

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC INVESTIGATION OF)	
AMENDMENTS TO THE PUBLIC UTILITY)	CASE NO.
REGULATORY POLICIES ACT OF 1978 AND)	2022-00369
ELECTRIFICATION OF TRANSPORTATION)	

COMMENTS OF DUKE ENERGY KENTUCKY, INC.

I. INTRODUCTION

Please accept these comments submitted on behalf of Duke Energy Kentucky, Inc., (Duke Energy Kentucky or Company) in response to the Kentucky Public Service Commission’s (Commission’s) request for comments from jurisdictional utilities and others in order to develop a record that the Commission can draw upon as it considers the standards established by amendments to the Public Utility Regulatory Policies Act of 1978¹ (PURPA) with regard to electrification of the transportation sector.²

II. BACKGROUND

On November 7, 2022, the Commission initiated this proceeding to investigate the amendments to the PURPA as it relates to electrification of transportation. The amendments to PURPA do not specify the procedure that the Commission must follow in considering the standards established by the PURPA amendments; therefore, the Commission found as an initial matter it would first elicit comments from interested parties, including all Kentucky jurisdictional electric utilities.

¹ 16 U.S.C. § 2621(d).

² *In the Matter of an Electronic Investigation of Amendments to the Public Utility Regulatory Policies Act of 1978 and Electrification of Transportation*, Case No. 2022-00369, Order (November 7, 2022).

In its November 7, 2022, Order, the Commission directed jurisdictional electric utilities to provide: (1) report of existing measures used to promote electrification of the transportation sector by the electric utility; (2) discussion of existing rate mechanisms that promote affordable and equitable electric charging options, improve customer experience associated with charging, accelerate third-party investment, and/or appropriately recover the marginal costs of delivering electricity to electric vehicles (EV) and electric vehicle infrastructure; and (3) discussion of appropriate measures to promote greater electrification of the transportation sector. Duke Energy Kentucky provides its comments on these topics below.

III. DISCUSSION

A. A report of existing measures used to promote electrification of the transportation sector by the electric utility.

Duke Energy Kentucky does not currently have any formalized measures in place specifically to promote electrification of the transportation sector. The Company believes that EV technology has potential and has invested in some EV assets for its own operations: eight workplace chargers and two fleet vehicles. However, the Company does not currently offer any measures to customers to promote electrification of transportation.

The Company has, however, engaged with various stakeholders to ascertain their interest in EVs, including intentions to electrify fleets. Similarly, the Company is working in partnership with its regional metropolitan planning authority on the anticipated build-out of EV charging infrastructure. Such conversations have been prompted by the various provisions of the Infrastructure Investment and Jobs Act (IIJA) that are designed to accelerate the electrification of transportation; provisions that will introduce new load onto the existing electric grid and force coordinated attention to its reliable operation.

B. Existing rate mechanisms that promote affordable and equitable electric charging options, improve customer experience associated with charging, accelerate third-party investment, appropriately recover the marginal costs of delivering electricity to electric vehicles and/or electric vehicle infrastructure.

The Company does not currently have rate mechanisms targeted directly at equitable EV charging. However, the Company does offer multiple rates and or riders that EV customers can leverage. These rates and riders have robust design characteristics but have not been specifically assessed for EV charging and the possible outcomes associated with EV adoption. These rates include the time of use rates, Rate DT and Rate TT for applicable customers. In addition, the Company offers Rider LM which provides a time of use design for smaller commercial customers. Finally, Rates DS and DP offer cap rates that limit low-load factor customer exposure to higher rate levels. In addition, the Company has proposed multiple rate mechanisms in its recently filed and currently pending electric base rate case, as described in the next section.

C. Appropriate measures to promote greater electrification of the transportation sector.

Generally speaking, Duke Energy Kentucky anticipates that all customers in its service territory would benefit from increasing EV adoption. The Company anticipates cost savings to ratepayers as EV adoption increases. As incremental load is created with the increasing spread of public and private EV charging facilities, a broader base is created through which to spread utility costs. Selling electricity to charge EVs in excess of any increases in costs of service related to the additional load has the potential to generate significant incremental revenue, which would then translate into cost savings for all utility customers. Additionally, EVs offer an opportunity to make the most of off-peak capacity,

since charging often can be accomplished during off-peak periods, especially through at-scale utility load management programs and rate mechanisms.

For these reasons, the Company believes it is important to seize opportunities to simplify the path to broader EV adoption and to build a relationship with EV drivers that can be leveraged for future innovative rate mechanisms and programs.

Pending Rate Mechanisms

Duke Energy Kentucky currently has three rate mechanisms pending review in its electric base rate case that the Company believes will appropriately promote electrification of transportation in its service territory and benefit customers.

1. Electric Vehicle Site Make Ready Credit (Rate MRC or MRC program)

The MRC program³ will, if approved, promote electrification of transportation, in a manner consistent with the IJJA's factors. Rate MRC would be available on a voluntary basis to residential customers and to non-residential customers who require improvements to their homes or places of business respectively (make ready infrastructure) to prepare for installation of a Level 2 or higher EV charger. The make-ready infrastructure installed, as well as the charger, would be owned by the customer or a third-party, not the Company.

The MRC program promotes affordable and equitable charging options by alleviating capital barriers to EV adoption. Providing funding for make-ready infrastructure will enable homeowners and businesses to bring power to EV charging hardware when they otherwise might not have been able to do so. Further, the program provides for special allowance for multi-unit dwellings and Housing Authority buildings

³ *In the Matter of the Electronic Application of Duke Energy Kentucky, Inc. for: 1) An Adjustment of the Electric Rates; 2) Approval of New Tariffs; 3) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; and 4) All Other Required Approvals and Relief*, Case No. 2022-00372, Application, Volume 11, Schedule L-1, Tariff Original Sheet No. 83, pgs. 120-124 (December 1, 2022).

to increase access to EV charging for those that do not own their own single-family home. These aspects of the MRC program improve equity and affordability.

Not only would the MRC program make EV adoption more affordable, but it would also improve the customer experience. It provides residential customers with the Contractor Option wherein a Company-approved installer is assigned to install make ready infrastructure at the home, thus removing any barriers of consumer confidence in safe installation. Furthermore, the program provides for Level 2 or higher EV charging equipment installations, which reduces charging times, a key facet of the customer experience, while also enabling residential load management because necessary day-to-day charging needs can typically be met in a fraction of the time the EV is parked in at the home.

In addition to the above direct benefits to customers, the MRC program also promotes third-party investment. Because it applies to all EV charging hardware ownership models and use cases, it brings down the cost of make-ready infrastructure to third parties. Make-ready credits can be applied to scenarios as diverse as an electric transit bus fleets and DC fast-charging-installations operated by a third-party network and hosted on the property of a local Kentucky convenience store. Make-ready credits can even be coupled with federal funding brought about by the IIJA.⁴

Finally, the MRC program provides for recovery, through the rates established, of all the associated program costs.

⁴ H.R. 3684, 117th Cong. (2021).

2. *Electric Vehicle Supply Equipment (EVSE) program*

The proposed voluntary Electric Vehicle Supply Equipment (EVSE) program⁵ will, if approved, provide residential and non-residential customers with a choice of a Level 2 or higher EVSE to have installed at their home or business, respectively. Once installed the customer would pay a flat rate each month for that charger, for the life of the contract with the Company. Included in the monthly rate amount is the cost of the charger, installation and maintenance & warranty work for the charger during the duration of the contract. Duke Energy Kentucky would own the charging equipment, but customers would operate it on a day-to-day basis to serve their unique needs. Participating customers would be responsible for any energy use at standard rates, as well as any make-ready work that would be needed prior to installation.

The EVSE program promotes affordable and equitable charging because it provides a “rental” structure for acquiring EV charging capability, which offers access to customers who might otherwise have been thwarted by capital barriers. The EVSE program can be configured to a wide array of charging use cases, including multi-family dwellings, so that a diverse array of residential and non-residential customers could potentially find EV charging financially accessible.

Furthermore, the EVSE program would improve the customer experience. Like the MRC program, the EVSE program provides for Level 2 or higher EV charging equipment installations, which means reduced charging times for customers. And, by providing a “rental” framework for the customer, the EVSE program removes maintenance burden and

⁵ *In the Matter of the Electronic Application of Duke Energy Kentucky, Inc. for: 1) An Adjustment of the Electric Rates; 2) Approval of New Tariffs; 3) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; and 4) All Other Required Approvals and Relief*, Case No. 2022-00372, Application, Volume 11, Schedule L-1, Tariff Original Sheet No. 84, pgs. 125-130 (December 1, 2022).

uncertainty associated with technology that is unfamiliar to consumers and businesses, especially smaller businesses.

The EVSE program encourages and facilitates broad and diverse participation by and competition among market players in the charging marketplace. By offering so many choices to customers, the EVSE program will be offering an appealing market for manufacturers. And, the EVSE program can be co-promoted with the MRC program which encourages third-party investment, such that the two programs together will help customers complete the infrastructure stack required for EV charging, as depicted below:



Finally, the EVSE program provides for recovery, through the rates established, of all the associated program costs.

Additional Appropriate Measures to Promote Electrification of Transportation.

In addition to the programs already proposed and described above, the Company believes additional innovative rates and programs could further promote transportation electrification and broader EV adoption. Such possibilities include:

- additional load management programs that are specifically designed to help utilities manage the incremental load from EVs and that incorporate features, such as demand-response, subscription rates, and credits for off-peak default charging;
- vehicle-to-grid technology, allowing vehicles to push electricity to the grid in times of need;
- support for EV fleet growth, enabling the commercial sector to realize cost benefits of EV operation;
 - Note: the pace, scale and clustered load effect of electric fleets may create scenarios in which current paradigms for responding to service requests create cost burden and timelines that are not conducive to fleet EV conversion and therefore additional paradigms may need to be explored;
- And finally, although not solely for EV customers, the Company proposes in their current pending electric rate case a residential critical peak pricing rate. This rate recognizes residential customer adoption of technology such as smart thermostats, rooftop solar, and electric vehicles.

For the purpose of appropriately recovering the marginal costs of delivering electricity to electric vehicles and/or electric vehicle infrastructure, one possibility could be a rider mechanism to recover the cost of new electric infrastructure that is determined to be necessary to serve new EV charging load. So, for example, if a business wants to electrify its fleet, but the circuit on which it relies is already at capacity, the new rider could be used to recover the incremental costs of the new infrastructure required to serve the

additional load occasioned by the customer's fleet electrification. In addition to such mechanisms, the existing line extension rules in 807 KAR 5:041, Section 11 should also be reviewed and possibly updated.

Furthermore, the Company is considering how additional sources of funding could be leveraged to maximize EV adoption, including but not limited to:

- Funds available under the IIJA and National Electric Vehicle Infrastructure (NEVI) Plan;
- Funds still available from the Volkswagen settlement;
- Funds available from the Statewide Transportation Improvement Program (STIP) from the Federal Transit Administration (FTA).

The Company believes there is tremendous potential in increased transportation electrification and looks forward to the Commission's consideration of the PURPA amendments relating to this matter.

IV. CONCLUSION

Duke Energy Kentucky appreciates the opportunity to offer its comments regarding electrification of the transportation sector and hopes that its comments will aid the Commission as it considers the standards established by the PURPA amendments.

Respectfully submitted,

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CERTIFICATE OF SERVICE

This is to certify that the foregoing electronic filing is a true and accurate copy of the document being filed in paper medium; that the electronic filing was transmitted to the Commission on December 16th, 2022; and there are currently no parties that the Commission has excused from participation by electronic means in this proceeding.

/s/Larisa M. Vaysman
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