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*Via ePUC*

Holly Anderson, Clerk  
Vermont Public Utility Commission  
112 State Street  
Montpelier, VT 05620-2701

**Re: Case No. 23-1364-INV – Public Utility Commission 2023 Investigation into Rates Related to Electric Vehicles**

Dear Ms. Anderson,

Green Mountain Power Corporation (GMP) provides the following comments as requested in the Commission’s August 23, 2023, Order in this proceeding. In its Order, the Commission requests comments on the following questions:

- *Should exemptions apply to PEV rates for customer classes or segments of customer classes where the rate has not advanced the goals of Section 33(b) of Act 55 of 2021 because participation in the rate has been minimal; or*
- *Should exemptions be limited to rates that have demonstrated that they encourage material participation and advance the goals of Section 33(b).*

**GMP Response:** GMP supports EV rates that both encourage the adoption of clean electric vehicles and share the benefits of increasing managed loads across all customers by lowering overall costs. In the initial years of deployment, GMP encourages the Commission to take a broad view of how proposed rates may advance the goals of Section 33(b) of Act 55 of 2021, particularly regarding enrollment. In our experience, customers want rates that are easy to understand and show a benefit other than just using a standard rate—changes in rate designs are not central to their daily experience and getting customer enrollment in new voluntary, opt-in rates can take time. When it comes to expanding EV adoption, rates are not a top barrier for drivers. Instead, EV rates are a complement to other work happening to expand charging stations and bring down the initial price of the vehicle. The criteria under Section 33(b)<sup>1</sup> are themselves broad, and no specific weighing of one over the others is required. Weighing participation more heavily than other criteria does not serve the State’s current overall EV adoption goals and could inadvertently limit innovation.

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<sup>1</sup> Those criteria are listed as: “...(1) efficient use of PEV loads consistent with objectives of least-cost integrated planning, set out in 30 V.S.A. § 218c, and 30 V.S.A. § 202(b) and (c); (2) participation in the PEV rates; (3) travel by PEV relative to available alternatives; and (4) greater adoption of PEVs.” See Act 55 of 2021, Sec. 33(b).

The Commission also requested the following information from utilities with implemented PEV rates:

- *The number of customers eligible for participation in the applicable rates (i.e., the rates for which the utility is seeking the exemption).*

**GMP Response:**

As described in previous responses filed in this proceeding and the 2022 investigation into EV rates, Case No. 22-4869-INV, GMP currently has two residential EV rates, Rate 72 and 74. For commercial customers, a Rate 6 exemption aimed at Level 3 fast charging allows EV charging loads over 200 kW (Level 3 fast chargers) to avoid transfer to Rate 63/65, a time-of-use rate with a ratcheted demand charge component that could discourage these deployments.

All residential customers billed under Rate 1 are eligible for Rate 72/74 if they install a compatible charger, provided by GMP or acquired independently. Residential customers billed under existing TOU rates can also enroll in Rate 72/74 and switch the remainder of their load to Rate 1.

From September 2020 to date, 4,396 GMP customers have received a Tier III EV purchase incentive. 3,720 customers have received a free smart Level 2 charger from GMP. 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. We are still seeing a challenge for customers to find an electrician to install their chargers in a timely fashion, sometimes causing a lag in enrollment. We are continuously working with customers on solutions to help ensure that these chargers are being installed in a timely way.

For commercial Rate 6 exemptions, at this time all eligible customers that would benefit from the Rate 6 exemption are participating. Currently, there are seven enrolled customers in this exemption. All Rate 6 customers are regularly reviewed for eligibility and if any accounts are flagged for transfer to Rate 63/65 because of load or usage, and appear to be an eligible EV charging load, we contact the customer to confirm, and update the account appropriately. In our billing system, our practice is to flag any new service installed as a separately metered and publicly accessible EV charging load to prevent transfer to Rate 63/65.

In addition, GMP is soon filing the next phase of our Flexible Load Management (FLM) pilot with Efficiency Vermont (EVT). We anticipate two customer cohorts within FLM 3.0. One of the cohorts will be a whole premise time-of-use rate with a critical peak pricing component replacing the traditional demand charge. This iteration of FLM will be available to a broad set of commercial customers meeting participation requirements, including commercial EV fleet applications. We will promote FLM 3.0 as a solution for commercial customers that are installing EVSEs for commercial fleets, providing the convenience of automated scheduling to control costs while sharing the potential for capacity benefits with the rest of our customers. There will be no limitation on the number of customers or MW that can be served by this pilot. We have also reviewed the Commission's recent order and, while GMP PEV offerings are available to a broad group of customers across customer classes, we expect to add an offering for

non-residential customers interested in Level 2 charging for workplace, multifamily buildings with common meters, and similar applications that would not see meaningful benefit from our Rate 6 exemption or FLM 3.0 Pilot. The level of shared benefit will be different than our residential Rate 72/74 offerings, and likely will vary based upon daytime usage profile at workplaces, for example, versus nighttime usage profile at multifamily buildings.

- *The number of customers that have elected to participate in each applicable rate.*

**GMP Response:**

Currently, there are 888 customers enrolled in Rate 72, 1,744 in Rate 74, and seven publicly accessible DC fast charger locations using the Rate 6 exemption.

- *The total loads that are eligible to participate in the applicable rates.*

**GMP Response:**

GMP interprets this request to seek the number of customers with EVSEs known to GMP that are eligible to be enrolled in one of the rates we offer.

As stated above, 3,720 GMP customers that have received a free Level 2 charger since September 2020 and could enroll in Rate 72/74 if they install the charger. Any customer eligible for the Rate 6 exemption is presumed to be currently participating. Rate 6 with the EV exemption is the default rate for an eligible customer setting up new service with GMP.

- *The total loads that participate in each applicable rate.*

**GMP Response:**

GMP interprets this question to seek information on the load and consumption patterns of the EVSEs enrolled in our rate programs.

2,632 GMP customers are currently enrolled in Rate 72/74, compared to the 3,720 customers with provided chargers that could do so. Year-to-date energy usage data for Rate 72/74 are shown below. Rate 72, with GMP controlled chargers shows almost 100% compliance with events, with only a 0.25% opt out rate. The Rate 74 time-of-use option shows that customers charged during non-peak hours more than 90% of the time. Both rates have proven effective in encouraging customers to shift their EV charging load to off peak hours, in turn supporting GMP’s demand management efforts.

<b>RATE 72</b>	<b>YTD 2023 Billed kWh</b>	<b>%</b>	<b>RATE 74</b>	<b>YTD 2023 Billed kWh</b>	<b>%</b>
<b>Peak</b>	3,707	0.25%	<b>Peak</b>	287,735	8.93%
<b>Off Peak</b>	1,501,984	99.75%	<b>Off Peak</b>	2,934,689	91.07%
<b>TOTAL</b>	<b>1,505,691</b>	<b>100.00%</b>	<b>TOTAL</b>	<b>3,222,424</b>	<b>100.00%</b>

For our Rate 6 exemption customers, the sum of the maximum (non-coincidental) loads of each participant from September 1, 2022 through August 31, 2023 was 3,027 kW, with a median of 429 kW and the highest at 803 kW. As detailed in our second annual EV Public Charging Rate 6 report, actual hourly load data indicates that maximum loads did not occur during critical hours that drive GMP's FCM and RNS marginal power costs.

- *The rate differentials that encourage both participation in the rate and then encourage meaningful responsiveness to either time-varying pricing or managed loads.*

**GMP Response:**

Both Rate 72 and 74 require a customer's residual service be on Rate 1, so the differential in cost per kWh for these EV rates is comparative to Rate 1. Off peak kWh under Rate 72 provides a savings of \$0.03761/kWh. Off peak kWh under Rate 74 provides a savings of \$0.04309/kWh.

For Rate 72, peak hours are fluid, based on peak demand events. Customers are notified leading up to a peak event and are given the option to participate or opt out of the event. Participation in the event requires no action from customers. Unless a customer actively opts out of the event their charger will receive curtailment information. Customers may opt out of the event through a link provided with the notice of a pending peak event. Charging during a peak event is billed at \$0.73388/per kWh. Nearly complete participation with peak event curtailment indicates that the cost differential between Rate 1 and peak Rate 72 is sufficient and the default opt in for curtailment events is not inhibiting customer participation and response.

For Rate 74, we have set peak hours as 1:00–9:00 pm Monday–Friday, hours typically consistent with system peak demands. So far in 2023, compliance with off peak charging is over 90%, indicating the rate differential is significant in encouraging customer participation. All chargers compatible with GMP's residential EV charging rates have a corresponding mobile app. The ease of setting a charging schedule within these apps further supports off peak charging.

For Rate 6, our second annual EV Public Charging Rate 6 report stated the rate differential for participating customers through the end of 2022:

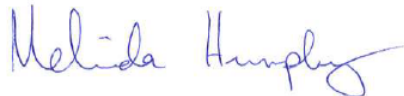
[T]he revenue that would have occurred on Rate 63/65 without the exemption equated to \$0.308/kWh, well in excess of the \$0.18366/kWh rate that these customers pay on Rate 6. This is due in large part to the relatively low load factor of these stations during 2022. The annual load factor of these stations, which ranged from 2% to 14%, would cause the demand charge component of the customer's bill to drive a higher effective \$/kWh rate if not for the Rate 6 exemption. Actual hourly load data also indicated that maximum loads did not occur during critical hours that drive GMP's FCM and RNS marginal power costs. Marginal energy costs were calculated using hourly LMP data multiplied by each charging station's hourly load profile. As expected, the infrequent use of this equipment resulted in an estimated calculation of combined marginal capacity,

regional transmission and energy that averaged \$0.137/kWh, still below the effective rate paid by these customers on the Rate 6 exemption.

See GMP EV Rate 6 Exemption Filing Letter, filed in Case No. 20-3832-TF, March 1, 2023. Analysis through the end of 2023 will be included in the third annual report that GMP will provide on March 1, 2024.

GMP looks forward to participating in the October 2<sup>nd</sup> workshop in this proceeding, including discussing the other topics listed in the Commission's recent order. GMP thanks the Commission for the opportunity to provide comments and data on our existing EV offerings. Please reach out with any questions.

Sincerely,



Melinda Humphrey  
Manager of Tariffs & Rates

cc: Service list (via ePUC)