

**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 Efficient Electrification)	Case No. ET-2018-0132
Program)	

CHARGEPOINT INC.'S INITIAL BRIEF

A. Introduction

On February 22, 2018, Union Electric Company d/b/a Ameren Missouri (“Ameren”) filed at the Commission an application and accompanying tariff sheets seeking approval of two new tariffed programs collectively referred to as the “Charge Ahead” program. The application proposes a rebate program for electric vehicle (“EV”) charging stations in the Company’s service territory. The rebate incentives proposed would be offered to offset the project costs for multifamily, workplace, public around town, and long-distance corridor market segments. The program offerings are designed to incent installation of both Level 2 (“L2”) and DC fast charging (“DCFC”) infrastructure. On December 3-4, 2018 the Commission held a hearing on the matter, and on December 4, 2018 the Commission heard testimony from ChargePoint’s witness, Mr. James Ellis.

As a leading provider of charging infrastructure in the nation, ChargePoint, Inc. (“ChargePoint”) is well aware of the potential risks and benefits associated with utility investments in charging infrastructure. As such, ChargePoint sought and obtained intervention in this matter to aid in the Commission’s evaluation of the proposed programs as a technology developer and competitive market participant. The testimony at hearing confirmed that many parties consider

broader electrification of transportation as a positive development and beneficial point of public policy that should be encouraged. The Commission's decision on this matter will directly affect the trajectory of the EV market in Missouri, and further clarify what role utilities may play in accelerating the deployment of EV charging infrastructure in the State.

B. ChargePoint

1. ChargePoint business model

ChargePoint, which is headquartered in Campbell, California, engineers, manufactures, and sells the equipment and network services necessary for EV charging station owners to effectively provide charging services to drivers who visit their properties. The site host, as the owner and operator of the charging station,¹ is free to set the price to EV drivers who use the charging station or the site host may offer free charging. ChargePoint does not set the pricing to drivers at any station. ChargePoint sells the site host a subscription service to manage its charging infrastructure using cloud-based software tools. ChargePoint also provides services to drivers, free of charge, which allow them to easily find and access the EV infrastructure provided by station owners through a mobile app, in-vehicle navigation and a website.²

ChargePoint sells L2 and DCFC products and services. For station owners, ChargePoint provides subscriptions to its cloud-based platform which allows the owner to manage EV charging operations, including online management tools for data analysis, payment processing, load management, and access control. Stations are connected to the ChargePoint network over a secure, cellular data network allowing station owners to manage all their charging operations from a single dashboard. ChargePoint also offers a comprehensive set of support services for both EV drivers

¹ In most cases, ChargePoint does not own the hardware. The site host most commonly is the owner of the equipment, though there are exceptions where ChargePoint, a utility or another third party may own the equipment instead of the site host.

² Exhibit 650, Ellis Rebuttal at pages 4-5.

and station hosts, including: hotline for drivers, the industry’s first Parts and On-Site Labor warranty, site qualification, installation and validation services. For drivers, ChargePoint provides a single mobile and web application for all aspects of their public, workplace, and home EV charging. ChargePoint drivers have access to real time information, payment and support services through the information available on the screen of the charging station, in their mobile app, via email and text notifications, or on the ChargePoint website.³

ChargePoint has more than 1,300 publicly available workplace, commercial, and private residential charging spots in the State of Missouri. Its customers are workplaces, governments, hotels, colleges and universities, hospitals, utilities, parking garages, airports, multifamily housing, auto dealerships and other businesses.⁴

C. Issues⁵

1. Should the Commission approve, reject, or modify Ameren Missouri’s ChargeAhead – Electric Vehicles program?

a. Has Ameren Missouri provided sufficient evidence that there is a need for the program?

There is a strong record supporting the contention that in the coming years Missouri will experience rapid growth in electric vehicle (“EV”) adoption, which will require a commensurate buildout of charging infrastructure. In his surrebuttal testimony, ChargePoint’s witness, James Ellis, articulated these needs in responding to rebuttal testimony from Staff and Office of Public Counsel (“OPC”):

For example, according to National Renewable Energy Laboratory, by 2030, Missouri is projected to have roughly 201,000 electric vehicles in the State. If

³ Exhibit 650, Ellis Rebuttal, page 5-6.

⁴ Exhibit 650, Ellis Rebuttal, pages 4, 7.

⁵ List of Issues, filed with the Commission on November 20, 2018. ChargePoint has limited its argument in this brief to those issues most pertinent to its business activities.

achieved, that level of EV adoption would be supported through deployments of an estimated 5,900 workplace charging ports, 4,100 public charging ports, and 370 DC fast charging ports. While studies and models may show a range of potential infrastructure needs, clearly more infrastructure is needed to accommodate the forecasted growth of electric vehicles. Supporting EV charging infrastructure buildouts through utility investment will help to achieve greater EV adoption near-term.⁶

Mr. Ellis also noted how utilities across the country are pursuing and gaining Commission approval for similar program designs to Charge Ahead – Electric Vehicles in order to support local EV adoption:

Nationally, utilities in many jurisdictions have supported the adoption of electric vehicles through programs that enable the buildout of charging infrastructure. Those programs can significantly lower barriers to EV charging station deployment and accelerate EV charging markets overall. More importantly, utility role in charging infrastructure can foster and support a long term, scalable competitive market for charging equipment and networks.⁷

Throughout the hearing, many witnesses testified to the extent of charging needs in the state, locations for deployment, technologies required to meet those needs, and the potential of growing EV charging loads. The consensus among several witnesses was that many factors have an impact on the scale and extent of EV adoption locally.⁸ Mr. Ellis responded to Chairman Silvey’s questions about the factors at play that will drive EV adoption, and clearly pointed to the significance of EV charging as a primary factor:

Q [Chairman Silvey]. Okay. I think one of the contentions that we've heard to this point is that it will necessarily lead to an increase or it's expected to lead to an increase in the overall number of EVs on the road. Can you provide any information from your experience in other markets on what kind of an impact it's had on total EV adoption in those markets?

A [James Ellis]. So EV adoption and electric vehicle infrastructure are correlated, but they're not the only -- infrastructure is not the only barrier to adoption or lack of infrastructure is not the only barrier to adoption.

⁶ Exhibit 651, Ellis Surrebuttal at pages 5-6.

⁷ Exhibit 651, Ellis Surrebuttal at page 3.

⁸ Transcript at page 269. The transcript will be cited hereinafter as “Tr.” followed by a page number.

So in looking at the adoption, many factors go into that, including vehicle availability, the cost of the vehicle, general awareness of electric transportation, electric vehicles, the infrastructure, you know, general awareness of the whole market dynamics.

The infrastructure itself and the availability of infrastructure, if it's not available, then studies have shown that EV adoption is not going to be as broad as it would be with the infrastructure in place. But those other factors also have, you know, played a role in the overall adoption. It's not one component alone.

Q [Chairman Silvey]. Do you believe it to be the primary component?

A [James Ellis]. I believe it to be one of three. Cost of vehicle and availability is one, infrastructure availability is one, and general awareness of electricity as a fuel and the benefits of driving electric is the third.⁹

This dialogue highlights not only the interdependency of several factors that will drive Missouri's EV market forward, but shows that among those factors, a utility program like Charge Ahead – Electric Vehicles can be effective in addressing the major need of infrastructure availability. To that end, Mr. Ellis pointed out that needs and opportunities for this program exist across all of the segments targeted in the program. Multifamily, workplace, public, and corridor deployments are each necessary to address the diverse needs of this growing market. Through the rebate-based program design in Charge Ahead, utility investment can account for the unique needs of each segment and significantly contribute to those deployments.¹⁰ This point is echoed in Division of Energy's testimony, where Ms. Kelley provided that charging availability in multiple segments is critical to meeting market needs and driver expectations.¹¹

Ameren also noted that as EV market growth in Missouri accelerates in the coming years, the utility and ratepayers would benefit from load growth and greater grid asset utilization.¹²

⁹ Tr. 307-309.

¹⁰ Exhibit 651, Ellis Surrebuttal at pages 7-8; Tr. 311

¹¹ Exhibit 300, Kelley Rebuttal at pages 6-7.

¹² Tr. 28-29.

ChargePoint supports that contention, and provided testimony at hearing that the use of networked charging infrastructure can give utilities insights into charging events in their service territories and inform grid management:

The program provides the opportunity for gaining valuable data from networked charging stations. As noted in Section III above, networked charging provides grid benefits over traditional load management, and valuable data can be collected to inform better utility planning decisions and help maintain reliability and affordability. The data collected from smart chargers incented in the rebate program may include utilization insights, price signals to drivers, load profiles, and preferred features. These insights will be key to assessing the effect of the program and advancing beneficial EV adoption in Missouri.¹³

According to several parties, including Natural Resources Defense Council and Sierra Club, not only is load growth an important aspect and benefit of the Charge Ahead program, load visibility will become a significant need in planning for future grid management as EV penetration advances.¹⁴

b. Has Ameren Missouri provided sufficient evidence that the program is cost effective?

The rebate-based approach proposed in Ameren Missouri's Charge Ahead – Electric Vehicles program is generally less costly than alternative utility investment models and has been successfully employed in other utility service territories. Overall, this program design reduces risks to ratepayers, lowers the cost barrier to electric vehicle supply equipment¹⁵ deployment, allows the charging station site host to determine which equipment and services best meet their needs, and builds a sustainable EV charging marketplace to help accelerate EV adoption.¹⁶ This arrangement allows for competitive market participants to continue to meet unique customer

¹³ Exhibit 650, Ellis Rebuttal at page 20.

¹⁴ Tr. 54.

¹⁵ Abbreviated commonly as "EVSE."

¹⁶ Exhibit 651, Ellis Surrebuttal at page 3.

demands and serve the evolving market, while also allowing utilities to invest in charging deployments without the risks of large-scale ownership and operation.¹⁷

Rebates lead to fast, efficient deployments of charging infrastructure, enabling the competitive market to continue to bring a diversity of products to customers and stimulating sales activities.¹⁸ As rebates offered under the Charge Ahead – Electric Vehicles program would require a cost share from site hosts, site hosts are actively offsetting the costs of the program. This site host “skin-in-the-game” also reduces risks to ratepayer funding and gives motivation to choose appropriate sites for the greatest utilization. Site hosts receiving rebates will be invested in the management, use, and maintenance of EV charging stations on their properties, which will increase the overall benefits and success of the Charge Ahead program.¹⁹ It is for these benefits of cost efficiency that utility commissions in many other jurisdictions have approved similar rebate- and incentive-based utility investments in EV charging. Mr. Ellis provided examples of those jurisdictions, including Massachusetts, Utah, California, Ohio, and Nevada.²⁰

c. If the program is approved, what is the appropriate cost recovery mechanism?

ChargePoint supports the Company’s contention, stated at hearing, that greater buildout of EV charging infrastructure, along with growing electric vehicle market penetration, will increase load over time and support greater utilization of grid assets.²¹ Increased load from EV charging leads to increased grid benefits that are shared by all customers, and accordingly programs that support EV charging incentives should be allowable in cost recovery.²²

¹⁷ Exhibit 650, Ellis Rebuttal at page 15.

¹⁸ Tr. 309, 312.

¹⁹ Exhibit 650, Ellis Rebuttal at page 18.

²⁰ Exhibit 651, Ellis Surrebuttal at page 4.

²¹ Exhibit 650, Ellis Rebuttal at page 16; Tr. 39.

²² Transcript Vol. 2, page 28-29.

d. If the program is approved, what conditions, if any, should be imposed by the Commission?

It is ChargePoint's position that it is reasonable to expect thorough reporting from the Company on the incentives provided, customers engaged, and buildout of EV charging infrastructure achieved. This reporting is contemplated in the testimony of Steven Wills.²³ It is also reasonable for Ameren Missouri to develop a set of qualification criteria for eligible infrastructure in the program, from which customers may choose the charging solution that best suits their needs.²⁴

In addition, ChargePoint's believes that Ameren Missouri should maintain its intent to offer multiple eligible EV charging hardware and network vendors from which customers may choose, as well as the stated ability for customers to control assets deployed under this program. In this program design, utilities provide a direct financial incentive to site hosts for the installation of the qualified EV charging equipment of their choice. Since utility investment is directed to offset the costs of deploying charging stations to customers, site hosts can choose, purchase, own, and operate charging stations on their properties.²⁵ As the Charge Ahead – Electric Vehicles program offers choice of charging equipment and networks, site host control of charging equipment on their sites, and rebates designed to encourage greater deployments in target segments, the program aligns with best principles for utility investment in EV charging infrastructure.²⁶

²³ Exhibit 6, Wills Direct at page 40.

²⁴ Exhibit 650, Ellis Rebuttal at page 11.

²⁵ Exhibit 650, Ellis Rebuttal at page 15.

²⁶ Exhibit 650, Ellis Rebuttal at page 18.

D. Conclusion

The Commission should approve the Charge Ahead – Electric Vehicles Program. The program will support EV adoption in Missouri, enable utility insights into new EV loads, provide for the benefits of electrification in a cost- and risk-mitigated fashion, and foster a long-term competitive market for EV charging.

Respectfully submitted,

/s/ Mark W. Comley

Mark W. Comley #28847
NEWMAN, COMLEY & RUTH P.C.
601 Monroe Street, Suite 301
P.O. Box 537
Jefferson City, MO 65102-0537
(573) 634-2266
(573) 636-3306 (FAX)

Attorneys for ChargePoint, Inc.

Certificate of Service

I hereby certify that a true and correct copy of the above and foregoing document was sent via email on this 7th day of January, 2019, to:

Office of Public Counsel at opcservice@ded.mo.gov;
General Counsel's Office at gencounsel@psc.mo.gov;
Diana M. Vuylsteke at dmvuylsteke@bryancave.com;
Paula Johnson and Wendy Tatro at AmerenMOService@ameren.com;
Henry B. Robertson at hrobertson@greatriverslaw.org;
Robert Hack at Rob.Hack@kcpl.com;
Roger Steiner at roger.steiner@kcpl.com;
Lewis Mills Jr. at lewis.mills@bclplaw.com;
Rick E. Zucker at zuckerlaw21@gmail.com;
Diana Carter at dcarter@brydonlaw.com;
Michael C. Pendergast at mcp2015law@icloud.com;
Andrew J. Linhares at andrew@renewmo.org;
Tim Opitz at tim@renewmo.org;
Lisa Kremer at Lisa.Kremer@ded.mo.gov;
Cherylyn Kelley at Cherylyn.Kelley@ded.mo.gov; and
Michael Lanahan at Michael.Lanahan@ded.mo.gov.

/s/ Mark W. Comley