

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 23-1335-TF

Tariff filing of Green Mountain Power Corporation for revisions to Energy Storage System Service and Bring Your Own Device Program Tariffs to be effective June 10, 2023	
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Order entered: 08/17/2023

FINAL ORDER APPROVING TARIFF REVISIONS

In this Order, the Vermont Public Utility Commission (“Commission”) adopts the following proposal for decision.

PROPOSAL FOR DECISION

I. INTRODUCTION

This case involves the Commission’s investigation into Green Mountain Power Corporation’s (“GMP”) proposed tariff revisions for its Energy Storage System (“ESS”) and Bring Your Own Device (“BYOD”) residential battery-storage programs. GMP seeks to eliminate the existing 5 MW capacity cap for both programs and update various installation and equipment costs for the ESS program. As discussed below, I recommend that the Commission approve GMP’s proposed tariff revisions.

II. PROCEDURAL HISTORY

On April 26, 2023, GMP filed proposed tariff sheets reflecting revisions to the ESS and BYOD programs. GMP’s proposed tariff revisions were supported by a cover letter that provides a narrative description of and justification for the proposed revisions. GMP also provided financial analyses and revenue and cost projections for both programs.

On May 26, 2023, the Vermont Department of Public Service (“Department”) filed comments recommending that the Commission approve GMP’s proposed tariff revisions.

On June 8, 2023, the Commission issued an order opening an investigation into GMP’s proposed tariff revisions and appointing me as the Hearing Officer for this case.

On June 22, 2023, I held a scheduling conference for this case, which was attended by representatives from GMP and the Department.

On June 26, 2023, I issued information requests to GMP.

On June 29, 2023, GMP filed responses to my information requests.

During this proceeding, the Commission also received written comments from two members of the public, both of which supported GMP's proposed tariff revisions.

No party has requested an evidentiary hearing or objected to the information filed in this case. Accordingly, the following documents are admitted as if presented at a hearing: GMP's proposed tariff sheets for the BYOD and ESS programs (the "ESS Tariff" and "BYOD Tariff"); GMP's Attachments 1, 2, and 5, which were filed on April 26, 2023, in support of the tariff revisions; GMP's April 26, 2023, Cover Letter ("GMP Cover Letter"); GMP's revised Attachments 3 and 5, which were filed on May 18, 2023; the Department's comments filed on May 26, 2023; and GMP's Responses to my Information Requests, which were filed on June 29, 2023 ("GMP Responses").¹

III. FINDINGS

Current ESS and BYOD Programs

1. The ESS and BYOD programs were both initially approved by the Commission on May 20, 2020, in Case Nos. 19-3167-TF and 19-3537-TF, respectively. GMP Cover Letter at 2.
2. The ESS program allows participating GMP customers to lease residential energy storage systems installed by manufacturer-certified independent installers. Customers can choose between a monthly lease payment of \$55 over ten years or a one-time, \$5,500 payment per system. The program also includes an additional five-year renewal option. Each customer participating in the ESS program leases two Tesla Energy Storage 2 systems with integrated inverter units and one Tesla Gateway. GMP charges a \$450 termination fee for any customers that terminate the lease before the conclusion of the ten-year lease term. GMP also charges a pro-rated equipment fee for any customers that terminate the lease program and do not return the battery equipment to GMP. GMP Cover Letter at 2; ESS Tariff at Sheets 289-290.

¹ If any party has an objection to any of these documents being entered into evidence, the party shall submit its objection within 14 days of the date this Order is entered.

3. The ESS program currently includes a 5 MW annual capacity cap, which is the equivalent of approximately 500 installations per year. GMP Cover Letter at 3. ESS Tariff at Sheet 293.

4. Approximately 2,500 customers with a total installed storage capacity of approximately 22 MW currently participate in the ESS program. GMP Cover Letter at 4.

5. The ESS program is fully subscribed for 2023. GMP maintains a waitlist for future availability in the program. That waitlist currently exceeds 1,000 customers, which is greater than the allowable capacity for both 2024 and 2025. GMP Responses at 8.

6. The ESS program will remain available for customer participation through September 30, 2026, unless otherwise ordered by the Commission. ESS Tariff at Sheet 289.

7. Customers participating in the BYOD program purchase and install a compatible energy storage system of their choosing and enroll their system into GMP's Energy Management Platform upon installation. GMP provides upfront incentive credits to participating customers ranging from \$850 to \$1,050 per kW for allowing GMP access to the customer's energy storage system to manage during peak events for either three- or four-hour periods. Like the ESS program, the BYOD program includes an annual 5 MW program cap. GMP Cover Letter at 5; BYOD Tariff at Sheets 312-313.

8. For the BYOD program, 193 customers enrolled between 2020 and early 2023 and approximately 100 customers are expected to enroll over the remainder of 2023. GMP Cover Letter at 6.

9. Like the ESS program, availability to participate in the BYOD program will conclude on September 30, 2026, unless otherwise ordered by the Commission. GMP Cover Letter at 6; BYOD Tariff at Sheet 311.

GMP's Proposed Revisions to the BYOD and ESS Programs

10. GMP seeks to remove the existing 5 MW program caps for both the ESS and BYOD programs. GMP Cover Letter at 3-5; ESS Tariff at Sheet 293; and BYOD Tariff at Sheet 314.

11. For the ESS program, GMP also seeks to increase the total program lease cost for each participating customer from \$16,300 to \$22,000 to reflect inflationary pressures and

increased installation costs. The base equipment charge for early termination will also increase from \$14,100 to \$18,000. GMP Cover Letter at 5; ESS Tariff at Sheets 290-292.

12. Although the total cost of the ESS installations will increase, GMP will maintain the current \$55 monthly customer lease payment for participating customers. GMP can maintain the \$55 monthly lease payment without adversely affecting the overall financial performance of the ESS program because the federal Inflation Reduction Act provides a 30% investment tax credit for the energy storage systems that will be used in ESS program installations. GMP Cover Letter at 5.

13. GMP will also maintain the existing incentive credit amounts for participation in the BYOD program. BYOD Tariff at Sheet 312.

14. GMP conducted financial analyses in support of the proposed revisions to the BYOD and ESS programs. For the ESS program, GMP's analysis shows that each installation will result in a \$23,555 installed capital investment (\$22,000 for the system with an additional \$1,355 of capitalized administrative and general ("A&G") costs) and a lifetime net present value revenue requirement, or direct cost recovery, of \$18,667. GMP also projected revenues for each system based on customer payments, reduced Forward Capacity Market ("FCM") and Regional Network Service ("RNS") obligations, energy savings, and Renewable Energy Standard Tier 3 benefits. Those revenues are estimated to be \$21,652 per system, resulting in a projected positive lifetime net-present value of \$2,749 per individual customer installation. Assuming a rate of 600 installations per year, GMP projects an aggregate overall lifetime net-present value of \$4,887,629 for the ESS storage systems installed over the next three years. Attachments 2 and 3.

15. GMP's financial analysis for the BYOD program projects that each installation will have total costs of \$1,308, which includes the customer incentive, software payments, and GMP's capitalized A&G expense. Each system is also projected to have \$1,697 of total revenues, which is based on projected FCM and RNS savings and software fees passed on to the customer, resulting in a projected \$389 net-present value per system. Assuming a rate of 100 installations per year, GMP projects that the BYOD program will yield a net-present value of \$1,117,897 for new batteries that enroll in the program over the next three years. Attachments 4 and 5.

IV. DISCUSSION

I recommend that the Commission conclude that GMP's proposed revisions to the ESS and BYOD programs are just and reasonable. GMP has shown that demand for these residential storage programs, particularly the ESS program, has significantly outpaced the annual 5 MW capacity limits initially set by the Commission in Case Nos. 19-3167-TF and 19-3537-TF. Recent storm events throughout GMP's service territory, which have led to widespread outage events over the past year, are also likely to continue to place upward pressure on that demand. More importantly, GMP has presented detailed financial analyses to demonstrate that the ESS and BYOD programs can be expanded in a manner that yields positive financial benefits for all GMP customers. Based on these factors, I recommend that the Commission approve GMP's proposed tariff revisions.

I note, however, that increasing the capacity and costs associated with the ESS program will likely infringe on the capital expenditure and innovative spending limits included in GMP's current multi-year rate plan ("MYRP"), which was approved by the Commission in Case No. 21-3707-PET.² The MYRP includes averaged annual overall capital spending limits for GMP of approximately \$117 million, inclusive of \$10 million that is forecasted to be directed to new initiatives spending (including the ESS program). If the ESS program expands at the rate projected by GMP, it alone will exceed the \$10 million of capital expenditures that are intended to be directed at new initiatives under the MYRP. Therefore, eliminating the program cap for these battery storage programs will likely result in the Commission having to reconsider the capital spending limitations included in the MYRP in the near-term future.

I also note that the financial performance of the ESS and BYOD programs is dependent on battery performance and revenue projections for costs that can be challenging to predict with precision, such as future FCM and RNS charges. Although GMP has presented plausible financial projections for these programs, they are not without financial risk to GMP and its broader class of ratepayers. Eliminating the overall program cap for these programs will exacerbate that underlying risk.

² *Petition of Green Mountain Power Corporation for approval of a new Multi-Year Regulation Plan pursuant to 30 V.S.A. Section 209, 218, and 218d, Case No. 21-3707-PET, Order of 8/31/22.*

On balance, however, GMP has demonstrated that the potential benefits of the program outweigh the potential impacts on the MYRP and overall financial risk associated with these programs. As aptly stated by the Department in its comments:

GMP's proposed tariff amendments to its ESS and BYOD Tariff Programs will allow GMP to continue providing options for reliable, backup energy to participating GMP customers while expanding the programs to welcome more participants. During a time of increased storm severity and power outages, access to reliable backup energy is crucial.³

Nonetheless, it will be important for the Commission and the Department to closely monitor both the rate of expansion and performance of these programs to ensure that any underlying financial risks have not materialized and the impacts on the capital limits included in the MYRP are as minimal as possible. Accordingly, if the Commission approves the revised tariffs, I recommend that the approval be conditioned on requiring that GMP continue to annually report on the metrics that were included in the Commission's May 20, 2020, final order approving the ESS and BYOD tariffs in Case Nos. 19-3167-TF and 19-3537-TF, which include the following:

- (1) the number of systems and total kW installed under each tariff;
- (2) the number of installers participating in each tariff;
- (3) the names of the installers;
- (4) the battery type/size installed by manufacturer;
- (5) the number of monthly peaks during which discharge successfully occurred during the RNS peak and the total capacity available during discharge;
- (6) whether the batteries were successfully discharged during the ISO New England annual forward capacity peak and the total capacity available during that discharge;
- (7) the financial savings from peak shaving actually achieved;
- (8) the total lease revenue;
- (9) any payments requested and/or received from [the battery manufacturer] under the performance guarantee;
- (10) the annual program costs by program (including cost to service debt and equity associated with the investments for the ESS Tariff);
- (11) the number and capacity of systems defaulting on lease payments; and

³ Department Comments at 2.

(12) the number and capacity of systems that fail to respond to more than three discharge signals.

V. CONCLUSION

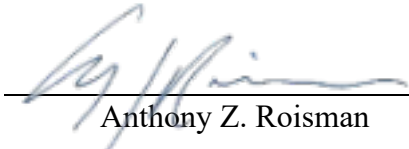
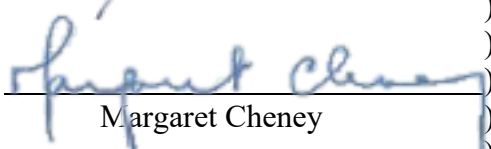
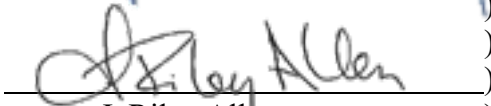
This Proposal for Decision has not been circulated to the parties pursuant to 3 V.S.A. § 811 because it is not adverse to any party.

VI. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Vermont Public Utility Commission (“Commission”) that:

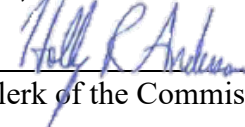
1. The findings, conclusions, and recommendations of the Hearing Officer are adopted.
2. Green Mountain Power Corporation’s proposed revisions to its Bring Your Own Device (“BYOD”) and Energy Storage System (“ESS”) tariffs, including the removal of the 5 MW capacity cap for both programs, are approved.
3. GMP must continue to annually report on the metrics included in the Commission’s May 20, 2020, final order approving the ESS and BYOD tariffs in Case Nos. 19-3167-TF and 19-3537-TF.

Dated at Montpelier, Vermont, this 17th day of August, 2023.

 _____)) PUBLIC UTILITY)) COMMISSION) OF VERMONT
Anthony Z. Roisman)	
_____)	
 _____)) PUBLIC UTILITY)) COMMISSION) OF VERMONT
Margaret Cheney)	
_____)	
 _____)) PUBLIC UTILITY)) COMMISSION) OF VERMONT
J. Riley Allen)	

OFFICE OF THE CLERK

Filed: August 17, 2023

Attest: 
_____)
Clerk of the Commission

Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Commission (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: puc.clerk@vermont.gov)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Commission within 30 days. Appeal will not stay the effect of this Order, absent further order by this Commission or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Commission within 28 days of the date of this decision and Order.

PUC Case No. 23-1335-TF - SERVICE LIST

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