Exhibit No.:

Issues: Charge Ahead – Electric Vehicles

Program, Low Income Considerations, Economic Development Implications

Witness: Cherylyn Kelley

Sponsoring Party: Missouri Department of Economic

Development – Division of Energy

Type of Exhibit: Surrebuttal Testimony

Case No.: ET-2018-0132

MISSOURI PUBLIC SERVICE COMMISSION

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

CASE NO. ET-2018-0132

SURREBUTTAL TESTIMONY

OF

Cherylyn Kelley

ON

BEHALF OF

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT DIVISION OF ENERGY

Jefferson City, Missouri November 16, 2018

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application

My commission expires:

Ar	of Union Electric Company d/b/a Ameren Missouri for Approval of Efficient Electrification Program)	Case No. ET-2018-0132			
AFFIDAVIT OF CHERYLYN KELLEY						
S	STATE OF MISSOURI)					
C	COUNTY OF COLE)	SS				
	Cherylyn Kelley, of lawful age, beir	ng duly	sworn on her oath, deposes and states:			
1. My name is Cherylyn Kelley. I work in the City of Jefferson, Missouri, and I am employ						
	by the Missouri Department of Economic Development as a Planner II, Division of					
	Energy.					
2.	2. Attached hereto and made a part h	nereof fo	or all purposes is my Surrebuttal Testimony on			
	behalf of the Missouri Department	of Ecor	nomic Development – Division of Energy.			
3. I hereby swear and affirm that my answers contained in the attached testimony to the						
	questions therein propounded are true and correct to the best of my knowledge.					
		_	02001			
			Cherylyn Kelley			
Subscribed and sworn to before me this 16 th day of November, 2018.						
	LAURIE ANN ARNOLD Notary Public - Notary Seal State of Missouri Commissioned for Callaway County My Commission Expires: April 26, 2020 Commission Number: 16808714		Tamie an and			
	Johnnission Number, 10808/14	ح	Notona Dublic			

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I. INTRODUCTION

- 2 Q. Please state your name and business address.
- A. My name is Cherylyn Kelley. My business address is 301 West High Street, Suite
 720, PO Box 1766, Jefferson City, Missouri 65102.
- 5 Q. By whom and in what capacity are you employed?
 - A. I am a Planner II in the Energy Policy and Resources group in the Missouri Division of Energy ("DE").
 - Q. Have you previously filed testimony in this case before the Missouri Public Service Commission "PSC" on behalf of DE or any other party?
 - A. Yes, I filed rebuttal testimony on October 1, 2018 that provided an overview of the EV market, barriers to EV adoption as well as potential benefits that could result from permitting utility investment in EV charging infrastructure. My rebuttal testimony further addressed the role of electric utilities to ensure underserved areas of the state of Missouri have access to electric vehicle "EV" infrastructure as well as the positive economic development opportunities increased EV deployment and necessary accompanying infrastructure can provide to the state.

II. PURPOSE AND SUMMARY OF TESTIMONY

- Q. What is the purpose of your Surrebuttal Testimony in this proceeding?
- A. The purpose of my testimony is to respond to the rebuttal testimony of ChargePoint, Inc. witness Mr. James Ellis. My testimony will expand on topics he introduced relating to economic development and market competition in the electric vehicle charging station ("EVCS") context. I also address the concerns in PSC Staff witness Mr. Byron Murray's rebuttal testimony relating to the necessity

of utility investment in EVCS when other forms of investment already exist. I further address the need to include low income areas in Union Electric Company d/b/a Ameren Missouri's ("Ameren Missouri" or "Company") deployment plans for charging stations. In short, I recommend that the PSC approve the Charge Ahead program as it could have positive effect on economic development in the state and that 10% of funds should be allocated to ensure that underserved and low-income communities benefit from these proposed investments as well.

III. ECONOMIC DEVELOPMENT

Q. Does Mr. Ellis raise important economic development considerations?

A. Yes. Mr. Ellis's testimony includes discussions related to economic development opportunities that could result from the Company's proposal. Specifically, he mentions that the program would incent the development of EVCS infrastructure in a way that also would result in stimulating technology innovation¹. This could have the effect of creating higher-paying jobs in the EV design and development fields,² in addition to bringing down the cost of technology as more investment into product improvement is made.

There are also other economic development considerations associated with the Company's proposal. First, transportation costs are a significant expense for households: as much as 25% of a family's budget can be spent on transportation

¹ ET-2018-1032, Ellis Rebuttal, page 3.

² Bureau of Labor Statistics, Careers in Electric Vehicles, https://www.bls.gov/green/electric_vehicles/

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in auto-dependent locations.^{3,4} A significant portion of transportation expenses are attributed to the consumption of petroleum products.⁵ A majority of money spent on petroleum products, such as gasoline, does not remain in the local economy and instead flows back to the producers of the product.⁶ EVs avoid many of these costs, since they require significantly fewer petroleum products to operate; this can help relieve the significant financial burden associated with transportation and allow families and businesses to spend more in local and regional economies.

Further, advancement of electric vehicle charging stations presents opportunities not only to expand the EV market in Missouri but begins to enable the state to be positioned as one where those traveling to or through Missouri, while using electric vehicles, can be assured charging is available.

- Q. Do you agree with Mr. Ellis that the Company's proposal would encourage market competition?
- A. Yes. The proposed program requirements are not prescriptive as to what EV charging products must be utilized in order to be eligible. This allows site hosts to select the charging equipment, network, and other services that best suit their

³ Federal Highway Administration https://www.fhwa.dot.gov/livability/fact_sheets/transandhousing.cfm

⁴ Automobile Dependency: Refers to transportation and land use patterns that favor automobile access, meaning it is more difficult to reach services and activities without automobiles. This can occur in rural and urban environments. http://www.vtpi.org/tdm/tdm100.htm

⁵ Bureau of Labor Statistics, Consumer Expenditures – 2017, https://www.bls.gov/news.release/cesan.nr0.htm

⁶ Energy Information Administration (EIA), Gasoline Explained: Factors Affecting Gasoline Prices, https://www.eia.gov/energyexplained/index.php?page=gasoline_factors_affecting_prices

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needs and will drive the market to continuously improve the products and services they offer to meet those needs.

IV. UNDERSERVED AND LOW-INCOME COMMUNITY CONSIDERATIONS

- Q. Do you agree with Mr. Ellis's statement that the Charge Ahead program will incent the development of charging infrastructure in a way that will stimulate market competition? 7
 - Yes. I agree with Mr. Ellis that the rebates provided through the Charge Ahead program will stimulate EVCS development and market competition. However, there is still legitimate concern that this development will only occur in certain areas. As these valid reservations remain, I continue to recommend, as I did in my rebuttal testimony, that the Company allocate 10% of Charge Ahead funds to EVCS deployment in underserved and low-income communities. These funds should be provided for EVCS rebates where beneficial. In addition, it may be appropriate to create a working group to evaluate additional barriers to electrification in low income areas. Such a working group may evaluate concerns such as "first mile/last mile" connection challenges. "First mile/last mile" is used to describe gaps on either end of a public transit trip that is not within walking distance. Examples of potential solutions could include electric shuttles, ride-hailing services using EVs, and e-bikes and scooter sharing. The working group could also assist in identifying additional funding sources to

expand transportation electrification efforts in these communities. For example,

⁷ ET-2018-1032, Ellis Rebuttal, pages 3-4.

"The Free Ride," a for-profit entity providing electric vehicle shuttle services to the public, utilizes sponsorship from companies like L'Oreal Paris and Verizon to provide free rides in auto dependent locations such as Florida, California, and New Jersey. Leveraging outside funding sources in addition to the 10% allocation from the Charge Ahead program could be a way to address the transportation needs of underserved and low-income communities in a meaningful way that also reduces emissions and financial burden.

- Q. Does the existence of other EVCS programs make the Charge Ahead program unnecessary, as stated by Byron Murray on page 7 of his rebuttal testimony⁹?
- A. The availability of one funding source does not make the other irrelevant.

 Leveraging multiple funding sources, such as that from the Volkswagen

 Settlement, would be the most effective means to deploying EVCS in all parts of the state in a timely manner.

V. CONCLUSIONS

- Q. Please summarize your conclusions and the positions of DE.
- A. The Charge Ahead program creates an environment of market competition that is anticipated to spur economic development through job creation as well as product and service choice. Additionally, the lower operating costs provided by adoption of EVs would result in more money being spent in local and regional economies.

⁸ The Free Ride, http://thefreeride.com/

⁹ ET-2018-0132, Murray Rebuttal, Page7

However, underserved and low-income communities' needs should be considered so they are not left behind as the transportation market progresses.

I recommend the Commission approve the Charge Ahead program in light of the economic development opportunities that an expanded EVCS network could provide. However, I would also recommend the Commission consider the needs of underserved and low-income communities through an allocation of 10% of the Charge Ahead budget to ensure equitable access to electrified transportation resources.

- Q. Does this conclude your Surrebuttal Testimony in this case?
- 10 A. Yes.

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