




A Touchstone Energy Cooperative 

December 21, 2022

***VIA ELECTRONIC TARIFF  
FILING SYSTEM***

Linda Bridwell  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, Kentucky 40602

Re: East Kentucky Power Cooperative, Inc. – Pilot Residential Electric Vehicle Off-Peak Charging Program

Dear Ms. Bridwell:

Please find enclosed for filing with the Commission the above-referenced East Kentucky Power Cooperative, Inc. (“EKPC”) proposed tariff for a Demand Response (“DR”) Pilot Residential Electric Vehicle Off-Peak Charging Program (“pilot program”). The pilot program is being offered in order to offer incentives for residential members to delay their daily electric vehicle (“EV”) charging until off-peak hours.

EKPC is proposing this pilot program in order to try to influence when EV owners use their residential charging stations to charge their EVs. EKPC’s research shows that 80% of EV charging occurs at the residence and mostly during EKPC and PJM Interconnection, LLC (“PJM”) system peak hours. This program is a voluntary program. EKPC intends to use the same application process it currently uses for the Cooperative Solar program. The proposed pilot program proposes an off-peak incentive for residential members to delay their daily EV charging to off-peak hours. The DR Pilot Program provides a \$0.02 per kWh incentive for energy consumed during off-peak hours, which are from 10:00 p.m. to 6:00 a.m. Eastern Prevailing Time. EKPC will provide \$0.01 per kWh incentive and the owner-member cooperative (“Owner-Member”) will provide the other \$0.01 per kWh incentive.

A third-party vehicle data provider, who connects with individual EVs and Electric Vehicle Supply Equipment (“EVSE”) will collect data regarding kWhs consumed off-peak by program participants. This third-party will be able to provide the hourly energy consumed by each participating EV while at the participating residence. By tracking the kWhs through the EV’s metrology, the owner-member cooperative is able to avoid the cost of an installation of a second meter at each participant’s home. This second meter would be needed to monitor energy consumption of the EV only, if the information was not collected by the third-party data provider. EKPC understands that this is not a traditional approach to sub-meter energy consumption, but this alternative allows EKPC to keep costs for the pilot program low and avoids socialization of any

4775 Lexington Road, POB 707  
Winchester, KY 40392  
859-744-4812

charges to all ratepayers. EKPC has issued a Request for Proposals (“RFP”) for the service to be provided by the third-party. It was issued to six companies and five have submitted proposals in response to the RFP. Since EKPC has not worked with these third-party providers in the past, as a precaution and to ensure that the data provided by the third-party is accurate, EKPC plans to install research meters in approximately 10-12% of the participants’ homes. This sampling size should provide EKPC with the assurances that the data provided by the third-party is accurate.

The proposed pilot program is a three-year pilot program which would end June 30, 2026. The Owner-Members will submit to the Commission their request for approval of confirming pilot program tariffs after EKPC receives approval for the proposed tariff.

By offering this pilot program, EKPC believes that this will benefit both EV owners and non-EV owners by reducing the system peak production. EKPC has conducted a cost benefit analysis which is discussed below. EKPC has diligently worked with its Owner-Members and consultants to evaluate the cost-effectiveness and need for the proposed pilot program. An ad-hoc group was created consisting of EKPC and Owner –Member’s staff to research and develop the proposed pilot program. This research found that all major car manufacturers have committed to electrifying their fleets. This pilot program and the research conducted were shared with EKPC’s executive leadership and the Owner-Members’ Chief Executive Officers (“CEOs”) and a decision was made to propose the attached tariff as a pilot. Accordingly, please find attached the following materials to evidence the work performed by EKPC and the Committee as well as the proposed tariffs.

### **1. Exhibit A – Proposed DSM Tariff**

EKPC’s proposed DSM Pilot Residential Electric Vehicle Off-Peak Charging Program tariff is filed herewith as Exhibit A. Included with this exhibit is an update to EKPC’s tariff general index.

### **2. Exhibit B – Supporting Documents: Marked-Up Copy of Proposed DSM Tariff**

EKPC is also including a copy of the modified tariff sheets. The tariff is tendered in a format showing the strike-throughs of the existing tariff sheets for convenience.

### **3. Exhibit C – Supporting Documents: DSM Program Explanation and Presentation, Cost-Effectiveness Assumptions and Summary Results**

EKPC retained an expert in DSM resources, Mr. John Farley, to analyze the cost-effectiveness of this pilot program. He used the widely accepted "DSMore" software tool to prepare benefit-cost ratios for the California standard tests.

Mr. Farley used equipment cost quotes from the potential supplier. He developed hourly load profiles for EV charging. He started with existing profile data from another regional utility, and adjusted it using updated annual kWh and peak kW information. Then he modeled changes to that profile when EV charging is limited to off-peak hours. In this way, he determined the impacts of the pilot program, including kWh shifted and peak kW reduced.

Mr. Farley used EKPC’s avoided cost of energy and capacity to calculate the benefits of the pilot program. EKPC’s avoided cost of energy is the forward price for energy in the energy market operated by PJM. EKPC’s avoided cost of generation capacity is the forward price curve of the PJM Base Residual Auction (“BRA”) for capacity. The avoided energy and capacity costs used in this evaluation represent the market value placed on future energy and capacity savings.

Finally, Mr. Farley calculated benefit-cost ratios in DSMore for the Total Resource Cost, Ratepayer Impact Measure, Participant Cost, and Societal Cost tests.

Attached as Exhibit C are the following documents: Presentation prepared by EKPC and presented to the Executive Leadership and Owner-Member CEOs, and Mr. Farley's Summary and Assumption Sheet.

**Exhibit D – Supporting Documents: Customer Notice and Effective Date**

Pursuant to KRS 278.180(1), EKPC must give at least 30-days' advance notice to the Commission. Therefore, the proposed effective date of these tariff revisions will be February 1, 2023. Pursuant to 807 KAR 5:011, EKPC has posted the requisite notice at its office located at 4775 Lexington Road, Winchester, Kentucky and will post the requisite notice on its website, no later than five (5) business days from today's date, which will include a hyperlink to the Commission's website where the tariff can be found. EKPC has also given written notice to its sixteen (16) Owner-Members by mailing a copy of the notice and proposed tariff to each of them, on this date. A copy of the Customer Notice is attached.

Please contact me if you have any questions.

Very truly yours,

A handwritten signature in black ink, appearing to be 'CA', with a long horizontal flourish extending to the right.

Chris Adams  
Director, Regulatory and Compliance Services

Enclosures

cc: L. Allyson Honaker