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***Filed via ePUC***

January 6, 2022

Holly Anderson, Clerk  
Vermont Public Utility Commission  
Peoples United Bank Building, 4th Floor  
112 State Street  
Montpelier, VT 05620-2701

**Re: Case No. 21-5271-INV – Public Utility Commission 2021 Investigation into Rates Related to Electric Vehicles**  
***GMP EV rate inventory & initial comments***

Dear Ms. Anderson,

Green Mountain Power Corporation (“GMP”) is pleased to provide the following inventory of rates and tariffs it offers related to EVs and EVSE, per the Commission’s request in its December 20, 2021, Order opening the above-referenced investigation and requesting input from the distribution utilities. GMP is focused on working with customers to address the top source of carbon pollution in Vermont, which is transportation. Switching to electric and away from fossil fuels represents one of the biggest steps Vermonters can take to cut their carbon emissions. Helping reduce the top barriers to driving electric is a priority, which includes vehicle cost and range anxiety. GMP also appreciates the opportunity to provide initial comments and data on EV tariffs we offer, which have a supporting role in helping customers.

**Inventory of EV and EVSE rates and tariffs**

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.

**GMP Response**

*Off Peak Electric Vehicle Residential Service Rate Schedule 72:* This rate is for single-phase electric service at secondary voltage for electric vehicle charging using specific

electric vehicle supply equipment. Participation is open to eligible Residential Rate Schedule 1 customers who have installed a GMP-approved Level 2 (or compatible) charger, have reliable internet access, and are the owner of the account address or have the owner's consent to install charging equipment in a form acceptable to GMP. Customers utilize Residential Rate Schedule 1 for their household consumption with Rate 72 electric use measured by the charging equipment and subtracted from the household billing meter and billed under Rate 72 kWh rates. In partnership with customers, GMP has the ability to not have the charger charge vehicles during Peak Events and customers enjoy a cost-based rate reduction consistent with generation capacity and transmission costs avoided due to GMP's control. This also helps lower costs for all customers. If customers choose, they have the option to override a Peak Event and continue charging, by paying a higher kWh rate that reflects recovery of additional generation capacity and transmission costs.

*Time-of-Use Electric Vehicle Residential Service Rate Schedule 74:* This rate is for single-phase electric service at secondary voltage for electric vehicle charging using specific electric vehicle supply equipment. Participation is open to eligible Residential Rate Schedule 1 customers who have installed a GMP-approved Level 2 (or compatible) charger, have reliable internet access and are the owner of the account address or have the owner's consent to install charging equipment in a form acceptable to GMP. Customers utilize Residential Rate Schedule 1 for their household consumption with Rate 74 electric use measured by the charging equipment and subtracted from the household billing meter and billed under Rate 74 time-of-use kWh rates. Peak hours are a period of eight consecutive hours between 1:00 p.m. and 9:00 p.m., Monday through Friday. All other hours are designated as Off-Peak hours. Rate 74 Peak kWh are priced the same as Residential Rate 1 and the Off-Peak kWh are priced at a cost-based reduced rate consistent with generation capacity and transmission costs avoided by charging during Off-Peak periods.

Residential customers who have charging equipment who do not utilize Rate 72 or Rate 74 service would be subject to all household service on Residential Rate 1 or Residential Time-of-Use Service Rate Schedule 11.<sup>1</sup>

*General Service Rate Schedule 6 EV Charging Equipment Exemption:* Non-residential customers are also eligible to take service under General Service Rate Schedule 6 which has a daily customer charge and a flat kWh rate. Where all service is restricted to electric vehicle charging station equipment available to the general public, the 200 kW and/or 7,600 kWh/month service limitations of this rate schedule will not be enforced. Without this exemption, the default rate schedule for usage above the service limitations would be Commercial and Industrial Time-of-Use Rate Schedule 63/65 which consists of a customer charge and TOU kW and kWh rates.

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<sup>1</sup> Each of these rate schedules also have companion service offerings with a Critical Peak Pricing rate design. These rate schedules (Residential Critical Peak Pricing Rate Schedule 9 and Residential TOU & Critical Peak Pricing Rate Schedule 14) could also serve as default service offerings for EV charging equipment that does not elect to take service on Rate 72 or Rate 74.

*Generic Special Contract for EV Bus Charging:* This generic special contract was approved by PUC Order dated December 8, 2021, in Case No. 21-4593-SC and is in effect through July 31, 2023. Similar to the General Service Rate Schedule 6 EV Charging Equipment Exemption, contract participants will not be subject to the 200 kW and/or 7,600 kWh/month service limitations of Rate 6. This contract is intended for the four GMP customers participating in the Vermont Agency of Natural Resources Electric School and Transit Bus Pilot Program; however any additional qualifying entities who wish to pilot electric bus charging equipment would be eligible to do so while the contract is in effect. The default rate classes for these customers would otherwise be General Service Rate Schedule 6 and Commercial and Industrial Time-of-Use Rate Schedule 63/65 if required by usage levels.

Respondent: Scott Anderson, Manager of Rates

- 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.

#### GMP Response

Since the EV rates were originally approved August 31, 2020,<sup>2</sup> 1,002 customers have signed up. 60% of these customers are enrolled on Rate 74 (time-of-use) and 40% are enrolled on Rate 72 (managed).

Currently, 36% of customers who utilized incentives related to EVs since the new rates became available are fully enrolled on one of the EV rates.<sup>3</sup> Customers who get a free Level 2 charger from GMP are required to connect their charger to the internet and enroll in one of our two EV rates within 60 days. However, we have found that many customers are struggling to find an electrician to install their charger due to labor shortages and other challenges during the pandemic. Out of concern for our customers' well-being, we have not yet sought to enforce the 60-day requirement and its associated penalty, and instead have been notifying customers of the need to connect. In addition to the regular outreach we have done via emails and calls to customers to help them enroll their charger and complete their EV rate enrollment, we are also about to launch a new online enrollment process on our web site that should provide another simple option for customers to get the charger and the rate. We will continue to monitor enrollment and barriers in order to further increase these numbers. We expect the percentage of customers enrolled will rise as we emerge from the pandemic and installation issues

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<sup>2</sup> The EV rates were originally approved in GMP's FY21 annual base rate proceeding, Case No. 20-1407-TF, by *Tariff Approval Order* dated August 27, 2020, and subsequently in GMP's FY22 annual base rate proceeding, Case No. 21-1963-TF, by *Tariff Approval Order* dated August 31, 2021.

<sup>3</sup> This includes both the purchase incentive and the free Level 2 charger; not all customers who access the purchase incentive seek out a free Level 2 charger. Among customers who have received a Tier III EV purchase incentive since September 2020, 78% received a free smart Level 2 charger. (Tesla currently does not have a charger that communicates with the platform.)

improve and we begin to enforce the 60-day enrollment requirement associated with a free charger.

Respondent: Scott Anderson, Manager of Rates; Graham Turk, Call Center Supervisor

- 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?

#### GMP Response

Both our managed charging (Rate 72) and time-of-use (Rate 74) tariffs have been extremely effective at directing load away from peak times. In 2021, Rate 72 customers have opted out of peak events at a rate of 1.99%, calculated by dividing the total number of opt outs by the total number of successful device contacts. Customers who opt out pay a high rate to charge during the event. Among Rate 74 customers in 2021, 95% of charging has occurred during the off-peak window, i.e. outside of 1:00 p.m. to 9:00 p.m., Monday through Friday.

We have gained invaluable experience administering these two rates. On Rate 74, many customers use a mobile application to delay charging until the start of the off-peak window. This has resulted in a large spike in charging right at 9:00 p.m. on weekdays. We had anticipated charging to be more spread out across the off-peak window. While this does not contribute to system coincident peak demand, as more people drive EVs, this could be re-examined to ensure best integration with the grid. One potential solution is to have cohorts with slightly different off-peak windows to stagger any large increases in demand.

On Rate 72, the default behavior during a peak event is to allow charging to be temporarily paused until the event ends. Customers need to explicitly opt out (through a text or email) to charge during the event. The low opt-out rate indicates that this “default opt-in” approach has been successful. We always want to make the easy choice the one that benefits all customers (including participants). Similar to the start of the off-peak window on Rate 74, the end of a peak event often sees a spike in demand among Rate 72 customers. We have begun to mitigate this by ramping up charging in increments after the event ends (e.g. limiting chargers to 50% of their maximum capacity for 30 minutes after the event ends).

Charger connectivity has been reliable. We receive data directly from the charging equipment to calculate the on- and off- peak consumption, which is backed out of the total home consumption measured by the AMI meter. We send automatic text and email alerts if a charger has been offline for three or more days, which is often caused by a weak Wi-Fi signal or a change in Wi-Fi settings. There have been a small number of cases where persistent connectivity problems require us to get involved directly with the charging station manufacturer. Any charging activity that is missed in the current billing cycle (e.g. due to an offline charger) is reflected in the first bill after connection is reestablished.

Lastly, we have seen the importance of providing a charging solution for customers at the time of vehicle purchase. Acquiring a charger is often the first thing new EV owners do after taking delivery of the vehicle (if not sooner). GMP customers can receive a free smart Level 2 charger with the purchase or lease of any EV, simply by checking a box on our EV rebate form (which is completed at the dealership). As noted above, an online option will also be available soon. These chargers are compatible with our EV rates, and all customers who receive a charger are required to enroll it in our device management platform and to sign up for either Rate 72 or Rate 74. While this model has been successful, we are also looking into direct-to-vehicle charging solutions; these would offer the same capabilities as a smart Level 2 charger but potentially at lower cost.

Respondent: Graham Turk, Call Center Supervisor; Scott Anderson, Manager of Rates

- 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.

GMP Response

This request is not applicable to GMP.

Respondent: Scott Anderson, Manager of Rates

GMP thanks the Commission for the opportunity to provide comments and data on its existing EV tariffs. Please do not hesitate to reach out with any questions.

Sincerely,



Scott Anderson  
Manager of Rates

cc: Service list (via ePUC)