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Filed in ePUC

September 16, 2019

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

Re: Bring Your Own Device (“BYOD”) Tariff

Dear Ms. Whitney:

Green Mountain Power (“GMP”) files for approval by the Vermont Public Utility Commission (“PUC”) tariff sheets implementing a new standalone BYOD offering for customers. GMP requests an implementation date of November 1, 2019 pursuant to 30 V.S.A. 225(a). GMP would welcome the opportunity to engage and answer any questions related to this filing as requested. The new offering will be designated as GMP’s BYOD Tariff. This filing consists of the following documents:

- Attachment 1 - GMP’s workpapers supporting the tariff;
- Attachment 2 - clean tariff sheets; and
- Attachment 3 - estimate of revenues and costs attributable to the new service pursuant to Rule 2.401(c).¹

Background and Explanation of Tariff

The GMP BYOD offering was developed as a result of GMP’s BYOD Pilot program, noticed under GMP’s Regulation Plan (the “Pilot”). The Pilot was amended as originally designed through collaboration with Renewable Energy Vermont (“REV”), which increased participation throughout our service territory and continues to deliver benefits to both participating and non-participating customers. GMP believes that it is important to continue incentivizing customers to install energy storage in a way that provides multiple options in energy storage manufacturers as

¹ GMP has indicated in its filing the forecasted revenues and costs on an NPV basis, per installed Energy Storage System, and the costs over three years if participation is at the maximum allowed limit of 5MW per year as set forth in the Tariff. Total revenues and costs will depend on the actual number of customers that participate in the offering.

well as a choice of installers. As we are already seeing the impacts of climate change in Vermont, this Tariff provides a way for customers to install clean backup energy, offering resilience against outages and reducing emissions from both backup generators and the grid during peak times. The Pilot previously included an incentive for electric vehicle chargers, as well as electric water heaters, however the Tariff will not include these items. The Pilot results showed very low water heater enrollment, with values that do not support moving that aspect of the Pilot to a tariffed offering. For EV chargers, GMP expects to file a tariff that will allow for managed charging at a discount equivalent or better than what would be implemented as part of this program, and therefore is not including EV chargers here to avoid duplicate offerings. Additionally, there will no longer be a monthly bill credit option for energy storage as the number of customers who chose this option was extremely low.

GMP committed to providing a Tariff for the BYOD offering in conjunction with recent proceedings and discussions with REV, and to provide customers interested in managed storage with an alternative to the Energy Storage Tariff GMP recently filed. Providing a BYOD Tariff offering to incentivize energy storage installations will give customers the option to participate with GMP using their choice of qualified equipment in a way that benefits all GMP customers.

Participating customers will purchase and install a compatible energy storage system and, upon installation, enroll their system into GMP's Energy Management Platform, providing GMP access to the energy storage system to manage during peak events. Customers also may choose a self-consumption option, providing GMP access to the energy storage system's data for measurement and verification purposes.

Customers will have the option to allow GMP to manage their system during called peak events for a duration of either three or four hours. In exchange, GMP will provide an upfront incentive of \$850 per kW for a 3-hour resource, and \$950 per kW for a 4-hour resource. For any systems sited within a constrained area of GMP's grid according to GMP's solar map at the time of installation, there will be an additional \$100 per kW incentive provided, raising the three hour and four hour resources to \$950 per kW and \$1,050 per kW respectively. A software integration fee of \$3.97 per month, as well as any manufacturer specific integration fees (these are outside GMP's control) will be billed to the customer on their monthly GMP utility bill as a non-bypassable charge. **There is an additional monthly charge of \$12.70 per kW for systems that fail to operate or communicate as required.**

The Customer Agreement for participation is attached to the BYOD Tariff enclosed with this filing.

As shown in the required statement of costs and revenues under Commission Rule 2.401(c) (Attachment 3), each kW of energy storage provided to GMP by participating customers is projected to have a positive net present value for all customers. There are no capital costs to GMP as a result of this Tariff; however the upfront incentive will be a Power Supply expense that is expected to be paid back over time through the use of each system. **Based on Pilot enrollment and average customer chosen capacity, GMP is estimating approximately half of the total available annual capacity will be enrolled each year. At this level of participation for three years, GMP would expect a positive net present value of \$2.4 million**

over a ten-year period. The accounting required under Rule 2.401(c) shows a negative net present value in the early years of the program as a result of the payment of upfront incentives to participating customers; however the overall value as a result of the increased distributed resources will deliver a positive value to all GMP customers.

GMP recognizes that this Tariff is a new, innovative way to treat localized, distributed grid services and has presented the full financial workpapers for the benefit of review by the Commission and Department. GMP's workpapers detail the method utilized to determine the one-time upfront incentives. The incentives are calculated using the most up-to-date forecast with a 10-year net present value of the benefit that each kW of energy storage is expected to provide to GMP customers. The overall methodology applied to the incentives in this Tariff is the same methodology GMP utilized in its BYOD pilot, updated to reflect current projections for the value of the benefits generated by use of the energy storage in regional markets. The methodology for the regional power supply benefits is the same as utilized in the Energy Storage Tariff currently under review by the Commission.

Overall, as shown in the attached workpapers, the incentive structure means that non-participating customers will benefit from participating customer's energy storage systems, and the program as a whole is expected to provide an overall net positive value for all customers. As with any tariff, GMP would expect to file amendments to the BYOD Tariff when the value changes underlying the cost and benefits analysis warrant doing so.

The Tariff will be offered for up to 5MW of installed energy storage capacity per calendar year. GMP has chosen the 5MW annual size in order to assure a contained, phased approach of storage deployment onto the system. This will assure that the storage assets reach their end of lives in a staggered fashion that allows for steady replacement of systems. The tariff is open to GMP residential customers and small commercial customers (General Service) that do not take service under a time-of-use energy tariff. Because of the varying sizes and continuously evolving residential energy storage systems available on the market, the number of participants may fluctuate year to year to reach the available annual capacity stated above. Customers can participate in the program under the requirements and terms set forth in the Tariff and Customer Agreement. Just as in similar pilot programs, Customers will be able to determine how much capacity of their energy storage system they make available to GMP, and while GMP will have the ability to discharge each system, GMP will make every effort to avoid depletion of the energy storage systems immediately prior to storm events within its discretion.

GMP strongly believes that the BYOD Tariff, in conjunction with ongoing pilots and the Energy Storage Tariff GMP recently filed, will continue driving adoption of a multitude of energy storage systems and smart electrification of the transportation sector in Vermont through third-parties, and will encourage customers who participate to partner with GMP to create the grid of the future, featuring local load management of dozens of individual resources while also helping to reduce carbon emissions related to peak energy demand times.

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Proposed Effective Date:

GMP requests an implementation date of November 1, 2019, which is forty five days from the date of this filing, and welcomes the opportunity for review as needed.

Conclusion:

We are excited to offer this BYOD program as a Tariff, and thank the Commission for its review. If you have any questions or need further information, please contact me.

Sincerely,



Josh Castonguay
Vice President, Chief Innovation Executive
Enclosures

cc: Department of Public Service
Renewable Energy Vermont
Efficiency Vermont