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## **Filed in ePUC**

February 15, 2019

Judith Whitney, Clerk  
Vermont Public Utility Commission  
112 State Street  
Montpelier, Vermont 05620-2701

Re: Case No. 18-2660-INV; Investigation into promoting the ownership and use of electric vehicles in the State of Vermont

Dear Ms. Whitney:

The Public Utility Commission (“Commission”) issued information requests in this case on February 4, 2019 seeking input from participants on the process and implications of implementing a kWh fee on electric vehicles (“EV”). The Commission invited comments by February 15, 2019, and GMP is pleased to provide its comments.

### Introduction:

Reducing Vermont’s carbon footprint and greenhouse gas (“GHG”) emissions is critical to our customers and our climate. Since the transportation sector is responsible for the most GHG emissions in Vermont at approximately 43%<sup>1</sup>, promoting EV adoption in Vermont is something we all must work together on to help us meet the carbon and GHG reduction goals in the Comprehensive Energy Plan and statutes. For this reason, as discussed in our 2018 Integrated Resource Plan, GMP has several offerings that promote EV adoption through a variety of programs. As we explained in our January 9, 2019 comments, we should focus on ways to promote EV use, and be careful to avoid EV policies that hamper adoption. It will be very important to balance the benefit of any new fee against the impact it may have on the overall cost to purchase or use EVs.

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<sup>1</sup> According to the Vermont Department of Energy Conservation June 2018 Greenhouse Gas Emissions Inventory Update, the transportation sector represents approximately 43% of total greenhouse gas emissions in Vermont. [https://dec.vermont.gov/sites/dec/files/aqc/climate-change/documents/\\_Vermont\\_Greenhouse\\_Gas\\_Emissions\\_Inventory\\_Update\\_1990-2015.pdf](https://dec.vermont.gov/sites/dec/files/aqc/climate-change/documents/_Vermont_Greenhouse_Gas_Emissions_Inventory_Update_1990-2015.pdf)

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Response to Information Requests:

1. *The costs and requirements that are expected to be incurred by Vermont distribution utilities if the State of Vermont were to impose a tax or fee on EV charging on a kWh basis and if Vermont distribution utilities were required to calculate, bill, and collect that tax or fee.*

GMP could apply a kWh fee on EV charging where GMP's utility meter is dedicated to measuring the kWh usage of energy used to charge EVs.<sup>2</sup> However, it would be rare to have a meter dedicated to one EV charger. Where there is not a separate utility meter for the charger, in order to assess a kWh fee, GMP would need to first know that the customer is using an EV charger and then obtain the kWh usage from the EV charger itself. We are using this as a manual practice in our EV charging pilot explained in more detail below; that pilot is small in scale and designed in part to test this aspect. Our experience to date makes us concerned that it would be time-consuming and resource-intensive to utilize this manual process on a large scale basis. It is likely that to assess and collect a kWh fee on EV charging on a large scale, GMP would need to either use a second utility meter to submeter EV usage (thereby creating costs and inefficiencies for customers) or automate our current process for utilizing charger metering data directly for billing purposes. It should be noted that GMP currently has a few chargers integrated which allow us to access the metering data, however if additional chargers are to participate in a similar fashion, additional costs would be required to integrate these chargers.

Aside from the need to submeter or automate utility systems, any policy creating a kWh fee charge would have to recognize that a great deal of home (and frequently business-based charging) is presently done behind the meter. GMP, through its pilot program, has installed approximately 275 residential chargers; anyone else charging EVs at home in GMP's territory is doing so with their own chargers (or directly from an existing outlet) outside of GMP's program.<sup>3</sup> Absent requiring submetering for EVs or another system to segregate this usage from the customer's whole-house or business usage, there would be no way to collect a kWh fee on energy used for EV charging. Obviously, utilities would only be able to collect and remit taxes for EV charging that is known to the utility and capable of tracking. We know that utility collection would not capture all charging.

Indeed, any such policy would need to carefully avoid perverse incentives for customers to utilize outlets or systems that would avoid a fee. Managing how and when EVs are charged is important and will benefit the operation of the electric grid, as well as reduce overall energy costs for all customers. It is therefore critical that customers be encouraged to participate in utility and third party programs that allow shared access that will benefit all Vermonters.

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<sup>2</sup> This includes collecting a fee from third party EV charging businesses as long as the charging is solely for EV charging. However, GMP does not know of any reason why a third party charging business, like a gas station, would not be able to assess that kWh fee directly to the end user.

<sup>3</sup> As explained below, for Level 1 charging, customers do not even need a charger and can simply plug into an appropriate outlet.

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Additionally, any such kWh fee should avoid creating potential stranded costs, as may occur if a second meter were required. This is a fast-evolving, innovative market, and it is hard to know what innovation is coming that may enable customers, utilities, and third parties to manage EV charging more easily than, or differently from, how we are doing so now.

2. *For any Vermont utility that currently has 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. Please explain any differences in your response for at-home charging versus charging at a public charging station, and any differences based on the use of Level 1, Level 2, or DC fast-charging facilities.*

GMP has been offering an EV Charging Service Innovative Pilot where residential customers are offered an EV charger (for free or at a reduced cost under a Tier 3 program) along with a fixed price monthly charging fee.<sup>4</sup> This program is for residential customers using GMP approved Level 2 chargers only. As part of the program, customers are sent notification of peak events 8-24 hours in advance. During the peak event, GMP will curtail charging capability unless the customer opts-out. If opting out, customers are charged \$0.60 per kWh for electricity consumed through the charger during the peak period in addition to the fixed monthly fee. As explained above, in order to determine the usage during peak periods, GMP subtracts the kWh consumption that is measured from the EV charger itself from the GMP whole-house meter. For each customer, a GMP employee pulls electric consumption data from the charging platform and the customer's individual charger unit. A spreadsheet is developed that includes this data for each customer, and the spreadsheet is sent to the billing team which manually applies a credit for the EV charging kWh consumption for all periods. For consumption during peak periods, GMP's billing team manually adds these kWh to the bill at the higher kWh rate.

GMP's experience with other types of chargers is more limited. Third party non-workplace public charging stations are often networked, meaning they are internet-connected, are part of a network of other chargers and can accept standard credit card payment. These networked stations can be either Level 2 (240V, single phase, max 6.6kW) or Level 3/ "fast chargers" (480V, three-phase, up to 100 kW). The metering and payment processes are the same for both types. GMP sells energy at tariffed rates to these third parties who then sell to end users. In these circumstances, one GMP meter may serve multiple charging units. While GMP could assess a kWh tax to the third party charging station provider based on the energy consumed, presumably the third party could also collect a tax or fee directly from charging customers at the point of sale.

Level 2 home chargers also can be internet-connected but are typically tied to a single customer and sit behind the home's meter. For Level 1 home charging, customers can install a standard 240V outlet and plug in a portable cable or use a standard 120V outlet. Neither would require a separate charging system.

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<sup>4</sup> This pilot recently concluded, ending new customer sign ups under it. GMP is compiling the final report and intends to file a tariff for EV charging.

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In our experience thus far, business charging is usually not separately metered. At GMP, we have charging stations at our offices for employees and visitors, but this consumption is not separately metered or billed to the employees or visitors. That is true for other commercial customers we are aware of with business-based charging programs; the EV charging is not separately metered from the commercial customers' other usage. Because these types of charging are not separately metered, GMP could not assess a kWh fee absent submetering that usage.

3. *Any information or reference materials on other jurisdictions that have implemented, whether by pilot program, statute, or otherwise, a kWh fee on EV charging for the purpose of collecting contributions from EV users. Information explaining how such a tax or fee was implemented and collected and how successful the program has been would be particularly useful.*

GMP is not aware of any jurisdictions that have implemented utility collection of a kWh fee on EV charging for the purpose of collecting contributions from EV users. GMP notes that like Vermont, other jurisdictions are evaluating how to address the shortage in funding for roads and transportation infrastructure. See, for example

<http://publications.iowa.gov/29142/1/EV%20RUTF%20Impact%20Report%20123118.pdf>

Thank you for this opportunity to comment, and if you have any questions, please feel free to reach out.

Sincerely,



Carolyn Browne Anderson

CBA

Enclosure

cc: ePUC Service List