

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 18-1633-PET

Petition of Green Mountain Power Corporation for approval of a multi-year regulation plan pursuant to 30 V.S.A § 209, 218, and 218d	
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DEPARTMENT OF PUBLIC SERVICE'S RESPONSES TO THE GREEN MOUNTAIN POWER CORPORATION'S SECOND SET OF INTERROGATORIES, REQUESTS TO PRODUCE, AND REQUESTS FOR ADMISSION

The Department of Public Service (the "Department") hereby provides the following responses to the Second Set of Interrogatories, Requests to Produce, and Requests for Admission served on the Department by the Green Mountain Power Corporation ("GMP"). The Department is serving two copies of these responses on GMP.

GENERAL OBJECTIONS

1. The Department objects to any instructions contained in GMP's discovery requests to the extent such instructions purport to place on the Department greater requirements or reserve greater rights to GMP than are permitted by the Vermont Rules of Civil Procedure as made applicable to Commission proceedings through Commission Rule 2.214(A).
2. The Department objects to any request for information or production of document(s) that is (or are) subject to the attorney-client privilege, constitute work product, are protected under state or federal law or are proprietary, competitively sensitive or confidential, constitute draft and/or non-final documents and/or constitute communications containing or concerning any of the above.
3. The Department objects to the discovery requests to the extent that they: (a) are overbroad or unduly burdensome; (b) are cumulative; (c) call for the production of documents not in the possession, custody, or control of the Department; (d) call for the review, compilation, or production of publicly available documents that could be obtained by the requesting party in a less burdensome manner, including on a public website; (e) call for the review, compilation and/or production of documents already in GMP's possession, custody, or control; (f) are vague and/or ambiguous; (g) seek information not reasonably calculated to lead to the discovery of admissible evidence; or (h) call for the review, compilation, or production of a voluminous number of documents at great expense to the Department.
4. Each of these General Objections shall be incorporated by reference into the below-referenced objections and responses as if expressly restated therein. The Department does not hereby waive any objections, and it reserves the right to later raise any additional, available objections.

RESPONSES TO INDIVIDUAL DISCOVERY REQUESTS

Requests for All Witnesses

Q.GMP.2-1 For each witness for whom DPS has submitted surrebuttal testimony:

- a) **Please identify and produce all documents prepared by, relied upon, and/or used by each witness, or any persons working for or under the direction of each witness, in connection with their surrebuttal testimony, including, but not limited to, the raw data and other results of any research or work conducted by the person, any notes taken regarding such testimony, and any documents, data, research, field work, or other information generated by any other person which the witness consulted. For any document provided by GMP to DPS, please just identify the document.**

PSD Response: Objection. The Department objects to this request on the basis that it is overly broad and unduly burdensome. Without waiving these objections, the Department responds as follows:

Documents relied upon by Department witnesses in the preparation of their surrebuttal testimony are produced in response to individual discovery requests below. The Department also relied upon all documents produced by GMP in this proceeding, including prefiled testimony, exhibits, and discovery responses.

- b) **Please identify and produce, in their original format, all electronic files that were utilized or generated to prepare any exhibit or any analysis, images, impressions, conclusions, or statements presented in either their surrebuttal testimony or any associated exhibits.**

PSD Response: The Department's surrebuttal testimony did not include any exhibits. To the extent the Department's witnesses relied on electronic files in the preparation of their surrebuttal testimony, those files are produced in response to individual requests below.

Person Responsible: J. Riley Allen, Edward McNamara, and Maria Fischer

Title: Deputy Commissioner, Director of Planning and Energy Resources, and Utilities Economic Analyst, Department of Public Service, respectively Department of Public Service

Date: March 26, 2019

Q.GMP.2-2 On page 4, line 7 of his surrebuttal testimony, Mr. Allen refers to a new class of providers that may have pre-established relationships with their customers. What types of firms is Mr. Allen referring to here? If the Department is familiar with such firms that are already providing innovative services to GMP customers (outside of programs initiated by GMP), please identify such firms and the nature of those services.

PSD Response: The types of firms that I refer to include photovoltaic solar providers such as Norwich Technologies, Sun Common, and SunRun or JouleSmart, which falls into the category of energy service company for small commercial providers. I have also had conversations with other companies like Packetized Energy and Dynamic Organics, but the nature of their current relationship with GMP is not fully known to me. Greenlots, which provides software for public charging stations also comes to mind, even though it would obviously couple its services with hardware providers of EVSE equipment that have relationships with end users. But longer term, I also refer to large companies like Amazon, Nest, Microsoft, and Google that will likely enter this space over time, potentially through the acquisition of other entities to expand a suite of services focused initially on customer entertainment and security services, and expand those offerings to include energy management services.

Person Responsible: J. Riley Allen

Title: Deputy Commissioner, Department of Public Service

Date: March 26, 2019

Q.GMP.2-3 Regarding Mr. Allen's statements on page 7, lines 6-13 on the development of a Climate Resiliency Plan, please clarify and explain how the Department would propose to determine whether an upgrade or expenditure would not be implemented "but for" the adoption of the CRP.

PSD Response: The intent of my testimony is to minimize the overlap between capital spending subject to the cap included in the proposed multi-year plan and investments directed at creating a more resilient distribution system platform that counters the effects of climate change (potentially combined with customer storage). I think a good start on determining what is in and what is out of the CRP is to identify specific project types and categories that are different than traditional distribution system investments, such as substation rebuild/upgrades and pole replacements. Examples that come to mind include a plan for relocating lines through woods, along roadsides, a more detailed plan for storage that extends beyond current plans for Powerwalls, and identification of projects to underground vulnerable overhead lines where it seems cost-effective to do so (if any).

Person Responsible: J. Riley Allen

Title: Deputy Commissioner, Department of Public Service

Date: March 26, 2019

Q.GMP.2-4 On pages 9-10 of his surrebuttal testimony, Mr. Allen discusses a potential comparison of GMP's power supply costs to a benchmark of historical energy and capacity market costs in the ISO-NE wholesale market.

- a) Please confirm that, as indicated on page 9 (lines 14-15), the Department's intent here is for the comparison to reflect energy and capacity costs – as opposed to other costs such as those associated with compliance with renewable power requirements.**

PSD Response: The testimony was intended to reflect a comparison of energy and capacity costs. However, the question raises a valid point as renewable power requirements are an integral component of GMP's overall power costs. I would suggest folding in current market conditions for RECs into this comparison. Basically, I would recommend creating a proxy basis for an RPS using some weighting of current REC pricing.

- b) Many of GMP's power supply sources provide multiple products (e.g., energy, capacity, RECs) together in a bundled fashion, so that their costs include more than just energy and capacity. For the purpose of the benchmark comparison, does the Department believe that it will be appropriate to apportion GMP's actual power costs to energy and capacity without costs associated with other products or services such as RECs or ancillary services? If so, please explain the Department's thinking on how best to accomplish this. If not, does the Department believe that the benchmark comparison will be useful even though costs associated with achieving renewable goals/requirements are included in GMP's actual power but not in the regional wholesale benchmark?**

PSD Response: This is a fair point. The benchmark should include all material reference products. It is not enough to only include energy and capacity. REC values and related attributes must be included in the bundle. Please also refer to my response to Q.GMP.2-4(a) above.

- c) Does the Department propose to take into account GMP's specific statutory obligations to meet RES, or other Vermont specific statutory requirements when preparing this benchmark cost comparison? If so, please explain how the Department propose to address these obligations. If not, please explain why not.**

PSD Response: GMP's statutory obligations provide an important reference point that that probably should not be ignored in such a metric. I would be open to any sensible way that incorporates these obligations it into the benchmark comparison. If that process is not feasible, these obligations could be subjectively accounted for in how the comparisons to a benchmark are ultimately interpreted, and in the future how incentives might be applied.

Person Responsible: J. Riley Allen

Title: Deputy Commissioner, Department of Public Service

Date: March 26, 2019

Q.GMP.2-5 With respect to Mr. Allen's response to GMP's revised proposed performance metrics in the response to Question 9 of his testimony:

- a) For (ii), please clarify whether the Department intends to refer to GMP's power supply or share of generation.**

PSD Response: Overall power supply.

- b) For (ii), admit that in Exhibit GMP-BO-7, GMP proposes tracking the percent of GMP's power supply that is carbon-free as a separate line item from the percent of GMP's power supply that is renewable energy (as defined under 30 V.S.A. § 8002(12)). If denied, please state the basis for denial.**

PSD Response: Exhibit GMP-BO-7 proposes tracking the percent of GMP's power supply that is carbon-free. I interpreted the response that references an "or" to mean that they would be combined. If that is not intended, then the Department would likely find the approach set out in Exhibit GMP-BO-7 to be acceptable.

- c) For (iii), if/when GMP develops specific EV charging rate incentives, please confirm whether providing a customer count for enrollment in any EV charging rates at the end of each year would satisfy this recommendation. If not, please explain why not.**

PSD Response: Confirmed, to the extent that this refers to either EV charging rates or other relevant incentives through tariffs, pilot program, or other incentive programs.

- d) For (vi), please confirm that the extent of grid-connected DERs visible to GMP as contemplated in this metric are battery storage systems, controlled EVs, heat pumps, and heat pump water heaters. If not, please explain why not.**

PSD Response: I would include any controlled device, including water heaters that are not heat pump water heaters and any other loads that are controlled by GMP either directly or indirectly.

Person Responsible: J. Riley Allen

Title: Deputy Commissioner, Department of Public Service

Date: March 26, 2019

Q.GMP.2-6 On page 30, line 5 of his surrebuttal testimony, Mr. Allen notes that GMP has a history that demonstrates that it has exceptional stability in earnings relative to its peers.

- a) Please explain the basis for this statement, and provide the information supporting it.

PSD Response: It is based on a comparison of GMP with available peers from FERC 1 data. In support of my testimony, I relied upon a document produced as Attachment Q.GMP.PSD.2-6, which is a chart that I prepared prior to assuming my current position as Deputy Commissioner at the Department. This chart relied on publically accessible data from FERC 1 forms.

- b) In this context, what measure of earnings stability is Mr. Allen referring to? For example, stability of annual earnings (\$/year) over the course of several years? Variance between actual annual earnings and the level of earnings reflected in retail rates?

PSD Response: Stability of estimates of annual equity return on booked investment.

Person Responsible: J. Riley Allen

Title: Deputy Commissioner, Department of Public Service

Date: March 26, 2019

Q.GMP.2-7 Regarding Mr. Allen's statements on page 30 regarding an asymmetrical ESAM, would Mr. Allen agree that one of the goals of alternative regulation is to provide an incentive for the utility to find cost savings and that the introduction of an asymmetrical earnings sharing mechanism would reduce the effectiveness of incentives under the Plan? If not, please explain why not and provide any supporting documentation and information.

PSD Response: I agree that one of the goals of alternative regulation is to provide incentives for a utility to find cost savings. I do not agree that asymmetrical earnings sharing mechanisms would reduce the incentives under an alternative regulation plan. Rather I would expect it to improve the incentive, assuming we define incentives to include both management of costs to enhance increased profit opportunities and to manage the downside risks of diminished profits from poor cost management. I do not have any specific supporting documentation to provide in response to this questions other than my knowledge and experience as an economist, as this position seems to me to be a basic economic assertion. Companies and individuals are motivated by both positive incentives, and the avoidance of downside risks. Behavioral economics suggests that managing the downside risks (or penalties for poor performance) may be a stronger motivator than the upside potential.

Person Responsible: J. Riley Allen

Title: Deputy Commissioner, Department of Public Service

Date: March 26, 2019

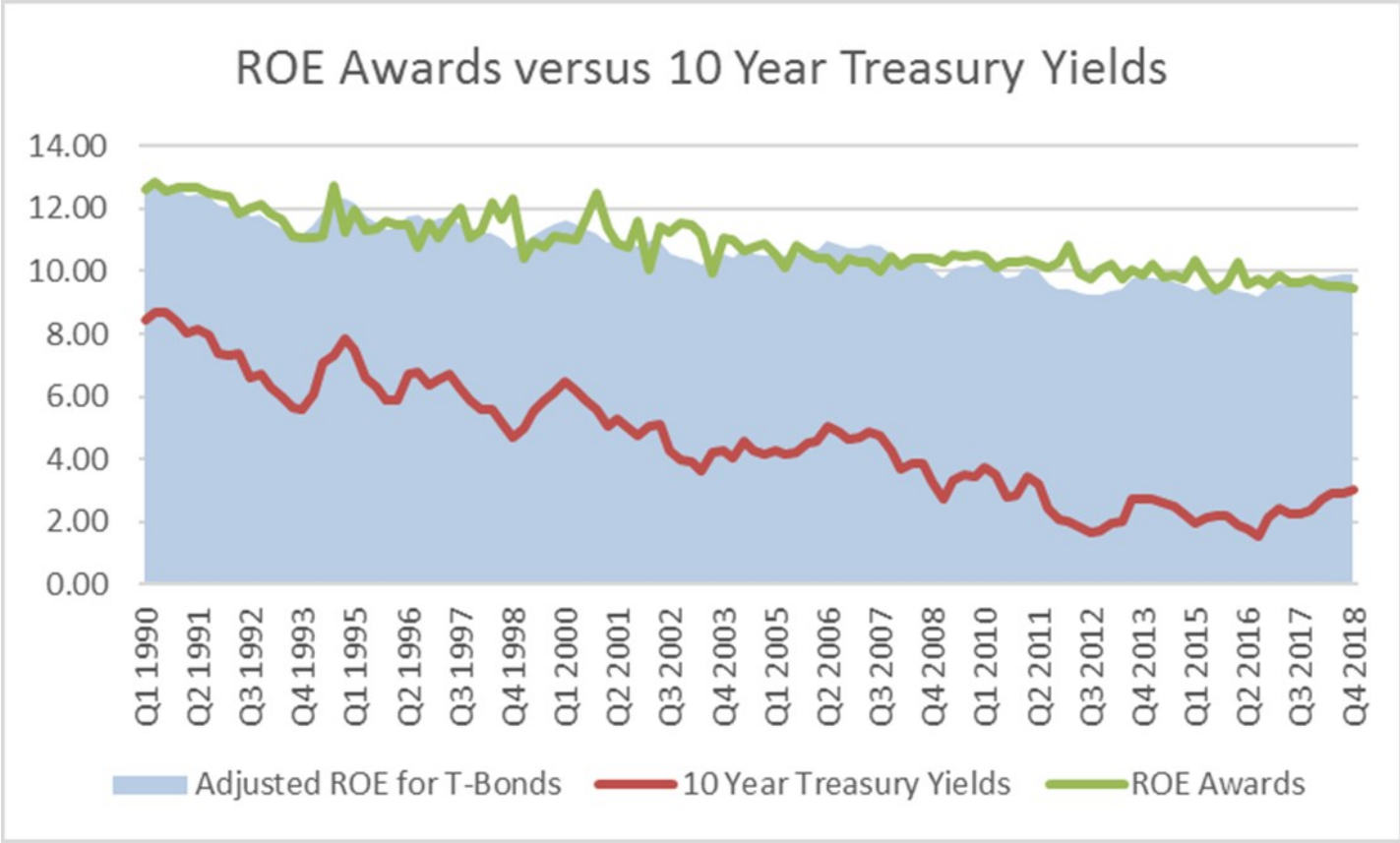
Q.GMP.2-8 With respect to Mr. Allen's proposal in Question 34 in his testimony to establish "guardrails" for the ROE adjustment mechanism, please explain the guardrails Mr. Allen has in mind, and how those guardrails would be established and implemented.

PSD Response: The proposal in mind was not specific. In my view, the guardrails that I had in mind were to simply create boundaries on the rise or fall of the 10 year treasury bonds, so that that if the treasury bonds rose or declined above or below a certain level, the variation would not translate into an adjustment of the ROE. As a practical matter, there may be little compelling evidence to suggest that any guardrails are necessary. Movement in 10 Year Treasury Bonds seems to follow movement in the ROE awards quite closely over a three decade span, as a graphic from an EEI spreadsheet data showing the differential between awards and yields seems to show. A slightly modified version of the spreadsheet prepared by EEI is produced as Attachment Q.GMP.PSD.2-8. The only modifications that I made to this spreadsheet are the data and image included in columns I through S on the tab titled "VI Aggregated Data." The original, unmodified version of the EEI spreadsheet is publically accessible at the following link:

http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/QtrlyFinancialUpdates/Documents/QFU_Rate_Case/2018_Q4_Rate_Review.xlsx

As seen in this data, Treasury Bond yields dropped in first quarter of 2009 by an average of about ½ percent, without much movement in ROE awards. But EEI data show that the average regulatory lag of that period was almost 10 months. This suggests that it may be the lagging effect of regulation to reflect current market circumstance rather than a poor fit with a 50% weighting of movement in 10-Year Treasury bonds that is the problem. If an adjustment were needed, it would likely be to further clip the movement in quarterly movement in 10-year treasuries based on the last three-quarters, perhaps by limiting movement to no more than 50 basis points. The practical effect of this would be that ROE movement would be no more than 25 basis points up or down relative to a sudden movement in 10-Year Treasury Bond prices. An alternative would be to use a lagging quarterly value, maybe three or even four quarters. A simple correlation analysis suggests that these lagging quarterly values improve the fit, suggesting that regulatory lag is a factor.

But the historical data suggests a pretty good fit with the change in 10-Year Treasuries, and some of the variation can be explained by the lagging influence of regulation. I calculate an R^2 of about 0.72 that improves to about 0.78 with lagged ROEs of 4 quarters (see Column I on the Aggregated Data tab of Attachment Q.GMP.PSD.2-8), and the chart below, which I prepared tracks ROE awards versus the 10 Year Treasury Yields.



Person Responsible: J. Riley Allen
Title: Deputy Commissioner, Department of Public Service
Date: March 26, 2019

Q.GMP.2-9 Page 6 (line 12) of the Department panel's surrebuttal testimony discusses the size of the quarterly deadband for Component B.

- a) To what extent does the Department believe that variances between GMP's actual and benchmark Component B costs during the past four years have been due to inaccurate forecasting by GMP? Please explain and provide the basis for the Department's view.**

PSD Response: The Department believes that all variances are due to inaccurate forecasting. That said, we do not believe that 100% accurate forecasts are achievable, especially given GMP's reliance on intermittent resources. The Department believes that there is always room for forecast improvements to be made, but without any incentive for improvement, those efforts might not be thoroughly pursued. We also note that it was GMP's decision to procure a power supply portfolio that is heavily reliant on intermittent resources, which can result in unpredictable power costs and large variances. Those risks should have been and should continue to be a consideration as GMP evaluates its power portfolio going forward.

- b) Does the Department agree that variances in Component B costs much larger than the deadband range can and sometimes do occur as a result of short-term variances in factors (e.g., weather-driven changes in hydro output or customer electricity consumption, pace of completed net-metering installations, etc.) that are largely outside of GMP's control? If the Department does not agree, please explain why not and provide all supporting documents and information.**

PSD Response: Yes, the Department agrees with that statement.

Person Responsible: Edward McNamara and Maria Fischer

Title: Director of Planning and Energy Resources and Utilities Economic Analyst, Department of Public Service, respectively

Date: March 26, 2019

Q.GMP.2-10 With respect to the statements on page 6 (line 7) that the Power Supply Adjustor (“PSA”) costs “will be passed through for recovery from ratepayers” and on page 7 (lines 21-22) that the PSA “helps GMP recover its power supply costs,” admit that GMP has in the past returned money to customers through the PSA. If denied, explain the basis for denial.

PSD Response: The Department admits that GMP returns money to ratepayers through the PSA when component B costs are over-collected.

Person Responsible: Edward McNamara and Maria Fischer

Title: Director of Planning and Energy Resources and Utilities Economic Analyst, Department of Public Service, respectively

Date: March 26, 2019

Q.GMP.2-11 Is the DPS aware of any other utilities in the U.S. that bear the level of risk that the Department is asking GMP to bear for power costs that are outside of GMP's control? If so, please identify the utility and explain why the level of risk is comparable.

PSD Response: Yes, there are many utilities that do not have a power adjustor and bear all the risks associated with power costs. For example, GMP is the only electric utility in Vermont that currently has a Power Supply Adjustor enabling it to limit its risk profile.

Person Responsible: Edward McNamara and Maria Fischer

Title: Director of Planning and Energy Resources and Utilities Economic Analyst, Department of Public Service, respectively

Date: March 26, 2019

As to objections: Daniel C. Burke, Esq.

Dated at Montpelier, Vermont, this 26th day of March, 2019

Vermont Department of Public Service

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