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STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Investigation into promoting the ownership and use of electric vehicles in the State of Vermont	February 15, 2019 Case No. 18-2660-INV Vermont Electric Cooperative

COMMENTS OF VERMONT ELECTRIC COOPERATIVE
Information Requests Re: Per-kWh Fees on EV Charging

Vermont Electric Cooperative (VEC) appreciates the opportunity to offer its perspective on some of the questions identified in the 2/4/19 Public Utility Commission (Commission) order regarding per-kilowatt-hour (kWh) fees on electric vehicle (EV) charging.

As discussed in previous comments, VEC supports the goal of transforming our transportation system and appreciates the need for all users of our transportation infrastructure to pay their fair share of the maintenance costs. However, VEC urges the Commission to create a system that avoids unnecessary complexity and administrative costs.

As EV deployment grows across our service territory, VEC's vision is to utilize EV charging as a resource to help manage increasing amounts of intermittent, distributed generation on the grid, as well as costs that result from peak demand. Charging load is unique in that it is mobile, the timing of charging is inherently more flexible, and it may be more responsive to price signals than typical electric load. To realize the full potential of this resource, members must be willing to sign up for the program on offer. Adding cost and complexity, even if coupled with a lower EV rate, creates a disincentive for vehicle owners to participate in the flexible smart grid of the future and erodes the value we would be able to offer.

In its order entered 2/4/19, the Commission asked for information to better understand the process and implications of implementing a per-kWh fee on EV charging. VEC offers responses to the first two questions:

1. ***The cost and requirements that are expected to be incurred by Vermont distribution utilities if a kWh tax or fee was imposed and if the DU was required to calculate, bill, and collect the tax or fee.***

Fee Assessment Point

VEC would incur costs in order to determine where to assess fees. VEC does not currently offer incentives on home charging equipment or a rate specific to EV charging. We do offer purchase and lease incentives on EVs, but we do not necessarily know whether the vehicle owner has installed home charging equipment or whether they are choosing to "trickle-charge" by simply plugging their car into an electrical outlet. VEC suspects that many owners of hybrid vehicles with smaller batteries may choose the latter rather than investing in home charging equipment. It is unclear whether the Commission would be proposing the inclusion of "trickle-charging" in the fee assessment or only Level 2 and 3 charging.

VEC does not necessarily know about the existence of public or business charging stations because in many cases they are not separately metered. If we do not have a registration program or some type of regulatory oversight of public charging stations, it will be difficult to accurately determine fee assessment points.

Billing and Collection

If VEC were required to implement a per-kWh fee for electric vehicle charging, we would have to design a new program to administer this fee. A specific fee for EV charging would differ considerably from the energy efficiency charge (EEC) because the EEC is collected on all metered usage (and demand, where applicable), according to existing rate schedules. This process mirrors what our billing system is designed to do. We currently do not have any per-kWh charges specific to a particular behind-the-meter appliance, and therefore we do not have a system in place to implement these types of charges.

One option would be to require the owner of the vehicle or public charging station to sub-meter their EV charging, which would require them to have electrical work done to wire in a new meter socket at their cost. VEC would charge $55 to have a meter technician install the meter, and the member would be charged a monthly fee for the additional meter (currently $5.62 for residential members and $18.26 for small commercial). It is likely that these metering costs (which are based on the costs to VEC of furnishing the meter) could be greater than the revenue collected through the per-kWh fee. For a residential account, the

meter fees would be $67.44 per year, whereas the annual per-kWh fee if we charged 1.9 cents per-kWh would be about $40 for a plug-in hybrid and $70 for an all-electric vehicle.

Another option would be that EV owners would be required to install home charging equipment. Presumably, the electric utility could retrieve meter data from the charging equipment platform. Since we have no experience with this process, at this point we have more questions than answers about how this would work. Do all home chargers have platforms that the utility could access? Would they all allow access? Would the vehicle owner be compelled to use charging equipment from particular providers that allow access? How many different platforms would the utility have to engage with to retrieve this charging data every month? We assume that we could not integrate data from the charging platform into our billing system and that this work would have to be done manually. Any time we need to perform manual work for bills, especially on an ongoing basis and for multiple accounts, we have concerns about billing accuracy. VEC anticipates significant administrative costs if we were required to use data from the charging equipment to assess a per-kWh fee.

Compliance and Enforcement

Up to this point, participation in other utilities' home charging programs has been voluntary. If we were required to collect per-kWh fees, presumably participation would be mandatory, which raises additional questions. Our primary question is, what will happen and what is the utility's role if members don't participate as designed? What if the vehicle owner doesn't install charging equipment at their property? What if they install it but do not notify their utility in order to avoid the fee? How would we know? Would utilities have to enforce the administration of this fee? For example, would we report members who we suspect are evading the fee to a state agency? We also have significant concerns about the privacy implications that this raises.

Administrative Cost

We are aware that the Commission is interested in obtaining detailed information on the costs to assess, administer, bill, and ensure compliance with a per-kWh system. The cost of implementing a compliance program would be dependent on the expectations and

requirements put on the utility. If we were to require sub-metering, the cost would largely be borne by the participant, which could create a barrier for potential EV owners and could easily be evaded by simply installing charging equipment that is not sub-metered. If we were required to use data from charging platforms, the cost would largely be borne by the utility. Unfortunately, we are unable to offer more specifics about administrative cost until we can better understand the requirements and expectations that would be placed on us and our members.

However, we suspect that cost to implement the program would exceed what we estimate would be collected on an annual basis. Based on current vehicle registrations in our service territory, we estimate that $11,000 would be collected annually through a 1.9 cent per-kWh fee. Given this modest amount, we are not convinced that this would be the best use of staff time and ratepayer dollars. We would prefer to use our resources to design and implement programs that encourage members to adopt EVs and transition to our energy future.

As stated above, we envision our role in the transformation of our energy systems to be education, encouraging proliferation, and managing load, not compliance and enforcement of EV-specific fees. Our greatest concerns with this revenue collection option are the complexity that it could impose, the diversion of our resources from other high priority programs, and its effect on member participation. Our goal is to simplify the member's experience with the electric grid, even as the grid becomes more complex.

2. ***For any Vermont utility that currently had in place a program or tariff that provides a rate specific to EV charging, an explanation of how EV charging is tracked and accounted for when billing a customer using that rate and whether such tracking could also be used for calculating and billing for a kWh tax or fee applied to that same usage.***

VEC does not have a program or rate specific to EV charging. We offer participants who take advantage of any of our Energy Transformation Program incentives (Tier III of the Renewable Energy Standard) the option of switching to our time of use (TOU) rate. If they choose the TOU rate, it applies to the full load for their home or business. If their charging equipment were sub-metered, the TOU rate (or potentially an EV-specific rate) could apply

only to vehicle charging. However, to have this set up the participant would assume the cost detailed above.

Thank you for the opportunity to comment. VEC looks forward to continuing this discussion so that the state can achieve the goals of reducing greenhouse gas emissions in a way that is fair and cost-effective.

Respectfully submitted,
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