



January 6, 2022

Holly R. Anderson
Clerk of the Commission
112 State Street
Montpelier, VT 05620-2701

Re: Case No. 21-5271-INV: Public Utility Commission 2021 Investigation into Rates Related to Electric Vehicles.

Dear Ms. Anderson,

Vermont Electric Cooperative (VEC) offers the following comments on the topics outlined in the Commission's 12/20/2021 Order Opening an Investigation and Requesting Comments in response to the electric vehicle rate design provisions of Act 55 of the 2021 legislative session. The purpose of Sec. 33 was to "...encourage efficient integration of PEVs and EVSE into the electric system and the timely adoption of PEVs and public charging through managed loads or time-differentiated price signals."

VEC continues to actively evaluate rate structure options that meet our goals of encouraging efficient use of the grid, incentivizing transportation options that reduce greenhouse gas emissions, offering rates that are administratively efficient and feasible to implement, and ensuring energy equity and just transitions. Since Act 55 was considered and signed into law, we have gained new experience and are finding new ways to meet these goals, some of which fall outside of traditional rate design.

Section 33 (b) specifically allows utilities to fulfill the PEV rate requirement via a "whole house" time of use rate for public and private charging systems. VEC currently offers this rate to VEC members that participate in the Energy Transformation Program, which includes all members who have utilized VEC's EV and PHEV incentives.

1. **Rate details.** *Details on the specific rate or rates offered, including eligibility by customer class or group. Utilities may either provide a descriptive narrative or the titles or numbers of any tariffs or pilot programs previously filed with the Commission. Please also identify the default residential and commercial retail rates and tariffs for point of reference.*

Residential TOU- VEC currently offers Service Classification 1.2, a Pilot Time of Use optional rate available only to those residential customers who are participating in the Energy Transformation Program. VEC recently surveyed our members who drive electric and found that 93% of the respondents charge primarily at home, and that 62% of those respondents use level II chargers at home and 38% trickle charge. The current TOU rate helps incentivize load management for all EV drivers, regardless of how they charge at home, allowing load management programs and incentives to apply equitably amongst all EV drivers.

The current TOU rate has three time periods—on peak (5:01pm-9pm), mid peak (7:01am-5pm) and off peak (9:01pm to 7am weekdays, and all-day weekends and holidays). Rates for the off

peak period is \$.12426 compared to the default residential rate of \$.18556. These whole house rates provide an incentive for customers to shift their electric usage away from high-cost hours and do not require submetering.

Non-Residential Energy Transformation rate- VEC also offers Service Classification 2.2 for Small Commercial members and 2.3 for Large Commercial members that participate in Energy Transformation projects, and these are non-demand rates. The default rate does include a demand component.

Flexible Load Incentives (Level II Charging)- VEC offers an opt-in load management program for members that utilize level II electric vehicle chargers, home batteries, or flexible load water heaters. For the vehicle charger program, VEC offers a \$250 bill credit when the charger is purchased and the member either enrolls in the load management program or otherwise avoids charging during the peak times of 5-9 pm Mon-Fri. If the member enrolls in the load management platform, they receive an additional \$50 incentive and an additional \$8/month bill credit if they participate in peak events. For chargers enrolled in the load management platform, VEC can request that the charger not operate during peak events (5-6 events per month, up to 3-4 hours each event).

Pilot Level I charger control program- VEC is in the process of developing a load management pilot program to target the 38% of VEC electric vehicle drivers who do not use level II chargers, but instead “trickle charge” at home. The primary reasons given by these members for not using level II chargers was that plugging into a regular outlet is sufficient (57%), and that setting up level II is too expensive (41%). By offering “smart plugs”, VEC will be able to offer a load management option for all members who own EVs.

2. **Enrollment.** *The number of customers enrolled in such rates and the percentage of customers who utilize utility incentives related to EVs (Tier III, for example) who are also enrolled in the rate or rates.*

Residential TOU

- 173 residential members have obtained EV purchase incentives from VEC; 11 of these members (6.4%) have opted in to the “whole home” TOU rate.
- 123 residential members have obtained PHEV purchase incentives from VEC; 5 of these members (4.1%) have opted in to the “whole home” TOU rate.

Non-Residential Energy Transformation rate

None of our commercial accounts currently participate in the Pilot TOU rates due to EV incentives. This rate is currently available to public charging if requested.

Flexible Load Incentives (Level II charging)

All of the VEC members that have taken advantage of the Energy Transformation Program charger incentive participate in some form of load management. There are currently 22 electric vehicle chargers enrolled in VEC’s Flexible Load Home Charger program that allows VEC to manage load during potential peak periods. Approximately 50 other charger incentives have

been given to members who have not yet enrolled in the Flexible Load Program, in some cases because their charger is not compatible. These members have set a charging schedule that avoids 5-9pm weekday peaks.

3. **Effectiveness.** *Whether the rates appear to be directing load away from peak times related to cost. What are the “lessons learned” during implementation so far?*

Members that have enrolled in VEC’s Flexible Load Home Charger Program allow VEC to disable EV charging during called peak events. Each member is able to opt out of a peak event if they need to charge. Members enrolled in this program rarely opt out of events. This program has affirmed the flexibility of EV charging, demonstrating that drivers can and will shift load away from peak times if given the proper price signals and an automated method.

The EV market is developing rapidly and there is not a one-size-fits-all solution. VEC believes that it will be important to remain nimble and flexible to minimize the risk of stranded assets. For example, VEC has on a couple of occasions offered eligibility to certain devices only to have the device manufacturer or third-party communications platform sold and no longer supporting communication.

4. **No EV or EVSE rates.** *If the utility has no EV or EVSE rates, please describe (1) progress toward developing such rates, (2) any barriers the utility is facing as it attempts to implement the requirement, and (3) pathways to overcoming any such barriers associated with the development of rates for EV and EVSE rates in Act 55.*

As stated above, VEC is meeting the statutory requirement through implementation of a whole-house TOU rate and incentives for load management. While VEC is evaluating EV rate options, we are not yet convinced that an EV specific rate would offer enough benefit to outweigh the administrative and technological costs. Since there are other flexible loads in a household or business, we continue to work on expanding our load management programs.

Thank for the opportunity to offer comments.

Sincerely,



Andrea Cohen, Manager
Government Affairs and Member Relations
Vermont Electric Cooperative
acohen@vermontelectric.coop
802-696-9036