response.

4. *Is each charging station a distinct electric utility?*

A charging station is not a “public utility” as that phrase is defined in § 386.020(43), RSMo., and as that definition has been interpreted by Missouri courts. *See State ex rel. Buchanan County Power Transmission Company v. Public Service Commission*, 9 S.W.2d 589 (Mo. 1928); *State ex rel. M. O. Danciger & Company v. Public Service Commission*, 205 S.W. 36 (Mo. 1918); *State ex rel. Buffum Telephone Company v. Public Service Commission*, 199 S.W. 962 (Mo. 1917); and *State ex rel. Cirese v. Public Service Commission*, 178 S.W.2d 788 (Mo. App. 1944).

5. *How will there be accessibility to electric vehicles for low-income ratepayers? At what point in time would accessibility to electric vehicles for low-income ratepayers occur?*

Questions regarding whether, when, and under what circumstances low-income ratepayers – or any other group or class of ratepayers – have access to electric vehicles are outside the Commission’s jurisdiction. Electric vehicles are analogous to appliances, computers, or any other device that uses electricity produced and sold by electric utilities. The Commission has authority to prescribe terms of service and rates for electricity, but cannot regulate terms of sale, prices, or availability of devices that use electricity. A company that sells or otherwise provides electric vehicles to the public would be no more subject to Commission regulation than are the sellers of any other device that uses electricity.

6. *How many EV charging stations are there in your company’s service territory?*

It is difficult to accurately answer this question because of conflicting information available on the internet. For example, according to Chargepoint’s website there are 285 electric vehicle charging stations in Missouri, but according to the United States Department of Energy’s (“DOE”) website there are 158 charging stations with a total of 527 outlets available. Ameren Missouri cannot attest to the accuracy of the data from either website, but knows information on the DOE website is incorrect regarding the number of charging stations the Company operates.

The DOE's website reports Ameren Missouri has three charging stations, but the correct number is ten, although none of these charging stations is available to the general public.

a. Who owns the charging stations(s)?

Ownership varies from charging station to charging station. Generally speaking, the stations identified on the Chargepoint and DOE websites are owned by automobile dealerships, private companies (for use by customers or for workplace charging), and non-profit companies and organizations. Of the stations available to the public, some assess a fee for charging services and others provide the service for no fee.

b. Who operates the charging station(s)?

Who operates the stations also varies; some charging stations are owner-operated while others are operated by third parties under contracts with the stations' owner. In addition, Tesla Motors has several proprietary charging stations available only to vehicles it manufactures.

c. Does the EV owner pay for the electricity used to charge the vehicle?

As noted in responses to previous questions, at some charging stations EV owners pay for charging services while at other stations those services are provided at no cost. But all owner/operators of electric vehicle charging stations pay the serving utility for electricity used to provide charging services.

7. What are other states doing to fund the development and installation of EV charging stations? Is cost recovery allowed through a utility's rates? Please include a reference to any legal authority that explicitly authorizes the method of funding or recovery.

Although Ameren Missouri has not conducted a comprehensive search of regulatory commission activities related to electric vehicle charging, the Company is aware of the actions and proceedings described below. Ameren Missouri believes these are representative of the types

of investigations and activities undertaken by state utility regulatory commissions in jurisdictions across the United States.

OREGON: The Oregon Public Utility Commission opened a docket “to address general matters related to the emergence and development of the EV [electric vehicle] charging market and industry, including the role of electric utilities with regard to owning and operating EV service equipment (EVSE) and acting as EV service providers (EVSP).” *In the Matter of the Public Utility Commission of Oregon Investigation of Matters Related to Electric Vehicle Charging*, 295 P.U.R.4th 7 (January 19, 2012). The Oregon Commission concluded electric utilities could invest in EV charging stations and offer charging services as a non-regulated, non-rate base venture. However, if a utility sought to operate EV charging as part of its above-the-line utility business, recovery of costs would be based on traditional regulatory measures, including service quality, fairness and reasonableness of rates, and whether the service provides a net benefit to all the utility’s customers. *Id.* pp. 19-21.¹

MASSACHUSETTS: In late 2014, the Massachusetts Department of Transportation and Energy opened an investigation into electric vehicles and electric vehicle charging. At the conclusion of its investigation, the Massachusetts Commission determined: (1) regulated distribution utilities would be allowed to own and operate vehicle charging stations for use by their fleet vehicles and employees, and all costs associated with those charging stations would be recoverable through rates; (2) electric utilities would be encouraged to explore a range of options for vehicle charging as part of their research and development budgets, with all reasonable costs of those investigatory activities to be recovered through rates; and (3) electric distribution

¹ ORS §757.005(b)(G) excludes from the definition of “public utility” any company or individual that provides gas, electricity, or other alternative fuels for motor vehicles and does not provide furnish any utility service as defined by statute. Therefore, under Oregon law a public utility providing vehicle charging services is subject to regulation but a non-utility providing the same services is not.

utilities could apply for authorization to offer vehicle charging as an above-the-line utility service, but costs could be recovered through retail rates only if the utility could demonstrate the service is in the public interest, is meeting a need not being met by non-utility providers, and utility participation is not hindering development of a competitive vehicle charging market. *Investigation by the Department of Public Utilities Upon Its Own Motion Into Electric Vehicles and Electric Vehicle Charging*, 315 P.U.R.4th 139 (August 4, 2015).

UTAH: The Utah Public Service Commission has authorized at least one electric utility to change its tariff to specify electric vehicle charging service is not considered resale of electricity.² *In the Matter of Rocky Mountain Power's Proposed Changes to Regulation No. 4 "Supply and Use of Service" to Add Language Clarifying that Electric Vehicle (EV) Battery Charging Service is Not Considered Resale of Electricity*, Docket No. 13-035-T12, 2013 Utah PUC LEXIS 131 (October 1 2013).

MARYLAND: In 2013, the Maryland Public Service Commission authorized Baltimore Gas and Electric Company to implement a pilot program to allow customers to charge their own electric vehicles during non-peak hours. But the Maryland Commission split on whether the costs of the program could or should be borne by the utility's customers, with the majority concluding a bill passed by the state legislature in 2011 did not intend any costs of the pilot program would be borne by the company's retail electric customers.³

HAWAII: In response to legislation passed in 2009 making it state policy to promote use of electric vehicles, the Hawaii Public Utilities Commission approved tariffs for each of the

² The Michigan Public Service Commission authorized DTE Electric Company to make a similar change in its tariff. *In the Matter of the Application of DTE Electric Company for Amendment of Its Standard Contract Rider No. 4 Resale of Service*, Case No. U-17204, 2013 Mich. PSC LEXIS 69 (March 15 2013).

³ The legislation at issue – SB 0179, which passed in 2011 – directed the Maryland Commission to establish a pilot program for customers to recharge electric vehicles during off-peak hours. The commission's majority concluded because the bill did not specifically provide for utilities to recover program costs through rates the legislature did not intend those costs to be borne by utility customers.

state's electric IOUs implementing five-year pilot programs to install and operate electric vehicle charging stations. *In the Matter of the Application of Hawaiian Electric Company, Inc., Hawaii Electric Light Company, and Maui Electric Company, Ltd., for Approval to Establish Schedule EV-F – Commercial Public Electric Vehicle Charging Facility Pilot, and Schedule EV-U – Commercial Public Electric Vehicle Charging Service Pilot*, 306 P.U.R.^{4th} 236 (July 1, 2013). Although the order approving the pilot programs is silent on issues of cost recovery, it does acknowledge the utilities' plans to offer their programs as tariffed utility services. This implies each utility expects to at least seek recovery of the costs of its pilot program from retail electric customers.⁴

VERMONT: In April 2015, the Vermont Public Service Board considered Green Mountain Power Corporation's ("GMP") application for a grant from the state's Community Energy and Efficiency Development Fund for an electric vehicle charging project. *Petition of Green Mountain Power Corporation for Approval of Its Community Energy & Efficiency Development Fund 2015 Annual Plan*, Docket No. 8395, 2015 Vt. PUC LEXIS 203 (April 23, 2015). GMP proposed to use the grant to purchase and install charging stations in designated municipal locations; however, the municipalities would own and operate the stations, and the utility's involvement would be limited to providing power for use by the charging stations and collecting and evaluating program data. The Vermont Board's final order noted municipal ownership made it easier to evaluate GMP's request because issues of ratepayer equity would be avoided. The Board further noted the requested grant would cover capital costs of the charging stations, and the municipalities would pay for all electricity those stations used. Nevertheless, the

⁴ HRS §269-1-2(L) exempts from the definition of "public utility" "[a]ny person who owns, controls, operates, or manages plants or facilities primarily used to charge or discharge a vehicle battery that provides power for vehicle propulsion." Because the plants or facilities owned and operated by the electric IOUs are not primarily used for vehicle charging, the statutory exemption implies vehicle charging offered by IOUs is considered to be a utility service.

Board rejected GMP's proposal on grounds the application lacked information necessary for a complete evaluation of the utility's proposal.

ARIZONA: The Arizona Corporation Commission directed Arizona Public Service Company ("APS") to develop an electric vehicle readiness demonstration project. In response to that order, APS proposed a limited (total cost \$1.5 million) three-year program consisting of two components: a time-of-use rate to incent residential customers to charge electric vehicles at home during off-peak hours, and a public vehicle charging offering that would allow charging on a point-of-sale basis. *In the Matter of Arizona Public Service Company's Application for Approval of Proposed Electric Vehicle Readiness Demonstration Project*, Docket No. E-0345A-10-0123, 292 P.U.R.^{4th} 146 (Decision No. 72582, September 11, 2011). Despite the fact APS designed its point-of-sale program to self fund all costs incurred to install and maintain the public charging stations, the Arizona Commission determined some costs might still be recorded as normal operating costs, which the utility would seek to recover through retail rates. To avoid that possibility, the commission directed APS to seek periodic adjustment of its point-of-sale rate so revenues derived from public charging fully covered all program costs.

INDIANA: In its order in *Verified Petition of Indianapolis Power & Light Company for Approval of Alternative Regulation Plan for Extension of Distribution and Service Lines, Installation of Facilities and Accounting and Ratemaking of Costs Thereof for Purpose of the City of Indianapolis' and BlueIndy's Electric Vehicle Sharing Program*, Cause No. 44478, 319 P.U.R.^{4th} 125 (February 11, 2015), the Indiana Utility Regulatory Commission rejected a proposal to grant an electric utility full recovery of all electricity and infrastructure costs incurred to support a private electric vehicle sharing venture within the City of Indianapolis. The BlueIndy Project was a business venture undertaken by a French company, Bolloré, to make

available a fleet of electric vehicles for use by the public. To provide electricity and infrastructure necessary for the project, Indianapolis Power & Light Company proposed to extend distribution and service lines and install approximately 200 new charging locations, each of which would include BlueIndy-owned vehicle chargers and service kiosks. Because it concluded required line extensions could provide benefits to all the utility's customers, the Indiana Commission allowed potential recovery of those costs through retail rates. But it rejected recovery of any other costs related to the project on grounds the claimed benefits to the utility's customers were both too limited and too speculative.

IDAHO: In June 2015, the Idaho Public Utilities Commission approved tariff changes proposed by three electric IOUs to remove limitations that would have prohibited customers from using electricity for commercial vehicle charging stations. *In the Matter of Idaho Power Company, Avista Corporation, and PacifiCorp d/b/a Rocky Mountain Power's Tariff Revisions to Implement Amendment to Idaho Code §61-119I*, Case No. GNR-E-15-02, 2015 Ida. PUC LEXIS 90. The changes were necessary to bring each utility's tariff into compliance with legislation enacted in 2015, which specifically excluded from the statutory definition of "electrical corporation" any company purchasing electricity from a regulated utility to charge electric vehicle batteries.⁵

CALIFORNIA: The California Public Utilities Commission requires regulated electric utilities in that state to provide electric service to vehicle charging stations because (1) California is committed to expanding the use of electric vehicles and to supporting that expansion, and (2) non-utility suppliers of charging services have not built a sufficient number of charging stations to support those state objectives. The California Commission has authorized the state's electric utilities to solicit customers willing to be a charging station host at the customer's location. The

⁵ Idaho Code §61-119(2).

utilities then extend facilities necessary to serve the hosted stations and are allowed to recover through retail rates the cost of those facilities.

8. *Based on the current generation mix of your utility, will carbon emissions, NO_x or SO_x increase or decrease if electric vehicle adoption increases? Please explain.*

The Electric Power Research Institute and the Natural Resources Defense Council recently released their joint analysis of the effects of electric vehicles on greenhouse gas, CO₂, SO₂, and NO_x emissions. That analysis found widespread adoption of electric transportation, including electrification in the off-road vehicle sector, could lead to substantial reductions in emissions, which could improve air quality. More specifically, the study analyzed emissions through 2050 and air quality impacts through 2030, and predicts increased use of light duty electric vehicles could significantly reduce emissions compared to current levels. A copy of the EPRI/NRDC analysis can be found at <http://epri.co/3002006881>.

9. *Who should pay for the equipment, installation and maintenance for the EV charging station network?*

This question cannot be answered in the abstract. The answer will vary from case to case based on facts such as the identity of the entity offering charging service, the circumstances under which the service is provided, and whether the service is offered as a public utility service.

10. *How are other countries promoting public use of EV charging stations?*

Ameren Missouri has no information regarding how other countries promote or regulate EV charging stations.

QUESTIONS FOR NATURAL GAS UTILITIES

1. *Does your utility own or operate compressed natural gas (CNG) facilities for vehicular use? If so, please state the number of CNG facilities, who can access them (e.g. open to the public), and if they are included as a regulated activity.*

Ameren Missouri does not own or operate any CNG facilities.

- 2. Is your Company aware of other entities that own or operate CNG facilities in your service territory? If so, please provide an estimate of the number of CNG facilities and who can access them (e.g. open to the public).**

Ameren Missouri is aware of only one CNG facility within the Company's gas service territory. The City of Columbia and Clean Energy jointly constructed a CNG facility just north of Interstate 70. The city owns and operates CNG-fueled vehicles, and some other companies in the area also have CNG-fueled vehicles as part of their fleets. The Columbia facility is open to the public.

- 3. Please state the Company's current assessment of the CNG vehicle market, including potential and likely future growth.**

Ameren Missouri continues to receive inquiries regarding the location and capacities of our gas distribution facilities at intersections along Interstates 70 and 44 and State Highways 54 and 63, although none of those inquiries has advanced beyond the stage of exchanging preliminary information. The Company has not prepared any studies assessing the potential current and future markets for CNG vehicles within its service area.

- 4. Is the Company aware of actions that other states have done to promote the adoption of CNG vehicles? If so, please describe.**

Ameren Missouri has not investigated actions taken by other states to promote adoption of CNG vehicles.

- 5. Is the Company aware of any state policies that promote or inhibit the further adoption of CNG vehicles in Missouri? If so, please describe.**

The Company has not investigated any state policies that either promote or inhibit further adoption of CNG vehicles in Missouri.

Respectfully submitted,

By: /s/ L. Russell Mitten_____

Wendy Tatro, #60261
Director – Assistant General Counsel
Ameren Missouri
1901 Chouteau Ave.
P. O. Box 149 (MC 1310)
St. Louis, MO 63166
(314) 554-3484 (telephone)
(314) 554-4014 (facsimile)
AmerenMOService@ameren.com

L. Russell Mitten, #27881
Brydon, Swearingen & England, P.C.
312 East Capitol Avenue
P.O. Box 456
Jefferson City, MO 65102
(573) 635-7166 (telephone)
(573) 634-7431 (facsimile)
rmitten@brydonlaw.com

**ATTORNEYS FOR UNION ELECTRIC
COMPANY d/b/a AMEREN MISSOURI**