

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. 25-0719-TF

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| Tariff filing of Green Mountain Power Corporation for a proposed Zone 4 Energy Storage tariff to be effective with bills rendered on or after May 30, 2025 | |
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**FIRST SET OF INFORMATION REQUESTS
SERVED UPON GREEN MOUNTAIN POWER CORPORATION
BY THE VERMONT DEPARTMENT OF PUBLIC SERVICE**

The Vermont Department of Public Service (“Department” or “DPS”), by its counsel, Ben Civiletti and Henry Mauck, hereby serve this First Set of Information Requests on Green Mountain Power Corporation (“GMP”), in accordance with Vermont Public Utility Commission (“Commission” or “PUC”) Rule 2.214 and 2.230, in the above-referenced matter. The Department requests that GMP answer the requests herein, conforming to Commission Rule 2.230, and deliver its answers and all requested documents and materials to the Department’s offices in Montpelier no later than July 7, 2025. Please provide GMP’s answers in electronic format (i.e. word document or other standard file form readable by the Department) and please provide any spreadsheets in an electronic format.

INSTRUCTIONS

1. Reproduce the request being answered above your response thereto, pursuant to Commission Rule 2.230(M).
2. Responses to any and all Department requests, either contained herein or filed subsequently, should be submitted to the Department as soon as GMP is able to provide an answer or production. In other words, GMP should not withhold a response to any requests for which it has responsive data, documents, etc. until GMP is able to fully answer all pending requests when a reply is forthcoming for some questions.
3. Commission Rule 2.230(M)(3) requires that the response to each request is to be made under oath by a person competent to testify concerning the response, as well as all documents and exhibits produced as part of said response. When responding to each request please state: (1)

the name(s) and title(s) of the person(s) responsible for preparing the response; (2) the administrative unit which maintains the records being produced or the data from which an answer was derived; and (3) the date upon which the question was answered.

4. Where requested information is unavailable in the exact format requested in the question, or is not available for the entire range (e.g. a span of time, such as years, or other periods and classifications) requested in a series, please provide all available information that is responsive to the subject matter of the question.

5. These requests shall be considered continuing and shall be supplemented and updated as provided for in Commission Rule 2.230(D). GMP must supplement, update, correct, and change its answers to be consistent with all relevant information as it becomes available to GMP. For example, actual data must be substituted for estimated data. Responses to requests for information regarding a period of time not entirely in the past (or for which complete actual data is yet to be available) should include all actual data available when requested and be supplemented with the remaining actual data as it becomes obtainable.

6. Whenever and wherever responses include estimated information please include an explanation, or reference to a previous explanation, of the methodology and calculations used to derive the estimates.

7. Some of the Department's requests may reference a particular portion of GMP's filing. Notwithstanding the specific citation, all such requests should be understood to seek all available information that is responsive to the question.

8. With respect to each document produced by GMP, please identify the person who prepared the document and the date on which it was prepared.

9. If any interrogatory or request necessitates a response that GMP believes is totally or partially privileged, please state the complete legal and factual basis for the claim of privilege as described in Commission Rule 2.230(A)(6) and respond to all parts of the interrogatory or request of which no claim of privilege is asserted.

10. If any interrogatory or request is objected to in whole or in part, please describe the complete legal and factual basis for the objection and respond to all parts of the interrogatory or request to the extent to which it is not objected. If an objection is made regarding any requested document(s), please identify the document by author, title, date, recipient(s), and generally describe the nature and subject matter of the document(s) in addition to providing the complete legal and factual basis for the objection.

11. To expedite the discovery process and the resolution of this case, if GMP wishes to have clarification on any of these information requests it should contact the Department as soon as possible and before the deadline for response indicated above.

12. The Department reserves the right to submit additional information requests to GMP.

DEFINITIONS

13. “Identify,” when used in reference to natural person(s) or legal entities shall be interpreted to request the full name and current business address of said person(s) or entities.

14. “GMP,” as used herein, shall refer to Green Mountain Power Corporation.

15. “Document,” as used herein, shall be construed as broadly as possible to encompass any and all means and media by which information can be recorded, transmitted, stored, retrieved, or memorialized in any form. “Document” shall also include all drafts, copies, or versions which differ in any respect from the original. All spreadsheets submitted must have all formulae accessible and intact.

16. “Petition” shall mean GMP’s Petition and associated attachments, including prefiled testimony and exhibits, filed in the above captioned docket with the Vermont Public Utility Commission, unless context indicates otherwise.

17. “Commission” means the Vermont Public Utility Commission.

18. “FY” means Fiscal Year..

19. “ZOI” means GMP’s Zero Outages Initiative.

20. “SAIDI” means System Average Interruption Duration Index.

21. “CAIDI” means Customer Average Interruption Duration Index.

22. “SAIFI” means System Average Interruption Frequency Index.

23. “MYRP” means GMP’s Multi-Year Regulation Plan.

24. “IRP” means an Integrated Resource Plans under 30 V.S.A. § 218c.

25. “BESS” means Battery Energy Storage System.

26. “ESS” means Energy Storage Systems.

27. “ESAP” means Energy Storage Access Program.

28. “BYOD” means Bring Your Own Device.

29. “Bring Your Own Device” means GMP’s Bring Your Own Device tariff.
30. “O&M” means Operations and Maintenance.
31. “T&D” means Transmission and Distribution.
32. “A&G” means Administrative and General.
33. “DER” means Distributed Energy Resources.
34. “VSPC” means Vermont System Planning Committee.

**FIRST SET OF INTERROGATORIES AND REQUESTS TO PRODUCE SERVED
UPON GREEN MOUNTAIN POWER CORPORATION**

Q.DPS.GMP.1-1. Please provide a list of all GMP owned and contracted energy storage resources including but not limited to GMP's Energy Storage System Tariff, Energy Storage Services Agreements, and GMP-owned batteries.

- a. Please quantify the cost of each peak-shaving resource (\$/kW-month) on an average annual and long-term levelized basis.

Q.DPS.GMP.1-2. Please provide a calculation of the proposed Zone 4 tariff's cost of peak shaving (\$/kW-month) on an average annual and long-term levelized basis from exhibit GMP-JC-3.

Q.DPS.GMP.1-3. Please quantify any monetary resilience or T&D deferral benefits GMP's Energy Storage System Tariff provides and the costs to achieve said benefits

- a. How do these compare to the expected Zone 4 tariff costs and benefits?

Q.DPS.GMP.1-4. In Case No. 23-3501-PET, witness Michael Burke states that it is very costly to restore service after significant storms and provides Exhibit GMP-MB-4 totaling GMP's Major Storm Spending from 2013-2023 to support GMP's investments in ZOI resilience measures.

- a. What type of investments or cost containment efforts has GMP made to minimize restoration costs prior to pursuing ZOI measures?

Q.DPS.GMP.1-5. Please estimate the amount of major storm costs that will be avoided by the Zone 4 tariff investments.

Q.DPS.GMP.1-6: Please explain in detail how GMP calculates and allocates capitalized Administrative and General (A&G) expenses for energy storage projects under the proposed Zone 4 Energy Storage Tariff.

- a. Please include the formula or burden rate applied and the components included in the A&G allocation.

Q.DPS.GMP.1-7: In reference to Exhibit GMP-JC-4, please explain the basis for including “Capitalized A&G” as a “Total Revenue” or benefit in the financial model.

- a. Please provide any internal or external accounting guidance GMP relies on to support this classification as a benefit in a cost-benefit test.

Q.DPS.GMP.1-8: Please clarify whether the inclusion of Capitalized A&G in the “Total Revenue” section of Exhibit GMP-JC-4 reflects actual cash inflows, avoided expenditures, or some other form of economic benefit to ratepayers.

Q.DPS.GMP.1-9: Has GMP included similar Capitalized A&G allocations as benefits in the cost-benefit analysis of other regulated programs (e.g., ESS, BYOD, ESAP)?

- a. If so, please provide those examples and any justification offered.

Q.DPS.GMP.1-10: Please explain whether the A&G labor and overheads capitalized to the Zone 4 program would otherwise be applied to other capital projects.

- a. If so, does this reallocation affect the scope, timing, or costs of those other projects?

Q.DPS.GMP.1-11: Is GMP asserting that the Zone 4 Energy Storage program creates incremental ratepayer value specifically due to the capitalization of A&G?

- a. If so, please explain what new value is created by this accounting treatment and how it differs from rate recovery of other capital projects.

Q.DPS.GMP.1-12: Please provide a revised version of Exhibit GMP-JC-4 that excludes the “Capitalized A&G” line item from the revenue/benefit section and shows the resulting Net Present Value under Assumption Sets A and B.

Q.DPS.GMP.1-13: Please explain whether GMP believes that redeploying internal labor or overhead from other projects to the Zone 4 initiative constitutes a financial benefit to ratepayers.

- a. If so, identify any cost offsets or avoided expenses that result from such redeployment.

Q.DPS.GMP.1-14: Has GMP performed any analysis to demonstrate that labor or overheads being capitalized to the Zone 4 program were under-utilized prior to redeployment?

- a. If so, please provide that analysis.

Q.DPS.GMP.1-15: Does GMP agree that in the absence of measurable avoided costs or external revenues, treating capitalized internal labor as a “benefit” in a cost-benefit test may lead to overstatement of program value?

- a. Please explain your position.

Q.DPS.GMP.1-16: Please state whether GMP has conducted a formal least-cost alternatives analysis comparing the Zone 4 Energy Storage Tariff to other solutions that could deliver equivalent or greater reliability, resiliency, and grid benefits.

- a. If so, please provide the results of that analysis.
- b. If not, please explain why such an analysis was not conducted.

Q.DPS.GMP.1-17: Please identify and describe any alternative technologies, programs, or infrastructure strategies GMP evaluated or considered in connection with the Zone 4 resiliency objectives.

- a. If no alternatives were considered, please explain why not.

Q.DPS.GMP.1-18: Please provide any cost-effectiveness comparison or modeling GMP has performed to evaluate centralized energy storage systems relative to the distributed residential battery deployments proposed under the Zone 4 Storage Tariff, including assumed capital and O&M costs, dispatch values, and locational grid benefits.

- a. If no such comparison was performed, please explain why not.

Q.DPS.GMP.1-19: Has GMP performed any marginal cost analysis or rate impact modeling to assess whether the proposed deployment in Zone 4 provides the lowest cost per avoided outage minute, avoided kWh during peak, or avoided system investment (e.g., deferred T&D upgrades)?

- a. If so, please provide any results.
- b. If not, please explain why such an analysis was not conducted.

Q.DPS.GMP.1-20: In GMP’s view, what constitutes the appropriate cost-effectiveness standard for evaluating the Zone 4 Storage Tariff under Vermont’s least-cost planning statutes and related regulatory principles (e.g., 30 V.S.A. §§ 202a, 218c, 218d(a)(1), Commission Rule 4.400)?

- a. Please explain how the proposal meets that standard.

- b. If GMP believes a least-cost standard does not apply in this context, please explain why.

Q.DPS.GMP.1-21: Has GMP used any least-cost planning framework, model, or tool from its Integrated Resource Plan (IRP) process to evaluate or prioritize the Zone 4 proposal?

- a. If not, please explain why not and whether GMP believes this project should be considered outside of IRP least-cost planning protocols.

Q.DPS.GMP.1-22: Please explain whether the proposed Zone 4 energy storage systems were selected over other investments based on monetized avoided costs (e.g., capacity, energy, regulation, T&D deferral).

- a. If not, please explain the decision-making framework used to support the selection of residential storage as the preferred investment.

Q.DPS.GMP.1-23: Has GMP conducted or commissioned any system-wide or circuit-level engineering or economic studies to evaluate whether other investments could achieve similar or better reliability metrics (e.g., SAIDI, SAIFI) at lower cost?

- a. If so, please provide the results of those studies.
- b. If not, please explain why such studies were not undertaken.

Q.DPS.GMP.1-24: Please identify any constraints, statutory interpretations, or Commission directives GMP believes exempt this proposal from a formal least-cost alternatives analysis.

- a. If GMP believes no such exemption applies, please state so explicitly.

Q.DPS.GMP.1-25: Please confirm whether the proposed Zone 4 Energy Storage Tariff constitutes the implementation mechanism for the energy storage component proposed in Case No. 23-3501-PET.

- a. If not, please explain the relationship between the two proposals.

Q.DPS.GMP.1-26: Please identify any evaluation frameworks GMP will use to track cost-effectiveness over time.

- a. Please specify whether they will include performance targets or quantifiable metrics.

Q.DPS.GMP.1-27: Please identify the specific performance metrics and associated reporting schedule GMP will use to assess the success of this program. Include any targets related to load reduction, reliability, or market revenue.

- a. Please indicate whether these metrics are consistent with those used in the MYRP or other DER programs.
- b. If different, explain why the deviations are appropriate for the Zone 4 Energy Storage Tariff.
- c. Provide the specific quantitative metrics GMP will use to measure cost-effectiveness, reliability improvements, and ratepayer benefits—such as peak load reduction (kW), outage mitigation (e.g., SAIDI/SAIFI), energy cost savings, Tier 3 credit generation, and ISO-NE market revenue.
- d. Describe any baseline benchmarks or targets GMP has established for these metrics, and how GMP will report and evaluate progress over the program lifecycle.

Q.DPS.GMP.1-28: How has GMP designed this program to ensure equitable access and transparent eligibility?

- a. Describe any targeting criteria or outreach protocols.

Q.DPS.GMP.1-29: Please describe how GMP is ensuring that costs, including administrative overhead such as capitalized A&G, are being tracked and allocated in a manner that avoids double-counting or overstatement of benefits.

Q.DPS.GMP.1-30: Please explain whether GMP intends to seek future Commission review of prudence or cost-effectiveness outcomes for this program.

- a. If not, please explain how accountability will be maintained.
- b. If yes, please describe whether the post-implementation review will include reporting and analysis of the metrics identified in response to PSD-GMP-22.

Q.DPS.GMP.1-31: Has GMP conducted any updated analysis of least-cost alternatives or benefit assumptions in light of current system conditions or market trends? If so, please provide any results.

Q.DPS.GMP.1-32: GMP indicated in Case No. 23-3501-PET that storage was a lower-cost option for Zone 4 resilience compared with hardening and undergrounding. *See, e.g.*, Case No. 23-3501-PET, Prefiled Direct Testimony of Josh Castonguay at 25, 30 (10/9/23), Prefiled Rebuttal Testimony of Tiana Smith at 18 (4/15/24).

- a. Please provide any update to that assessment.
- b. Please provide analysis of other alternatives considered, including any combination of accelerated vegetation management efforts.
- c. Please include any analysis of savings achieved by reduced storm costs in any scenario.

Q.DPS.GMP.1-33: Has GMP's ability to predict monthly peaks decreased?

- a. If so, what is the rate of change in that ability over the last 1 year? Over the last 5 years?

Q.DPS.GMP.1-34: Is GMP aware of investments in peak shaving technologies or flexible load management efforts being made in other New England states to reduce their share of the regional network service charges?

- a. Will investments made by stakeholders in other New England states affect GMP's ability to predict and respond to monthly peaks?
- b. If yes, how?

Q.DPS.GMP.1-35: Under the filed analysis, in what year did the cumulative rate payer impact net positive?

- a. Please provide answers both with and without A&G included.

Q.DPS.GMP.1-36: Please confirm that the warranty period on the proposed Zone 4 batteries is 10 years.

Q.DPS.GMP.1-37: Does GMP expect that Zone 4 batteries will be operated to increase headroom for renewable energy generation deployment?

- a. If so, will the costs of deployment for the purpose be allocated to renewable energy developers?

- b. How will deploying storage for this purpose impact the benefit/cost analysis of the Zone 4 tariff?

Q.DPS.GMP.1-38: Please describe any specific T&D infrastructure projects that GMP expects will be deferred due to Zone 4 battery storage.

- a. Are these projects related to load growth?
- b. If so, have they been presented to the VSPC via the geotargeting subcommittee pursuant to processes adopted in Commission Dockets 7873 and 7874?

Q.DPS.GMP.1-39: Please confirm which 2024 AESC counterfactual was used to value T&D investments and whether that counterfactual assumes no energy efficiency or load management in New England.

- a. If a “no efficiency” baseline is used, why is that an appropriate assumption to use for these storage investments?

Q.DPS.GMP.1-40: Did GMP analyze penetration of Zone 4 customer uptake under different customer contribution levels?

Q.DPS.GMP.1-41: Referring to the Prefiled Testimony of Mike Burke in Case No. 23-3501 at 11 (10/9/23), GMP discussed the importance of a variety of storage project types and sizes – residential but also community-scale storage and microgrids.

- a. Is it correct that GMP’s Zone 4 Storage Tariff proposes residential storage only, and if so, why?

Q.DPS.GMP.1-42: In Case No. 23-3501, GMP proposed to invest \$20 million of the \$30m proposed for storage investments in residential storage to complete full ZOI upgrades on the EJ-G7 and 56G1 circuits and the remaining \$10 million on storage systems elsewhere.

- a. Please provide the anticipated breakdown of the \$30m across the four identified circuits.
- b. How did GMP select the two additional circuits (CH-G11 and DM-G6) for eligibility in the proposed Zone 4 Storage Tariff? Please discuss all factors in this analysis.
- c. Would deployments in the two additional circuits cover all Zone 4 customers on those circuits, and if yes, did GMP consider any other approaches for allocating batteries beyond the EJ-G7 and 56G1 circuits aside from full-circuit treatment on those two

additional circuits (for example, allocating any additional batteries to customers dependent upon electricity for medical devices only, but across more circuits)?

- d. What does GMP anticipate learning from deployment in the two additional circuits that it will not otherwise learn from the deployments in the EJ-G7 and 56G1 circuits, and how would that help inform any potential future phases of ZOI?

Dated at Montpelier, Vermont this 20th Day of June 2025.

VERMONT DEPARTMENT OF PUBLIC SERVICE

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