STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 18-1633-PET

Petition of Green Mountain Power for approval of	)
a multi-year regulation plan pursuant to 30 V.S.A.	)
§§ 209, 218, and 218d	)

Green Mountain Power's Responses to the Third Set of Discovery Requests Served by the Department of Public Service

Green Mountain Power ("GMP" or "Petitioner"), by and through the undersigned counsel, hereby responds to the third set of discovery requests served by the Department of Public Service ("DPS," PSD," or "Department") on February 11, 2019.

General Objections

The following General Objections of Petitioner GMP are incorporated by reference into its responses to each Interrogatory, Request to Produce, and Request for Admissions reproduced below, whether or not an objection is stated in any particular response. Any response to one of the Interrogatories, Requests to Produce, or Requests for Admission given below is given without waiver of any objection, whether or not an objection is stated.

1. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission reproduced below to the extent that it is overbroad, irrelevant, unduly burdensome, or not proportional to the needs of the case.

2. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission reproduced below to the extent that it calls for the disclosure of information or production of material privileged under the attorney-client, work-product, or any other applicable privilege.

3. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission reproduced below to the extent that it is unreasonably cumulative or duplicative, or calls for the disclosure of information or production of material that is obtainable from some other source that is more convenient, less burdensome, or less expensive, including, but not limited to, information or material that is publicly available or that has already been disclosed or produced to you in connection with another proceeding.

4. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission reproduced below to the extent that it calls for the disclosure or production of confidential or proprietary information, trade secrets, or material.

5. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission reproduced below to the extent that it is vague, unintelligible, requires speculation as to the information being sought, or is otherwise incapable of a reasonable answer.

6. Petitioner objects to each Instruction and Definition listed in the requesting party's discovery requests to the extent that it exceeds the bounds of permissible discovery or is unduly burdensome.

7. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission to the extent that the request exceeds the scope of Petitioner's testimony and exhibits.

8. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission to the extent that the request would require Petitioner to conduct extensive document review, additional studies, analyses, and/or tests as part of its response.

9. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission to the extent that the request exceeds the scope of the requesting party's intervention.

10. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission to the extent that the request exceeds the scope of the issues on review.

11. Petitioner objects to each Interrogatory, Request to Produce, and Request for Admission to the extent that it calls for a legal conclusion.

INTERROGATORIES AND REQUESTS TO PRODUCE

General Requests

Q:PSD:GMP.3.1. Please provide, in native file format, copies of all updated models or forecasts that GMP has prepared to project its expected revenue requirement and/or rate need for each year of the proposed multi-year rate plan, including any modeling or forecasting that was prepared by GMP in support of preparing its rebuttal testimony.

Objection: GMP reasserts General Objection 2, to the extent that the request encompasses material protected by the attorney-client and work-product privileges. Without limiting or waiving this objection, GMP responds as follows.

A:PSD:GMP.3.1. Please see Attachments GMP.DPS3.Q1.1 through GMP.DPS3.Q1.3 for FY2020 through FY2022 Cost of Service forecasts. Please note that these forecasts contain projected ROEs provided by Concentric Energy Advisors, Inc. It should be noted that these forecasts are only projections, based on the best information currently available and likely will change before June of 2019.

Person/s Responsible for Response: Rob Bingel
Title of Person/s: Manager, Forecasting & Analytics
Date: February 25, 2019

Q:PSD:GMP.3.2. Please provide electronic copies, in native file format, of all exhibits, worksheets, workbooks, calculations, and/or data sets used by GMP or its witnesses in the preparation of GMP's rebuttal testimony.

Objection: GMP reasserts General Objection 2, to the extent that the request encompasses material protected by the attorney-client and work-product privileges. Without limiting or waiving this objection, GMP responds as follows.

A:PSD:GMP.3.2. Please see:

- Attachment GMP.DPS3.Q2.1 - Native Format Exh. GMP-MGP-1 (Rev.)
- Attachment GMP.DPS3.Q2.2 - Folder of Native Plan Documents
- Attachment GMP.DPS3.Q2.3 - Native Format Exh. GMP-ER-2
- Attachment GMP.DPS3.Q2.4 - GMP & DPS ESAM Comparison ER Rebuttal Testimony

Please note that we have not provided native format copies of Exhibits GMP-ER-3 and GMP-ER-4 as these exhibits are discovery responses from the Department. We also note that the native files for Brian Otley's rebuttal exhibits (GMP-BO-4 (Rev.) and GMP-BO-7) are included in the folder containing the native plan documents, provided as Attachment GMP.DPS3.Q2.2, as they form the basis for Attachment 7 to the Revised Plan.

Person/s Responsible for Response: Eddie Ryan
Title of Person/s: Controller
Date: February 25, 2019

Requests in Response to Rebuttal Testimony of Edmund Ryan

Q:PSD:GMP.3.3. Please refer to page 4, lines 15–18 of Mr. Ryan's rebuttal testimony for the following requests regarding the discovery of the Emerald Ash Borer infestation in Vermont:

a. **Please state (or approximate) when GMP became aware of the confirmed presence of the Emerald Ash Borer in Vermont;**

b. **If the Emerald Ash Borer infestation was known to GMP prior to filing its Petition in June, 2018, please state why GMP did not include the invasive species remediation adjustor in the plan as originally proposed;**

c. **Please provide a copy of the Emerald Ash Borer action plan referenced on page 26, line 9 of Mr. Ryan's rebuttal testimony;**

d. **Please describe any actions that GMP has already taken to mitigate potential damages that are expected to result from the infestation;**

e. **Please describe how GMP will account for costs and expenses associated with the invasive species remediation adjustor to ensure that these costs and expenses are segregated from other right-of-way maintenance and vegetative management costs and expenses;**

f. **Please describe the regulatory review process associated with the invasive species remediation adjustor, including the review of costs, expenses, and the cost recovery of the adjustor.**

A:PSD:GMP.3.3.

a. GMP first learned of the presence of the Emerald Ash Borer ("EAB") infestation in Vermont in late February 2018.

b. At the time GMP prepared and filed its proposed Multi-Year Regulation Plan ("MYRP" or the "Plan") (June 4, 2018), GMP was evaluating the potential extent of the EAB infestation, reviewing its potential impact on our infrastructure, and developing a prudent and appropriate response. As a result, we were not in a position to propose a specific course of action or associated cost for addressing the EAB infestation when we filed the original MYRP. Upon receiving confirmation of the infestation from the State in late February 2018, GMP began taking inventory of the forest makeup of the area of EAB infestation in our service territory, confirming best practices for addressing the infestation, and discussing potential approaches with internal staff, outside experts, and other utilities. We also discussed the unfolding situation with DPS staff. Based on these discussions and evaluations, we developed a proposed EAB Mitigation Plan, and an associated cost estimate for implementation of this plan in the fall of 2018. The draft EAB Mitigation Plan was refined as GMP prepared its 2018 IRP; the issue of cost recovery was developed as a part of GMP's rebuttal for this matter, recognizing the targeted but significant spending that will be required to address the EAB problem both for GMP and statewide.

c. Please see Attachment GMP.DPS3.Q3 for a copy of the proposed EAB Mitigation Plan.

d. As part of GMP's existing danger tree program, tree contractors have been instructed to take down any ash tree along our corridor that shows signs of decay. However, that does not address the quick decline of healthy ash trees caused by the EAB, which the EAB program would address.

e. The GMP EAB mitigation program will be managed separately from the rest of the vegetation management program and will have its own accounting project number. Three dedicated crews plus a program manager will focus on ash tree removal alone. In circumstances where they are pulled from this activity to assist with other responses, such as storm restoration or other danger tree removal, they will be given separate accounting project numbers to apply that time.

f. Within 60 days following each fiscal year, GMP will file an annual report on the actual amount spent on EAB mitigation activities, and will calculate the adjustment proposed to the $1.2 annual line item charge to account for any differences in actual amounts expended. The proposed line-item adjustment would be subject to DPS review and Commission approval, and would go into effect on bills immediate upon Public Utility Commission ("PUC" or "Commission") approval.

Person/s Responsible for Response: Mike Burke
Title of Person/s: Chief Field Operations Executive
Date: February 25, 2019

Q:PSD:GMP.3.4. Please refer to page 12, line 1 of Mr. Ryan's rebuttal testimony. Mr. Ryan refers to annual adjustments to the Department's proposed "I-X productivity factor." To be clear, the Department's proposal was not intended to adjust the "I-X productivity factor" annually. Please state whether GMP's position with respect to the "I-X productivity factor" would be any different knowing that annual adjustments would not be required after the factor was set at the outset of the plan.

A:PSD:GMP.3.4. We appreciate the clarification, but still believe the application of an I-X formula would be more complex and less transparent than GMP's Revised Plan proposal using a forecast to lock non-power costs over the life of the Plan, and would be more difficult to implement in the context of the existing merger savings agreement, for the reasons outlined in Mr. Ryan and Mr. Coyne's testimony. The Department's proposal for developing and potentially adjusting the I-X productivity factor was not clear, and in various discovery responses indicated that an annual adjustment might be needed to address changes in costs over the term of the Plan. *See* DPS Discovery Response to Q.GMP.1-28 (noting that if costs in a given year increase above inflation, "either the productivity adjustment will need to be adjusted or we may need to find flexibility elsewhere in the plan"); Response to Q.GMP.1-29(a) & -(b) (noting that certain changes in debt or interest expenses, "would be recognized in the year over year change that would be necessary to offset the otherwise assumed productivity adjustment" or "potentially grow the productivity adjustment"). If the productivity factor is not adjusted annually to account for these differences it remains unclear how the Department would propose addressing these potential changes at the beginning of the Plan period. The lack of an annual adjustment likely would cause a greater disconnect from GMP's actual cost to serve.

Person/s Responsible for Response: Eddie Ryan & Karen Young
Title of Person/s: Controller; Budget/Forecasting Supervisor
Date: February 25, 2019

Q:PSD:GMP.3.5. On page 14, lines 6–7 of his rebuttal testimony, Mr. Ryan testifies that the Department's proposed "I-X" formula presents a risk that "not all required merger savings will be returned to customers." Please explain in detail the basis for this assertion. Please also respond to the following examples:

a. **Assume that the Department's proposed productivity offset required $100 to flow to ratepayers and the merger savings in year 2 were $50. Please state whether and/or how the productivity factor would compromise the ability of ratepayers to realize the $50 in savings;**

b. **For the same example, please state whether the $50 would need to be treated differently than the $100 for purposes of the O&M platform? If so, please explain your response in detail.**

Objection: GMP reasserts Objection 5. Questions 5(a) & (b) are vague and ambiguous because the hypotheticals provided are not clear and could be read in numerous different ways. Without limiting or waiving the objection, GMP responds as follows:

A:PSD:GMP.3.5. The basis for the statement on page 14, lines 6–7 of Mr. Ryan's rebuttal testimony is two-fold. First, the Department's proposal for establishing the I-X productivity factor assigned a fixed amount of savings to assumed merger savings. Mr. Allen stated in his testimony that his 0.86% productivity factor assumed a value of merger savings of 0.2%, and the remainder was associated with new non-merger savings. *See* Allen prefiled testimony at 30–31 ("Net of that which is already incorporated in the O&M Platform, the Department would propose a level of 0.66 percent per year that should be secured through the plan (current expected platform shared savings plus an additional productivity level)"). The Department did not propose a mechanism for truing up actual merger savings against this fixed level. If actual merger savings in any year exceed the assumed 0.2% incorporated into the productivity factor, under the Department's proposal these additional savings would not be returned to customers.

The second, related reason the Department's proposed I-X formula risks not returning all achieved merger savings to customers is that GMP does not understand how it would be possible to separately track the actual non-merger productivity savings from achieved merger savings. These savings will result in lower O&M costs in the same set of FERC accounts. As a result, the actual savings (whether as a result of the merger or further non-merger productivity savings), would be commingled, and cannot be treated separately with respect to determining what should be returned to customers under the merger savings agreement in Docket 7770.

a. The hypothetical is not clear. For example, is the $50 merger savings in addition to the assumed $100 productivity savings, or assumed to be part of that savings? In addition, the question does not define the assumed amount of merger savings included in base rates. The reference to "year 2" is also unclear. That uncertainty aside, as noted above it is not possible to track merger savings and "non-merger" productivity savings separately because the O&M savings will occur in the same FERC accounts. The merger savings agreement in Docket 7770 requires GMP to share all O&M Platform savings with customers (50% in FY20, and 100% in FY21 and FY22). To do so, GMP must be able to track actual merger savings to ensure the appropriate amounts are returned to customers. The Department's proposal to "fix" savings through a productivity factor would not allow for proper accounting and return of these merger savings.

b. It is not possible to track or account for these savings in the same O&M areas separately. See A:PSD:GMP.5 and subsection (a) above.

Person/s Responsible for Response: Eddie Ryan & Karen Young
Title of Person/s: Controller; Budget/Forecasting Supervisor
Date: February 25, 2019

Q:PSD:GMP.3.6. Please refer to page 15, lines 14–15 of Mr. Ryan's rebuttal testimony, where he testifies that "the Department's blanket I-X formula plan proposes to apply an inflation-based index to a number of costs that simply do not follow inflation." With respect to this assertion, please respond to the following requests:

a. **Please clarify whether Mr. Ryan's assertion regarding inflation is intended to mean that utility electric costs, or a subset of utility electric costs, cannot meaningfully be estimated or projected by referencing inflation either with a productivity offset, positive or negative, or a multiplier. If not, please explain your response;**

b. **Similarly, please also clarify whether there are some exceptional changes expected in GMP's cost of service between FY 2019 and FY 2020 that would not be accounted for by an inflation-based index, or whether Mr. Ryan's assertion is a more general statement that any form of index formula that relies on some measure of inflation is an inherently flawed approach to alternative regulation;**

c. **Please state whether GMP currently tracks any costs or accounts within its cost-of-service by indexing them to inflation or some other indexing formula (such as a consumer price index). If so, please identify those costs.**

<u>Objection</u>: GMP reasserts Objection 5. Question 6(c) is vague and ambiguous because the phrase "whether GMP currently tracks any costs or accounts within its cost of service by indexing them to inflation…" is not clear. Without limiting or waiving the objection, GMP responds as follows:

A:PSD:GMP.3.6.

a. The year-over-year change in a large sub-set of GMP's electric costs, such as depreciation expense, regulatory amortizations, municipal and other taxes, return on utility rate base, and equity-in-earnings of affiliates, do not follow inflation.

   Depreciation, municipal taxes, return on utility rate base, and equity-in-earnings of affiliates are impacted on a yearly basis due to change in our investment balances. Return on rate base is also impacted due to a change in our weighted average cost of capital. As a result, we do not believe use of an inflation factor or productivity off-set could be used to accurately estimate the changes in these accounts.

b. There are some changes between GMP's FY 2019 and FY 2020 cost of service that would not or should not be accounted for through only an inflation-based index. These changes include:

   i. O&M expenses that are included in the O&M Platform, which is already subject to the methodologies and guarantees in the Docket 7770 Merger Order for the term of the Plan. The O&M Platform is already tied to inflation, but actual O&M costs are measured against this benchmark to determine savings.

   ii. The one-time benefits returned to customers in the 9-month 2019 rate period (or one-time benefits in any other period) cannot be accurately accounted for through only an inflation-based index mechanism, without some other adjustment to account for these one-time benefits.

   iii. For other issues associated with applying an I-X formula to the total non-power cost of service, see subsection (a) above

   With respect to the general use of a formula-based method, see A:PSD:GMP.3.7 and A:PSD:GMP.3.11 below.

c. The question is unclear, but to the extent DPS is asking about specific cost of service items that have been historically indexed to inflation, GMP has two power supply contracts that are at least partially indexed to the Gross Domestic Product Implicit Price Deflator ("GDPIPD"). The contracts are with HQUS and Seabrook.

   In addition, consistent with the Commission's Order in Docket 7770, Platform O&M Costs are increased by inflation (CPI-NE), which is used as a mechanism to measure synergy savings that are shared with customers.

To the extent that DPS is asking about GMP's proposal for how to account for costs in the MYRP period, GMP originally proposed annual updates to some categories of accounts based on a formulaic, inflation-based adjustment, but has now proposed fixing the majority of non-power costs based on a forecast at the beginning of the Plan, with the exception of revenue-based taxes, as described in Mr. Ryan's rebuttal testimony on page 12. Attachment 1 to the Revised Plan (Exhibit GMP-ER-1 (Rev.)) shows how each type of cost is proposed to be established.

Person/s Responsible for Response: Rob Bingel, Eddie Ryan, & Karen Young
Title of Person/s: Manager, Forecasting and Analytics; Controller; Budget/Forecasting Supervisor
Date: February 25, 2019

Q:PSD:GMP.3.7. Please refer to page 17 of Mr. Ryan's rebuttal testimony, where he discusses problems with accounting for one-time benefits (JV Solar Storage projects, Utopus investment, etc.) under the Department's proposed "I-X formula." With respect to this testimony, please respond to the following requests:

a. **Please state whether it is GMP's position that it is not possible for GMP to account for one-time benefits under the Department's proposed "I-X formula." If so, please explain your response in detail.**

b. **Please also state whether it is GMP's position that it is not possible to smooth the rate impact of the one-time benefits over the three year term of the multi-year rate plan under the Department's proposed "I-X formula."). If so, please explain your response in detail.**

A:PSD:GMP.3.7.

a. It is not GMP's position that it would be impossible to potentially account for one-time benefits under an I-X formula or to smooth those impacts through use of a formula, but rather that the methodology for doing so would be complex and less transparent than appropriately incorporating the known and measurable changes into a forecast of costs over the three-year term of the Plan, as GMP proposes. It also is still not clear to GMP how the Department's methodology actually would operate to account for these items. The Department's proposed I-X formula does not appear to account for those differences or propose a specific mechanism to address these issues, and even if further defined, concerns with using an I-X formula in light of GMP's current merger savings plan would still remain, as described above.

b. See A:PSD:GMP.3.7(a), above. Please also see Mr. Ryan's prefiled rebuttal testimony at 12–13 describing GMP's proposed smoothing mechanism for the three-year period based upon forecasted cost and revenue changes.

Person/s Responsible for Response: Eddie Ryan & Karen Young
Title of Person/s: Controller; Budget/Forecasting Supervisor
Date: February 25, 2019

Q:PSD:GMP.3.8. On page 19 of Mr. Ryan's rebuttal testimony, he states that "in order to comply with the Docket 7770 order, GMP would need to separately track merger savings from these other potential—but unspecified—productivity gains." With respect this portion of testimony, please respond to the following requests:

a. **Please state the level of annual shared savings to customers GMP currently expects to be required during each year of the plan as a result of the merger platform (i.e., at the end of FY 19, what levels of savings is due to ratepayers?).**

b. **Assuming that GMP achieves no more than the annual level of savings for the sixth year following the merger (as reported in documents provided to the Department in November, 2018 as $17,022,602), please state when GMP will have successfully achieved the minimum requirement of $144 million to ratepayers.**

c. **In November of 2018, GMP reported an accumulated contribution to its customer savings share equal to over $65 million. Assuming GMP achieves reasonably expected levels of annual savings of roughly $36 million in FY 2019, $38 million in FY 2020 and $39 million in FY 2021, please state whether it is reasonable to assume that GMP will need only $3 million in the 3rd year of the plan to meet its $144 million 10-year commitment under Docket 7770.**

Objection: GMP reasserts Objection 5. Question 8(b) is vague and ambiguous because the question misstates the amount of annual merger savings in Year 6 of the merger savings agreement. Without limiting or waiving the objection, GMP responds as follows:

A:PSD:GMP.3.8.

a. See Attachment GMP.DPS3.Q8.a for Projected Merger Savings in Excess of Original Merger Savings.

b. GMP reasserts Objection 5. The question is vague and ambiguous. $17,022,602 is not the annual savings in Year 6, but rather the 50% customer share of all savings in that period. Without waiving the objection, GMP answers as follows: GMP is on track to deliver more than the guaranteed level of $144 million in customer savings before the end of the merger savings period, which coincides with the end of the proposed MYRP period.

c. That is correct. See Attachment GMP.DPS3.Q8.c. Under the Department's hypothetical, Projected Merger Savings would reach $141M by the end of Year 9. However, the merger savings agreement requires GMP to return 100% of all savings in Years 9 and 10 to customers, and therefore any savings achieved beyond the $144 million in the last two years of the merger savings period will flow directly to customers.

Person/s Responsible for Response: Dawn Bugbee
Title of Person/s: Chief Financial Officer
Date: February 25, 2019

Q:PSD:GMP.3.9. With respect to the Docket 7770 merger savings platform, please respond to the following requests:

a. **Please explain whether and/or how any O&M platform savings that are due to GMP's shareholders in the first year of the proposed multi-year rate plan would be treated differently from the O&M Platform savings that are due to ratepayers;**

b. **If GMP shareholders receive base O&M platform savings in excess of GMP's projections during the first year of the proposed multi-year rate plan, please state whether that additional level of earnings will flow through to ratepayers as part of the proposes ESAM. If not, please explain your response**

A:PSD:GMP.3.9.

a. In the first year of the proposed Multi-Year Regulation Plan (FY20), GMP's shareholders and customers share synergy savings 50/50. Customers' projected savings will be included in the base rates established for FY 2020. To the extent the customers' actual share of synergy saving for FY 2020 is different than that projected, GMP will establish a regulatory asset or liability in FY 2020 to collect or refund the difference in future base rates to customers, or as ordered by the Commission during the MYRP period. The establishment of this regulatory asset or liability automatically adjusts the shareholder portion of synergy savings to 50%.

b. Consistent with how GMP has historically handled differences between projected and actual rate period customer synergy differences, GMP will record a regulatory asset/liability at the end of the rate period so these differences will have no impact on the ESAM. See response to subsection (a) above.

Person/s Responsible for Response: Eddie Ryan & Karen Young
Title of Person/s: Controller; Budget/Forecasting Supervisor
Date: February 25, 2019

Q:PSD:GMP.3.10. On page 19 of his rebuttal testimony, Mr. Ryan testifies that "[t]he DPS plan does not indicate what specific types of additional productivity savings beyond the required merger savings can be achieved, and also does not provide guidance on how to separately track these items from the merger savings GMP is already obligated to return to customers." With respect to this assertion, please respond to the following:

a. **Please clarify whether it is GMP's position that the only level of O&M savings that can achieved during the term of the multi-year rate plan are the savings that flow from the O&M platform that was established as a result of Docket 7770;**

b. **Please state whether it is GMP's position that applicable accounting standards and/or requirements prohibit GMP from tracking savings achieved under the O&M platform differently from any efficiency or productivity savings that can be achieved as a result of operating under a multi-year rate plan. If so, please identify those accounting standards or requirements.**

A:PSD:GMP.3.10.

a. No, but the potential for savings in Non-Platform O&M costs is exceedingly small. First, there are very few categories of Non-Platform O&M expenses (see Attachment 1 to Mr. Ryan's rebuttal testimony). These limited categories of O&M expenses are not categories in which additional efficiencies would likely be achieved as a result of operating under a regulation plan. The types of efficiencies that DPS itself notes as likely under a regulation plan (reduced legal/regulatory expenses, reduced staff time associated with annual cost of service reviews, etc.) flow instead through Platform O&M accounts. To the extent that savings are achieved in categories of O&M savings that are included within Platform O&M accounts, GMP is already required to share those savings with customers per the requirements of the Docket 7770 Order (50% in FY20, and 100% in FY21 & FY22) so customers will see any savings.

b. No, but such separate tracking would be impossible since the merger savings and productivity gains are captured in the same FERC accounts, as explained in more detail in A:PSD:GMP.3.5.

Person/s Responsible for Response: Eddie Ryan & Karen Young
Title of Person/s: Controller; Budget/Forecasting Supervisor
Date: February 25, 2019

Q:PSD:GMP.3.11. Please refer to page 22 of Mr. Ryan's rebuttal testimony, where he discusses challenges with prior alternative regulation plans that relied on formulaic rate setting. Please state whether it is GMP's position that alternative regulation plans should never rely on indexing formulas to establish rates. If so, please describe in detail the basis for this position.

A:PSD:GMP.3.11. No, it is not GMP's position that regulation plans should never rely on an indexing formula to establish rates. As explained further in Mr. Ryan's & Mr. Coyne's testimony, use of the blanket formula proposed by DPS would be complex and less transparent than the approach proposed by GMP, and would be particularly challenging at this time because of GMP's existing commitment to return synergy savings to customers under the merger savings agreement in Docket 7770. However, as noted by Mr. Ryan and Mr. Coyne, an indexed formula as a part of a plan may be one approach to consider for a future regulation plan, after GMP's merger obligations have been completed. GMP notes that such plans utilized in Vermont in the past did not apply the formula in the blanket fashion that DPS's proposal appears to contemplate.

Person/s Responsible for Response: Eddie Ryan & Karen Young
Title of Person/s: Controller; Budget/Forecasting Supervisor
Date: February 25, 2019

Q:PSD:GMP.3.12. On page 27 of his rebuttal testimony, Mr. Ryan discusses a Climate Resiliency Plan ("CRP"). With respect to the CRP, please respond to the following requests:

a. **Please state whether GMP has prepared a draft CRP to date. If so, please provide a copy of the draft CRP;**

b. **Please describe in detail how GMP will distinguish (or separately account) for costs included in a future CRP from capital investments subject to the proposed capital spending cap included in the multi-year rate plan. Within your response, please also clarify how GMP will identify projects that will qualify for CRP funding versus routine network resiliency investments;**

c. **Please state whether GMP is aware of any other utilities that utilize a capital funding mechanism within an alternative regulation plan similar to the proposed CRP. If so, please identify any such utilities.**

A:PSD:GMP.3.12.

a. No. GMP is in the process of evaluating the design and scope of any potential CRP but has not finalized any specific proposal or approach, and does not have a draft plan at this time.

If a CRP is proposed during the MYRP, GMP anticipates that the capital spending under the CRP would initially be separate from the capital investments within the spending cap of our Multi-Year Regulation Plan, with a clear process for the review and approval of the separate, targeted spending. It is likely that any proposed plan will have both capital and O&M recommendations during the period of the MYRP that are targeted specifically toward mitigating the effects of climate change on the performance of our electric system. We expect that the capital elements of the CRP would include named projects identifying specific locations within our system where we will complete hardening construction in order to fortify key elements of our system that impact customer reliability, beyond the base capital projects that would otherwise occur within the MYRP term. The O&M elements of the CRP may include additional expenses to expand and supplement our vegetation management and inspection programs, to increase the proactive work making our system more resilient. We should be able to clearly identify and track the elements of the CRP separately from our core capital and O&M programs to the extent any aspects overlap with other spending during the MYRP period.

b. GMP is not proposing a CRP as part of the MYRP specifically; it is rather, as described above, asking expressly for the opportunity to seek separate PUC approval for any additional spending in the form of capital or operating expenses associated with a potential CRP as part of a standalone plan during the term of the MYRP. GMP is not aware whether other utilities have incorporated specific climate resiliency work into a regulation plan, but is aware that several northeast utilities have pursued focused climate resiliency efforts within the last year or more, including, but not limited to, Central Maine Power, New York State Electric and Gas, Rochester Gas & Electric, Consolidated Edison, Eversource-CT (CL&P), Eversource-NH, and Eversource-MA.

Person/s Responsible for Response: Brian Otley & Mike Burke
Title of Person/s: Senior VP and Chief Operations Officer; Chief Field Operations Executive
Date: February 25, 2019

Q:PSD:GMP.3.13. Please refer to page 13, lines 2–11 of Mr. Ryan's testimony for the following requests:

a. Please identify all categories of costs and revenues, by account, that will be forecast at the start of the proposed multi-year rate plan;

b. If it has not previously been provided to the Department, please provide the most recently updated forecast that GMP has completed for each account listed in response to subpart (a) above;

c. Please identify each individual cost-of-service adjustment for one-time benefits included in GMP's 2019 rates (please refer to request Q:PSD:GMP.3.7 above) that GMP expects to be necessary at the onset of the first year of the multi-year rate plan.

A:PSD:GMP.3.13.

a. As Mr. Ryan notes on Page 12, lines 3–10 of his rebuttal testimony, "[u]nder GMP's revised proposal, once non-power costs have been locked, the only annual changes that will occur will be in the areas of costs the Department agrees should be adjusted annually. These would be limited to a) power supply costs and revenue forecasts, b) any changes in return on equity based on overall market condition changes, along with associated income tax changes related to the change in return on equity, and c) the derivative impact the overall annual change in the revenue requirement has on Gross Revenue and Fuel Gross Receipts taxes. Any other changes would have to be specifically authorized by the Commission under the Plan."

   Attachment 1 to Mr. Ryan's Exhibit GMP-ER-1(Rev.) identifies the specific treatment for each account. The column marked "Method to Establish in Annual Base Rate (Feb 4, 2019 Rebuttal)" identifies which categories of costs and revenues will be forecasted and locked at the start of the proposed Multi-Year Regulation Plan as well as those which will be updated annually.

b. Please see the response to Q:PSD:GMP.3.1.

c. The specific "one-time benefits" that require adjustment from the 2019 Rate Period include the $8.3M in proceeds from the sale of Utopus as well as the $12M in Day 1 gain and developer fees associated with the JV Solar/Battery projects, which were both returned to customers via the "Depreciation and Amortization" categorization of costs found on Schedule 1 of Exhibit GMP-ER-1. GMP would adjust this category of costs in its initial forecast of non-power costs over the three-year MYRP period to account for this change. GMP's Revised Plan also includes a smoothing adjustor that would help smooth out the rate impact of this change over the term of the Plan.

Person/s Responsible for Response: Rob Bingel
Title of Person/s: Manager, Forecasting & Analytics
Date: February 25, 2019

Requests in Response to Rebuttal Testimony of James Coyne

Q:PSD:GMP.3.14. Please refer to pages 11–12 of Mr. Coyne's rebuttal testimony, where he states that "MYRPs use cost of service to determine the revenue requirements in future plan years generally based on a forecast of the revenue requirement for each year of the Plan at the onset."

a. Please identify any multi-year rate plans ("MYRPs") that Mr. Coyne reviewed as a basis for this assertion;

b. Please state whether Mr. Coyne is aware of any MYRP that includes an index formula or a rate cap, either for the entire plan or individual components of the plan. If so, please identify any such MYRP.

A:PSD:GMP.3.14.

a. To support his assertion, Mr. Coyne offers the following examples of MYRPs that do not include a price index and are based primarily on future year forecasts at the onset of the plan. The below should not be considered an all-inclusive list:

   i. The California utilities employ MYRPs based on a hybrid of forecasts and escalation factors. For example, in PG&E's most recently approved rate plan it proposed an attrition mechanism which was based on a forecast of various components of its revenue requirement. In settlement, however, parties agreed to a fixed revenue attrition increase per year that was based in part on PG&E's evidence. *See* Attachment GMP.DPS3.Q14.a.1 at 47–52 for a discussion of PG&E's proposed and settled-upon attrition mechanism.

   ii. The New York utilities operate under MYRPs. A recent example is Central Hudson: the utility received approval for a three-year plan in June 2018 which specified annual increases to the revenue requirement for each year of the rate plan. *See* Attachment GMP.DPS3.Q14.a.2 for the order approving Central Hudson's most recent rate plan.

   iii. The Ontario Gas utilities, Enbridge Gas Distribution, Inc. and Union Gas Ltd., employed MYRPs based on forecast revenue requirement elements under a build-up methodology, referred to as Custom IR Plans, for the 2014–2018 rate period. *See* Attachment GMP.DPS3.Q14.a.3 for details of the Enbridge Gas Distribution Plan.

iv. In Florida, utilities have settled on set revenue requirement increases based on anticipated increases in cost of service, with carve-outs for solar generation placed in service. *See* Attachment GMP.DPS3.Q14.a.4 for an example from Florida Power & Light Co.

v. In Georgia, Georgia Power has operated under its most recent MYRP since 2014 in which future revenue requirements are based on projected revenues and expenses. In addition, the requirements allow for carveouts for specific initiatives that are covered by riders. The Plan term was initially set to expire Dec. 31, 2016 but was extended through Dec. 31, 2019 due to the acquisition of AGL Resources by Southern Company, Georgia Power's parent. *See* Attachment GMP.DPS3.Q14.a.5 for the commission order approving the Plan.

b. Please refer to Table 3 on page 28 of Mr. Coyne's rebuttal testimony in which he has listed all recent plans of which he is aware that include an index formula for the entire plan. Mr. Coyne notes that the Vermont utilities have projected certain limited elements of their costs of service, such as operating expenses, using an indexing methodology in the past, as described further in Mr. Ryan's rebuttal testimony. Mr. Coyne also notes that of the examples provided above, PG&E projected its operating expenses based on escalation factors specific to each category of expense.

Person/s Responsible for Response: Jim Coyne
Title of Person/s: Senior Vice President, Concentric Energy Advisors, Inc.
Date: February 25, 2019

Q:PSD:GMP.3.15. Please refer to page 23, lines 17–19 of Mr. Coyne's testimony. Please state whether Mr. Coyne has done a comparison of GDP-PI against any "industry measure" of inflation for any time period within the most recent ten-year period for which data is available. If so, please describe the results of such comparison.

A:PSD:GMP.3.15. While Mr. Coyne has not personally conducted such an analysis, he relied on several sources which support the conclusion that an adjustment is necessary and typical when GDP-PI is used in the I-X formula. In Mr. Coyne's rebuttal testimony at 24, lines 3–8 he cites evidence presented and accepted in the Eversource proceeding, which shows that using an economy-wide measure of inflation, as opposed to an industry-wide measure, resulted in an adjustment to the X factor of -2.10. Mr. Coyne also attaches a Productivity Study ("Study") conducted by Dr. Mark N. Lowry with Pacific Economics Group Research, LLC ("PEG") related to Central Maine Power's 2014 Alt Reg Plan. In the Study, Dr. Lowry explains the need for an adjustment when using an economy-wide measure of inflation such as GDP-PI stating that, "[w]hen a macroeconomic inflation measure is used the ARM must be calibrated in a special way if it is to reflect industry cost trends." In this Study, Dr. Lowry goes on to explain the rationale for the adjustment between the economy and the industry and how it should be derived. *See* Attachment GMP.DPS3.Q15.2 at 17–19. Mr. Coyne also offers the attached March 2016 article by the U.S. Bureau of Labor Statistics that analyzes differences between GDP-PI and other inflation measures for the Department's review. *See* Attachments GMP.DPS3.Q15.1 - Eversource TFP Study, GMP.DPS3.Q15.2 - PEG Study CMP Alt Reg Plan 2014, and GMP.DPS3.Q15.3 - Comparing GDP-PI and CPI.

Person/s Responsible for Response: Jim Coyne
Title of Person/s: Senior Vice President, Concentric Energy Advisors, Inc.
Date: February 25, 2019

Requests in Response to Rebuttal Testimony of Douglas Smith

Q:PSD:GMP.3.16. Please confirm that $1.2 million per year maximum dead-band width represents less than 0.5% of GMP's power costs.

A:PSD:GMP.3.16. Yes, this dead-band range represents less than 0.5% of GMP's total annual power costs; however, GMP's financial exposure to potential variances in Component B power costs is much larger than the dead-band range, because GMP absorbs 10% of *all* variances outside of that range.

Person/s Responsible for Response: Douglas C. Smith
Title of Person/s: Chief Power Supply Executive
Date: February 25, 2019

Q:PSD:GMP.3.17. Please refer to page 18, lines 3–5 of Mr. Smith's rebuttal testimony, where he states that "weather-driven variances in GMP's load requirements and the output from some of its power sources tend to be adversely correlated with the spot market energy prices, or LMPs." With respect to this portion of Mr. Smith's testimony, provide copies of any analysis done by GMP to support the assertion that GMP's renewable generation is adversely correlated with LMPs.

A:PSD:GMP.3.17. Our view is based largely on our experience managing GMP's power supply and observations of market conditions over the past several years with increasing penetrations of renewable resources. With respect to GMP's renewable generation, Mr. Smith's statement is based on the understanding that the drivers of sustained variances in output from GMP's renewable generation (e.g., sustained sunny/cloudy conditions; sustained rainy/drought conditions; sustained windy/calm conditions) will tend to be present to a significant degree for the substantial fleet of similar (solar/hydro/wind) generators in New England. This dynamic should, all else equal, tend to increase the regional energy supply and exert downward pressure on LMPs when GMP has above-normal volumes of renewable generation, and decrease the regional energy supply and exert upward pressure on LMPs when GMP has below-normal volumes of renewable generation. GMP has not performed a statistical analysis to quantify the correlation of our renewable generation with LMPs; we expect to pursue additional analysis of this topic (through the hourly dispatch modeling project, and potentially other steps), and will share results with the Department when they become available.

Person/s Responsible for Response: Douglas C. Smith
Title of Person/s: Chief Power Supply Executive
Date: February 25, 2019

Q:PSD:GMP.3.18. Please refer to page 19, lines 3–9 of Mr. Smith's rebuttal testimony. Mr. Smith testifies that:

> **Higher costs to purchase load and lower revenue for GMP's generation sources each tend to increase GMP's net power costs. As a result, either type of weather-driven variance, increasing or decreasing GMP's load requirements, or its generation supply, has the potential to increase GMP's average Component B cost per kWh, and GMP's average costs over time reflecting a range of weather conditions and associated load requirements will likely turn out higher than indicated by a single "base case" analysis predicated on normal weather.**

Is this portion of Mr. Smith's testimony intended to imply that it is more likely that when generation is high, LMPs are low. If yes, then please explain why, and provide any relevant analysis regarding why an adverse outcome is more likely than, for example, generation from wind facilities is high during cold winter days when LMPs are high?

A:PSD:GMP.3.18. Mr. Smith's testimony on this topic is referring to variances in GMP's load requirements and generation sources. With respect to generation, yes—the concern here is that when weather conditions drive output from GMP's renewable sources above normalized values on a sustained basis, we believe it is more likely that LMPs will turn out below normal and, similarly, that sustained weather-driven declines in renewable output seem more likely to be associated with above-normal LMPs.

This expectation is based on the fact that the fleets of hydroelectric, solar PV, and wind generation in the region are substantial, and solar and wind capacity are increasing significantly. All else equal, high levels of output from these sources tend to reduce the amount of generation needed from other sources with higher variable costs, which would otherwise set the regional LMP. In short, above-normal renewable generation will tend to shift the regional stack of supply sources upward, while below-normal generation will tend to shift the supply stack downward. Directionally, this effect of additional electricity supply is similar to the Demand Reduction Induced Price Effect.(or "DRIPE") associated with reductions in electricity demand. For a sense of scale, the installed capacity of solar PV in New England is presently over 2,500 MW. The increase in output from this solar PV fleet on a sunny day compared to a cloudy day is substantial, comparable in magnitude to adding the output of one or more major thermal generating units to the New England electricity supply.

Temporary increases in renewable output could occur in combination with other conditions that tend to yield higher LMPs. For example, as cited in the question, higher than normal wind output sometimes occurs during colder than normal winter days when LMPs tend to be high, increasing the average value of GMP's wind output. Please note, however, that in this example the high LMPs would also have the offsetting effect of increasing GMP's average cost to purchase its load requirements—potentially by a comparable or greater amount. In addition, other credible combinations of generation outcomes (e.g., high wind during mild winter days when LMPs tend to be lower than average) would tend to lower the average value of GMP's wind output. It is reasonable to expect that if higher than normal generation occurs over a range of conditions across a month (e.g., including days that are relatively cold, mild, and near average), it will tend to lower LMPs by some amount. Please refer to A:PSD:GMP.3.17 for context on GMP's evaluation of this topic.

Person/s Responsible for Response: Douglas C. Smith
Title of Person/s: Chief Power Supply Executive
Date: February 25, 2019

Q:PSD:GMP.3.19. Please refer to page 22 of Mr. Smith's rebuttal testimony. Please state whether the hourly simulation model will address and capture the described adverse correlation between energy demand/supply and market prices.

A:PSD:GMP.3.19. The hourly simulation model has the potential to capture some of the adverse correlation between energy demand/supply and market prices and its effect on GMP's net power costs. However, as noted in Mr. Smith's rebuttal testimony at 18, a single "base case" analysis based on most-likely outcomes (e.g., normal load levels, long-term average output from renewable sources) is not likely to fully capture the effect—particularly changes in net power costs associated with sustained periods of loads or generation significantly above/below normal.

Person/s Responsible for Response: Douglas C. Smith
Title of Person/s: Chief Power Supply Executive
Date: February 25, 2019

Dated at Burlington, Vermont this 25th day of February, 2019.

As to Objections:

____

Geoffrey H. Hand, Esq.
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Dated at Colchester, Vermont this 15th day of February, 2019.

Respondent Signature

By: ____________________
Rob Bingel
Green Mountain Power

Subscribed and sworn before me this 15th day of February, 2019.

____
Notary Public
Name of Notary: ~~1-31-2~~ Penny Collins
Commission Expires: 1.31.21

Dated at Colchester, Vermont this 15th day of February, 2019.

Respondent Signature

By: Dawn Bugbee
Dawn Bugbee
Green Mountain Power

Subscribed and sworn before me this 15th day of February, 2019.

Penny J. Collins
Notary Public
Name of Notary: Penny Collins
Commission Expires: 1.31.21

Dated at Colchester, Vermont this 15th day of February, 2019.

Respondent Signature

By: Michael Burke
Michael Burke
Green Mountain Power

Subscribed and sworn before me this 15th day of February, 2019.

Penny J. Collins
Notary Public
Name of Notary: Penny Collins
Commission Expires: 1.31.21

Dated at MARLBOROUGH, Massachusetts this 19th day of February, 2019.

Respondent Signature

By: JMCoyne
James Coyne
Concentric Energy Advisors, Inc.

Subscribed and sworn before me this 19th day of February, 2019.

Deborah-Jean McGonigal
Notary Public

Name of Notary: DEBORAH-JEAN MCGONIGAL

Commission Expires: 11-2-2023

DEBORAH-JEAN MCGONIGAL
Notary Public
Commonwealth of Massachusetts
My Commission Expires
November 2, 2023

Dated at Colchester, Vermont this 20th day of February, 2019.

Respondent Signature

By: ______________________
Brian Otley
Green Mountain Power

Subscribed and sworn before me this 20th day of February, 2019.

____
Notary Public
Name of Notary: Penny J. Collins
Commission Expires: 1.31.21

Dated at Rutland, Vermont this 15 day of February, 2019.

Respondent Signature

By: Edmund Ryan
Edmund Ryan
Green Mountain Power

Subscribed and sworn before me this 15th day of February, 2019.

Notary Public
Name of Notary: 1/31/2021
Commission Expires:

JOSEPH McKEARIN NOTARY PUBLIC RUTLAND COUNTY, VT

Dated at Colchester, Vermont this 20th day of February, 2019.

Respondent Signature

By: Douglas C. Smith
Doug Smith
Green Mountain Power

Subscribed and sworn before me this 20th day of February, 2019.

Penny J. Collins
Notary Public
Name of Notary: Penny J. Collins
Commission Expires: 1.31.21

Dated at Rutland, Vermont this 15th day of February, 2019.

Respondent Signature

By: Karen Young
Karen Young
Green Mountain Power

Subscribed and sworn before me this 15th day of February, 2019.

Notary Public
Name of Notary: 7/31/2021
Commission Expires:

JOSEPH McKEARIN
NOTARY PUBLIC
RUTLAND COUNTY, VT