

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Investigation into promoting the ownership and use of electric vehicles in the State of Vermont	December 14, 2018 Case No. 18-2660-INV
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SUPPLEMENTAL COMMENTS OF VERMONT ELECTRIC COOPERATIVE, INC.

Vermont Electric Cooperative, Inc., (VEC) offers the following additional information regarding cost of meter installations and other costs associated with installation of electric vehicle charging stations in response to questions raised at the November 30, 2018 electric vehicles investigation workshop.

At the workshop there was significant discussion regarding costs related to the installation of utility billing grade meters at residential and commercial installations, whether those meters are needed, how much they cost, whether the cost varies, who pays, and how those costs are determined. These questions arose from a concern that these costs could be a barrier to the installation of charging infrastructure. The discussion also extended beyond meter installation to other associated costs such as a new service, transformer upgrade, service upgrades, etc. We hope the scenarios and information provided below is helpful as you continue your investigation. It is also important to emphasize that not all charging infrastructure requires installation of new meters.

1. Costs associated with installation of residential charging equipment.

- For home charging (level 1 or 2) in VEC service territory, there is currently no required additional cost to the VEC member by our utility. The household can, in most cases, use their existing service to power their vehicle(s), and if they qualify and decide to opt-in, they can put all of their service onto the VEC Tier 3 time of use rate.
- If the member decides to install a level 2 charger, there would be costs to the member payable to their third party service providers (electrician, the equipment supplier, etc.). The best source of information about those costs would be those third party providers.
- If the member determines they want an additional billing-grade meter installed by VEC, the member would have to hire an electrician to install a meter socket and VEC would arrange to have the meter installed within five business days for a \$55 trip fee. The

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member would then be charged an additional \$5.62 per month for the additional meter, which is based on the cost of the meter and the module.

2. Costs associated with installation of commercial charging equipment.

- It is possible that some commercial members may see a similar scenario as identified above for residential. For example, a business that installs level 1 or level 2 charging for their employees generally will not need any system upgrades or metering additions. In this scenario they pay the utility bill as they always have, and they can rely on their agreement with third party equipment providers if they wish to recoup their costs from the users.
- If the commercial member chooses to have a utility meter installed that is dedicated to the charging equipment, VEC would require that they create a new service and the member would be charged an additional monthly customer charge, based on their rate class. Again, if the member decides to install a level 2 or level 3 charger, or needs a service upgrade, there would be costs to the member payable to third party service providers (their electrician, the equipment supplier, etc.). The best source of information about those costs would be the third party providers.
- The costs VEC incurred to install a dual port level 2 public charging station at our main office (which is not located in VEC service territory) included approximately \$7,500 for the charging equipment, the configuration service, and one-year service plan. We also needed to pay approximately \$9,000 for electrical and construction services including new circuits, running wire to the location, and installing the concrete base and barriers. There was no cost or payment to the local utility.
- If an entity is looking to install more robust charging infrastructure, such as a fast charger or bank of level 2 chargers, there is a greater likelihood that utility system upgrades could be required depending on the current service. For example for safety and reliability, they may need to upgrade a transformer or do a service upgrade. VEC's line extension tariff outlines the costs for various transformer sizes. This would be in addition to any third party costs involved for equipment and extension of service which could vary considerably depending on the location and application.

In summary, many of the additional utility specific costs would not be required unless the member requests additional metering (for example, if they wanted EV-only time of use rate). VEC has no

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interest in charging any more than we need to cover our costs of providing charging infrastructure, and we welcome the addition of more charging infrastructure in our service territory.

Legislative Recommendations re: Scope of Jurisdiction

In previous comments we recommended a model of regulatory oversight that would ensure adequate consumer protection without creating unnecessary barriers to the development of needed infrastructure. We believe the PUC should be enabled through rulemaking to create a registration and reporting system for electrical vehicle charging equipment. One way to accomplish this would be to create a new subsection similar to the campground submetering section of Title 30 § 249a.

Electric Vehicle Charging Stations

Notwithstanding the provisions of section 249 of this title or any other provision of this title, a person who installs and operates an electric vehicle charging station that purchases electricity from a company so engaged in the distribution or sale of electricity, may install and operate the charging station if such service is provided in accordance with rules adopted by the Commission including rules relating to registration fees, accuracy of meters, and consumer information including notice and transparency of rates.

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

Respectfully submitted,
VERMONT ELECTRIC COOPERATIVE, INC.



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