

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. 18-0974-TF

Tariff filing of Green Mountain Power requesting a)
5.45% increase in its base rates effective with bills)
rendered January 1, 2019, to be fully offset by bill)
credits through September 30, 2019)

Order Entered: _____

GREEN MOUNTAIN POWER’S PROPOSED FINDINGS OF FACT & ORDER

I.	INTRODUCTION.....	2
II.	PROCEDURAL HISTORY.....	3
III.	POSITIONS OF THE PARTIES	6
IV.	PROPOSED FINDINGS & DISCUSSION.....	8
	A. Cost of Service and Rate Base.....	8
	B. Capital Projects.....	16
	i. JV Solar/Storage Projects	17
	ii. Tesla Powerwall 2.0 Program.....	22
	iii. T&D Projects	42
	iv. Heat Pump Water Heaters.....	57
	C. Capital Structure & Return on Equity (“ROE”).....	59
	D. Settlement with GlobalFoundries	63
	E. Power Supply.....	68
V.	CONCLUSION.....	72
VI.	PROPOSED ORDER.....	73

I. INTRODUCTION

This case concerns the Vermont Public Utility Commission's ("PUC" or the "Commission") investigation into the request of Green Mountain Power Corporation ("GMP") for an overall rate adjustment of 5.45%, to take effect on January 1, 2019, and to be fully offset by bill credits through September 30, 2019. Over the course of the proceeding, GMP has reduced its request to 5.43%, and the Department of Public Service ("DPS" or the "Department") has proposed an increase of 5.30%. DPS and GMP witnesses agree on many items related to the rate request. The other parties to the proceeding, GlobalFoundries U.S. 2 LLC ("GlobalFoundries"), GMP's largest customer, and Renewable Energy Vermont ("REV") have not raised any issue with GMP's request. GlobalFoundries has entered into a settlement agreement and Term Contract resolving its concerns, which is currently before the Commission in Case No. 18-3160-PET. After conducting a seven-month investigation into GMP's request and considering the positions of the parties and all public comments received, the Commission concludes that GMP's proposed cost of service will result in just and reasonable rates. Therefore, the Commission approves GMP's requested increase of 5.43% to its existing rates, to take effect January 1, 2019,¹ but which will be fully offset by bill credits during the rate period, resulting in a rate reduction of -0.90% until September 30, 2019. The Commission's decision is based upon the evidence in the case and the findings of fact below.

¹ GMP's petition initially requested that the rate increase take effect January 1, 2019. However, due to weekend days and holidays, GMP's last billing cycle of 2018 will end on January 2, 2019. Therefore, GMP's first billing cycle of 2019 will begin on January 3, 2019.

II. PROCEDURAL HISTORY

1. On April 13, 2018, GMP filed a cost of service and revised tariff with the Commission accompanied by testimony and exhibits, requesting an overall 5.45% increase to its rates to take effect on January 1, 2019.
2. On May 1, 2018, the Commission issued a Memorandum requesting that the Department of Public Service file its Recommendation by May 11, 2018.
3. On May 2, 2018, the Department of Public Service filed its Recommendation for Investigation.
4. On May 4, 2018, GlobalFoundries filed a Motion to Intervene. On May 11, 2018 and May 17, 2018, respectively, GMP and the DPS filed responses to GlobalFoundries' intervention motion, with no objection to GlobalFoundries' participation in the proceeding. On May 24, 2018, the Commission ordered GlobalFoundries' intervention request granted.
5. On May 10, 2018, the Commission issued an Order opening an investigation and suspending the effectiveness of the filing until a final determination is issued.
6. On May 14, 2018, GMP and the Department executed a Protective Agreement. On May 23, 2018, GMP filed that Agreement along with a Motion for Protective Order with the Commission. The Commission issued the Protective Order on July 2, 2018.
7. Beginning in June 2018, the parties engaged in three rounds of discovery. The Department served three rounds of discovery requests on GMP and GMP served two rounds of requests on the Department.

8. On May 24, 2018, a Prehearing Conference was held at which the parties developed a procedural schedule which was adopted by the Commission in its June 13, 2018 Prehearing Conference Order. The Commission further scheduled a workshop for July 13, 2018 to review GMP's rate request, welcoming the public to attend.
9. On June 4, 2018, a Public Comment was filed by Mark Braskie via ePUC. Patricia Araujo and Garet Richardson also filed Public Comments via ePUC on June 5, 2018 and June 13, 2018, respectively. All comments were acknowledged by the Commission.
10. Public Hearings were held June 19, 2018 in Rutland, June 21, 2018 in St. Albans, and June 25, 2018 in Brattleboro.
11. On June 27, 2018, Renewable Energy Vermont filed a Motion to Intervene. On June 29, 2018, GMP filed its response not objecting to REV's intervention. The Commission approved REV's intervention by Order dated July 19, 2018. REV participated in discovery for one round, issuing requests to the Department on October 12, 2018, to which the Department responded on October 19, 2018.
12. On July 13, 2018, the Commission held its workshop in this proceeding. During the workshop, the Commission issued information requests to GMP which GMP answered by filing dated July 26, 2018. GMP also filed, on July 17, 2018 via ePUC, a presentation it gave at the workshop.
13. On July 30, 2018, GMP filed a motion to change the schedule for the remainder of the proceeding. GMP's proposed schedule was adopted by the Commission by order dated August 3, 2018.
14. On August 10, 2018, the Department filed direct testimony and exhibits and GlobalFoundries declined to file direct testimony by letter to the Commission.

15. On August 30, 2018, the Commission ordered GMP to respond to the Commission's own information requests by September 12, 2018.
16. On September 11, 2018, GMP filed a petition for approval of a Term Contract with GlobalFoundries (Case No. 18-3160-PET). On September 12, 2018, GMP filed its responses to the Commission's information requests together with its rebuttal testimony, exhibits, and a revised list of testimony of exhibits, including testimony from Kristin Carlson regarding the Term Contract between GMP and GlobalFoundries and indicating that the agreement resolves any concerns in this case between the parties.
17. On October 8, 2018, the Department and GlobalFoundries filed surrebuttal testimony and exhibits. On October 23, 2018, the Department filed supplemental testimony and one revised exhibit from one witness.
18. On October 25, 2018, the evidentiary hearing was convened in this proceeding in Montpelier, Vermont, with attendance by GMP and the Department.

III. POSITIONS OF THE PARTIES

This section describes the parties' overall recommendations. The parties' positions on individual issues are discussed in further detail in the relevant sections below.

GMP

GMP's initial rate request was for an increase of 5.45% to base rates to be fully off-set by bill credits resulting from changes to federal tax law, resulting in a rate reduction of -0.90% until September 30, 2019. Following rebuttal testimony and the evidentiary hearing for this case, GMP has made several adjustments to its proposed cost of service with a final proposed rate need of \$23.531 million, or an increase to current rates of 5.43%. GMP provides that this rate need is supported by the record evidence and will result in just and reasonable rates. The capital structure included in GMP's cost of service provides for a 9.3% return on equity on an annualized basis, which GMP previously agreed to with the Department as part of the settlement between the parties in last year's rate case (Case No. 17-3112-INV).

GMP's final rate increase request takes into account a number of adjustments upon which GMP and the Department witnesses agree, including adjustments for the Regional Network Service ("RNS") rate; Renewable Energy Credit ("REC") inventory; the cost of long-term debt; updated Transco impacts on return and earnings from affiliates; as well as the impact from a settlement agreement between GlobalFoundries and GMP in this and two other GMP proceedings.

The Department

The Department initially proposed a rate increase of 4.70%, but subsequently amended this proposal to correct for certain minor calculation errors and other adjustments its witnesses agree are appropriate. The Department's final recommendation is that the Commission approve a 5.30% rate increase for GMP. The Department continues to challenge the inclusion of the Tesla Powerwall 2.0 Program, Heat Pump Water Heaters, and several Transmission and Distribution projects (including individual and blanket projects) in GMP's rate base, contending that GMP has not provided sufficient analysis to justify including them in the case.

GlobalFoundries

GlobalFoundries provided testimony in support of its settlement agreement with GMP, which among other provisions, freezes GlobalFoundries' rates for the rate period and the following three years, provides a downward adjustment of 2.7% as recommended in GMP's class allocation rate design petition, and requires GlobalFoundries to forgo any credits or collections associates with tax reform to the benefit of other GMP customers, most major storm recovery, and the power supply adjustor. GlobalFoundries' testimony also discussed its role as a large employer and the largest manufacturer in Vermont, as well as GMP's only transmission class customer, and detailing the company's electricity needs and costs. GlobalFoundries did not recommend any changes to GMP's proposed cost of service.

REV

REV did not provide testimony in the proceeding or recommend any changes to GMP's proposed cost of service.

IV. PROPOSED FINDINGS & DISCUSSION

Based on the prefiled testimony and evidence in the record, the Commission hereby makes the following findings of fact.

A. Cost of Service and Rate Base

1. GMP's initial rate request was filed on April 13, 2018, requesting an increase of 5.45% to its base rates, to take effect with bills rendered January 1, 2019. GMP proposed to more than offset this adjustment by a bill credit until September 30, 2019 of \$27.4 million from federal income tax savings, which is approximately 6% of current base rates. Ryan pf. at 2-3.
2. GMP's current base rates went into effect for the rate period beginning January 3, 2018, based upon the Commission's Order in the 2018 GMP rate case (Case No. 17-3112-INV). Ryan pf. at 2.
3. GMP's filing is based on a nine-month test period 2017 (January 1, 2017–September 30, 2017), a fifteen-month interim period (October 1, 2017–December 31, 2018) for rate base additions, and a nine-month rate period 2019 (January 1, 2019–September 30, 2019) in order to align its rate request with GMP's fiscal year. Ryan pf. at 3.
4. GMP's rate period cost of service was developed by taking costs incurred in the test period and adjusting for known and measurable changes to these costs so that the net costs reflect, as closely as possible, the projected level of net costs that will occur in the rate period. Ryan pf. at 6-7.
5. The \$27.4 million bill credit represents taxes collected from customers in prior years, as required under federal tax rates then in effect, that fall outside the class of taxes on items

federal regulations mandate must be returned on a straight-line basis over the depreciable life of the asset. Because of the reduction in the federal income tax rate, GMP will now not have to eventually pay to the IRS this \$27.4 million which has been collected from customers and deferred. Ryan pf. at 12-13.

6. Other than the request to return nonrecurring federal income tax savings as a bill credit, the rate filing affects base rates only. Power supply and storm adjustors that are governed by GMP's regulation plan are subject to a separate schedule for filings and approvals, and their periods of adjustment vary. They are not covered by this rate filing but will be addressed in the multi-year regulation plan proceeding that is currently taking place in front of the Commission (Case No. 18-1633-PET). Ryan pf. at 7.

Use of Forecast Data

7. In developing its cost of service, GMP utilized forecasts developed by Itron for load and revenue and did not exclude capital costs associated with growth. According to GMP this methodology provides greater accuracy in this time of declining load and retail sales than the traditional methodology of adjusting a test period for certain known and measurable changes. Ryan pf. at 8.
8. The difference between the forecasted sales and test period sales is small, and is largely attributable to factors that would be captured in normalizing adjustments (e.g., adjustment of sales volumes to reflect normal weather conditions) or known and measurable adjustments to the test period sales to reflect discrete influences (e.g., increases in net-metering volumes, increases in end-use efficiency, additional load from electrification

activities, discrete/spot customer load increases) that are expected to increase or decrease sales volumes. Smith pf. at 13.

9. The Department supports the use of forecasted sales and revenues rather than test-year sales and revenues, and states that this approach is reasonable in light of current market conditions and GMP sales trends. Winn pf. at 27.
10. The primary effect of using forecasted load (as opposed to test-year load) is added stability in rates. Stability in rates is particularly important to large users of electricity such as industrial and large commercial customers. McNamara pf. at 5.
11. Energy efficiency and net-metering are causing year-over-year reductions in loads, resulting in higher test-year sales that are likely to be higher than forecasted sales. Using higher test-year sales and adjusting for lower sales would result in a subsequent increase for customers. By using forecasted sales, customers should expect to see a slightly larger rate increase up-front but less rate volatility due to declining sales over the course of the rate period. McNamara pf. at 5-6.

Customer Growth

12. The Department also supports the inclusion of costs related to customer growth in the 2019 rate period, noting that it would be impractical to exclude customer growth-related costs if GMP is operating under a multi-year regulation plan, as GMP anticipates. Not including growth in this filing would subsequently require GMP to incur multiple years of regulatory lag related to the recovery of the growth related costs, or require an annual adjustment mechanism to true-up the actual growth related costs that are incurred. Winn pf. at 27.

13. Under the ratemaking principle of matching revenues and costs, a similar matching can be achieved in this case by using rate year (projected) sales and including growth-related plant. Winn pf. at 29.
14. The Department further states that the methods and assumptions used by Itron, GMP's consultant in the case, are generally sound and reasonable and are also consistent with those used in the 2018 VELCO Long Range Transmission Plan. McNamara pf. at 6.

Rate Drivers

15. GMP's rate need is primarily driven by significant external cost pressures, particularly in power costs. GMP states that nearly all of its total rate need is driven by power and transmission costs, including above-market solar prices imbedded in net-metering and other regional and state renewable energy policy costs, items GMP's rates must support but GMP does not control. Meanwhile, retail sales are expected to continue their recent downward trend in the 2019 rate period, compared to the current rate period, due in part to net-metering and efficiency, with a decline of nearly 2%. Ryan pf. at 11.
16. GMP has partially mitigated the significant upward rate pressure through decreases included in other cost categories, such as those driven by recurring benefits from the federal income tax reduction, by important customer benefits delivered upfront by GMP's JV Solar/Battery projects, and by VT Transco's sale of an interest in a separate entity, Utopus. As in the past five years, increased costs are also partially offset by higher-than-expected merger savings for customers, which total more than \$13.8 million for the rate period. Ryan pf. at 11-12.

Adjustments to Cost of Service

17. In its prefiled testimony, the Department recommended nine adjustments to GMP's proposed cost of service, amounting to approximately \$3.426M, and resulting in a reduced rate increase of 4.70%. Thomas pf. at 4-9; Exh. PSD-JMT-2.
18. The nine adjustments proposed by the Department relate to the following items: 1) the Tesla Powerwall 2.0 Program; 2) Heat Pump Water Heaters; 3) Distribution Line Blankets; 4) Distribution Lines Large Projects; 5) Transmission Lines; 6) Capital Structure; 7) Power Supply Cost; 8) Renewable Energy Certificates; and 9) ADIT adjustment for the capital projects in 1-5. Thomas pf. at 4-5.
19. In rebuttal testimony, GMP revised its rate request to 5.43%, which represents a revenue deficiency of \$23,531,000. The revised cost of service provided with the filing took into account a number of adjustments, including: 1) a slight increase in the December 2018 Tax Reform Regulatory Liability line item; 2) an additional investment by GMP in Transco; 3) a slight delay in the installation schedule for the Tesla Powerwall 2.0 Program; 3) a reduction of \$1.43M in the plant in service amounts for various "Distribution Line Projects Large"; 4) GMP's acceptance of a reduction to the long-term debt and RNS transmission costs to reflect actual costs; 5) GMP's agreement to record a return on the Renewable Energy Credit ("REC") inventory based on GMP's short-term debt bank loan interest rate as recommended by the Department; and 6) the rate-freeze agreement between GMP and GlobalFoundries as part of a global settlement in multiple GMP proceedings. Ryan rebuttal pf. at 2-3; Exh. GMP-ER-1(Rev.); Exh. GMP-ER-17.

20. In surrebuttal, the Department revised its proposed adjustments to GMP's cost of service for a rate need of 4.96%. This included an additional seven adjustments correcting errors in the Department's previous cost of service proposal and incorporating adjustments agreed to by GMP. Winn surrebuttal pf. at 2-3; Thomas surrebuttal pf. at 2-6; Exh. PSD-JMT-3.
21. On October 23, 2018, the Department filed supplemental testimony further revising its adjusted cost of service model to correct for an error with the Tesla Powerwall 2.0 Program, which the Department had previously removed from rate base in its model without also removing the benefits of the program, and to accept a number of T&D projects the Department determined should not be removed from rate base in light of the resolution of the 2018 Rate Case (Case No. 17-3112-TF). Thomas supp. pf. at 3; Exh. PSD-JMT-3(Rev.).
22. On November 9, 2018 DPS filed a final update on its proposed Cost of Service, incorporating changes to the Department's proposed T&D adjustments. PSD Brief Attachment 2.
23. With these adjustments, the Department's final proposal for GMP's rate need is 5.30%, or a deficiency of \$22.955 million, compared to the 5.43% proposed by GMP for a deficiency of \$23.531 million. Exh. GMP-ER-17(Rev.); PSD Brief Attachment 2.

Discussion

Before turning to our conclusions with respect to GMP's cost of service and resulting rate need, we first address GMP's use of forecasting data to develop its cost of service model. Under the traditional methodology for determining rate need, it is standard practice for a utility to

prepare its cost of service filing based on a historic test year, and then adjust this cost of service to account for known and measurable changes that will occur during the rate year.

As GMP pointed out in testimony from Mr. Ryan, this traditional methodology was developed when utilities were seeing sustained load growth, and as a result, use of historic test year data for purposes of setting load and revenue amounts in a rate filing was appropriate. However, in the current environment where loads are decreasing and there are increasing numbers of distributed resources, the traditional methodology would likely result in over-projecting sales and the need for a future adjustment.

As we have stated before in approving an average rate base method, “[o]ur goal and primary obligation is to set rates for the future that realistically and prudently reflect the costs that [a utility] will incur during the period for which the rates are set and which will afford [the utility] a fair opportunity—but not a guarantee—to earn a competitive return.”² While in prior cases we have declined to approve the use of forecasting where the primary justification was for the utility to achieve a certain level of financial earnings,³ here the parties have agreed that the use of forecasted load and revenue data is a reasonable approach that avoids the need to true up higher than forecasted sales that would likely result if test-year sales data were used instead. This will minimize the rate volatility to customers and result in just and reasonable rates that realistically and prudently reflect the costs incurred by GMP during the rate year. GMP and the Department also agree that in order to appropriately match costs with forecasted revenues, capital costs associated with serving new customer growth should be included. In light of this

² *In re Green Mountain Power*, Case No. 5282, Final Order at 6 (Dec. 20, 1988).

³ See, e.g. *In re Green Mountain Power*, Case No. 4661, Final Order at 3-4 (Dec. 20, 1982).

current environment, we find the use of forecasting data to determine sales and the inclusion of costs related to customer growth is a reasonable approach, and one supported by the Department.

Specifically, the Department states that it conducted an extensive review of GMP's forecasting methodology and determined that the use of forecasted sales will result in increased rate stability for customers by imposing a slightly larger rate increase up-front but avoiding the volatility associated with down-stream adjustments, and that this approach would also avoid regulatory lag in cost recovery for GMP. GMP also notes that the net effect of this change in methodology is small and largely attributable to factors that would be captured in normalizing or known and measurable adjustments but is important in the context of its proposed multi-year regulation plan. The Commission agrees with GMP and the Department that the use of forecasted load and revenue data for this cost of service filing is appropriate.

We turn now to GMP's rate base need. As we have explained before, “[a] utility’s rate base represents the unrecovered prudent investment in facilities dedicated to the provision of a public service. Upon this rate base, the utility earns a risk-adjusted return comparable to similarly situated companies.”⁴ We have also noted that investment in plant is typically the largest component of utility rate base, and that this investment is “constantly changing as the utility acquires new plant and performs periodic maintenance and replacement of its existing plant.”⁵ In approving GMP's rate base in this filing, the Commission's role is to determine the amount of plant investment for the test year and adjust for known and measurable changes.

⁴ *In re Green Mountain Power*, Case No. 17-3112-INV, Final Order at 10 (Dec. 21, 2017).

⁵ *Id.*

Upon the resulting amount of rate base, the utility is entitled to earn a risk-adjusted return comparable to other, similarly-situated companies.⁶

In this case, the difference between GMP's final cost of service and the Department's final proposed adjustments to GMP's cost of service is \$0.576 million, or \$576,000. This difference is based on the Department's recommended exclusion of several capital projects, namely the Tesla Powerwall 2.0 Program, Heat Pump Water Heaters, and a number of Transmission and Distribution ("T&D") projects, including two transmission line projects, one distribution line project, and several T&D blankets. We address the specific arguments made by each party and the basis for our conclusions with respect to these projects in Section B below, but conclude generally that GMP has met the standards for known and measurable expenses with respect to these projects to support including them in GMP's rate base. As a result, the Commission approves GMP's final rate need of 5.43%, based on a deficiency of \$23.531 million. Other aspects of the cost of service, including the cost of capital and return on equity and GMP's settlement with GlobalFoundries are addressed in more detail in Sections C and D below.

B. Capital Projects

24. A focus of the MOU between GMP and the Department in last year's rate case was GMP's process for approving and documenting the costs for proposed capital projects. Exhibit 2 to the MOU contained the parties' agreement as to what standards for capital

⁶ *Id.* at 10-11.

project documentation were required to meet the “known and measurable standard.”

Otley pf. at 19; Exh. GMP-BO-2.

25. As part of the MOU, GMP agreed to reduce the threshold for what constitutes a “major project” from \$3 million to \$2 million in budget costs, and to limit the projects included in GMP’s capital blankets to projects less than \$250,000 in cost. Otley pf. at 20; Exh. GMP-BO-2.
26. Mr. Winn from the Department acknowledged that GMP’s capital documentation in this case demonstrated improvement in project support documentation. Winn pf. at 14.
27. However, the Department’s capital witnesses raised concerns about a number of specific capital projects, as well as GMP’s general use of blankets, despite the MOU from last year setting out the agreed-upon documentation standards for both major and minor capital projects and blankets. Winn pf. at 15-16.

i. JV Solar/Storage Projects

28. Department witnesses Winn, McNamara, and Myers raised concerns with the three JV Solar/Storage projects included in the filing, questioning the physical need for the projects and GMP’s least-cost analysis of the Projects. DPS also expressed concern about the Project’s payback time, the amount of risk borne by GMP’s customers, and the way GMP is accounting for the year-one hypothetical book value at liquidation and the up-front developer fee for the projects. Winn pf. at 23-26; McNamara pf. at 2-3; Myers pf. at 12-17.
29. The Department noted that there will be an ongoing need to manage intermittent distribution generation and increasing amounts of less traditional load profiles in the

amount of electric vehicles and cold climate pumps increase and that battery storage will be a useful tool in this endeavor. The Department further noted that allowing GMP flexibility in developing these projects now, before more battery storage projects come on-line, will provide greater economic benefit to customers. McNamara pf. at 3.

30. The Department stated that it supports inclusion of the Projects in rate base, contingent on the development of a reasonable financial assurance requirement related to the expected value of the projects that appropriate balances risks between GMP and its ratepayers. McNamara pf. at 3; Winn pf. at 26.
31. GMP states that the regulatory and financial risks for the Project are typical for any long-term project and are not unique to this set of projects, nor do they present any new level of risk to GMP customers. Shields rebuttal pf. at 8-13.
32. GMP further emphasizes that the estimated value of the Projects' output over their life exceeds the estimated costs by a significant margin, such that it is highly likely the Project would still provide a benefit for customers even if actual outcomes turn out less favorably relative to current assumptions. GMP further notes that while planners focus primarily on risk factors and often lean toward "down the middle" forecasts, upside potential also exists for these Projects and actual outcomes could turn out more favorably and produce higher value for customers. Shields rebuttal pf. at 12.
33. With respect to the Department's recommendation that the projects be backed by a financial assurance, GMP states that requiring such a financial assurance is neither necessary or appropriate; the projects represent real services and operational savings for customers that should not require the addition of a burdensome financial assurance; and

that existing regulatory mechanisms provide sufficient protection for customers for investments of this type. Shields rebuttal pf. at 17-19.

34. Following discussions between GMP and the Department, the parties executed a MOU regarding the three projects, which provides a framework to measure the financial and operational performance for the batteries for all three JV Solar/Storage projects in the case relative to GMP's projected benefits and to provide limited but meaningful customer financial assurance related to that performance under the conditions set forth in the MOU. Exh. PSD-BEW-4.
35. The MOU also includes provisions to be applied prospectively regarding GMP's selection of future battery storage projects, and to assure that customers receive the benefits of the JV Projects batteries' projected financial and operational performance (e.g., meeting monthly and annual peaks) ("the Financial/Performance Assurance"). Exh. PSD-BEW-4 §§ 1, 2, 3.
36. Under the Financial/Performance Assurance, regarding the battery aspects of the JV Projects, GMP has calculated the projected gross net present value ("NPV") for its first 10 years. After 5 and 10 years of operations, GMP will prepare an actual 10-year NPV for this aspect of the JV Projects, based on actual performance and market data. Exh. PSD-BEW-4 § 3.
37. If the actual 10-year NPV differs from the projected NPV by more than 15 percent (either above or below), a sharing mechanism will be triggered. The sharing mechanism comprises two parts: a Volume Variance, based on GMP's battery asset management performance; and a Market Price Variance, based on differences between projected and actual market pricing for this component. Eighty percent of the Volume Variance

- (whether positive or negative) will be retained by GMP, and twenty percent will go to customers. Regarding market price variance, GMP will retain ten percent of the Market Price Variance (whether positive or negative), with the other ninety percent flowing to customers. Exh. PSD-BEW-4 § 3(d).
38. If the actual 10-year NPV differs from the projected NPV by less than 15 percent, GMP retains 100 percent of the variance, within the deadband, whether positive or negative. Exh. PSD-BEW-4 § 3(c).
39. The MOU states that the parties agree that the Financial/Performance Assurance applies narrowly and specifically only to the JV Projects and shall not apply more broadly now or in the future to other GMP projects, generation or power choices. Exh. PSD-BEW-4 § 15.
40. At no point will the Financial/Performance Assurance provide for a positive benefit to GMP if the Total Variance is negative. Exh. PSD-BEW-4 § 4.
41. The Department states that the MOU sufficiently addresses its concerns with the JV Solar/Storage Projects and recommends that they be included in rate base so long as the Commission adopts the assurance mechanisms agreed to by the parties in the MOU. Winn surrebuttal pf. at 18.

Discussion – JV Solar/Storage Projects

Both GMP and the Department have supported inclusion of the JV Solar/Storage projects in rate base since the beginning of this proceeding, the only issue being the inclusion of a financial assurance mechanism to protect customers from what the Department has presented as potential downside risks associated with the projects. GMP has pointed out that there are

existing regulatory mechanisms, including the economic usefulness doctrine,⁷ which protect customers in the event that an investment does not turn out to be profitable for customers in future, and that these projects do not pose any unique or unusual risks when compared to other long-term utility asset investments. However, stating a wish to resolve the issues with respect to the financial performance of these projects with respect to this case and the Section 248 proceedings for each individual project, the parties have come to agreement for terms of a financial assurance as outlined in the terms of the MOU.

We agree with GMP that there are regulatory mechanisms such as the prudence and used-and-useful standards that protect customers with respect to a utility's investment choices, and GMP has included sufficient evidence in its filing to show that the projects will be beneficial to customers. However, we have no objection to the inclusion of the agreed-upon financial assurance, as it is appropriately tailored to the performance of the battery aspects of the project (as opposed to a full guarantee of all benefits forecasted), and will therefore provide added protection for customers sought by the Department without imposing an untenable amount of added financial burden on the utility that could stop important innovations. We note that the Department has not raised a known and measurable challenge to the projects, or provided any affirmative evidence showing a likelihood that the projects will not meet the projected economic benefits, and we therefore approve the inclusion of all three projects in rate base, subject to the terms of the MOU as laid out therein.

⁷ See, e.g., *In re Citizens Comm. Co.*, Case No. 6596, Final Order at 39 (Jul. 15, 2002), stating that the economic usefulness test “furthers the purpose of regulation as a substitute for competitive markets, by assigning some (but not all) of the risk of uneconomic decisions to companies. The test produces equitable results; although regulation may limit the upside for investors should a utility’s decision prove to be especially beneficial, the economic usefulness test symmetrically limits their downside risk by sharing the financial consequences of uneconomic decisions.”

ii. Tesla Powerwall 2.0 Program

42. GMP's proposed rate base additions also include the Tesla Powerwall 2.0 pilot program. Castonguay pf. at 8; Exhibit GMP-JC-1.
43. The Tesla Powerwall Program is part of GMP's innovative energy transformation efforts. Castonguay pf. at 2-4.
44. These projects focus on new, low-carbon, distributed energy technology that support Vermont's energy policy, reduce power costs, introduce new revenue streams to benefit customers, and provide customers with options to transition off of traditional fossil-fuel systems for heating, transportation, and backup power. Castonguay pf. at 3,8.
45. These projects are part of GMP's proactive approach to the challenges of the current energy landscape, seeking to find innovative solutions to combat rising costs and declining sales, and to offer new energy products and services that enhance GMP's customer experience. Castonguay pf. at 3.
46. GMP is developing these resources to address a number of significant challenges facing electric utilities and customers at this time. GMP is experiencing declining sales of traditional bulk delivery energy while demands of the system are increasing due to 1,000s of customers now acting as generators. GMP has lower kilowatt-hour ("kWh") sales today than at the end of 2003. Castonguay pf. at 5.

47. Regional grid and transmission costs that are out of GMP's control are also increasing, pointing to a future that could entail double-digit rate increases. For example, ISO-New England and the transmission companies in New England project that they will spend over \$2 billion on new transmission infrastructure over the next four years, all of which is paid for by New England customers. These uncontrollable cost pressures will continue to mount, while sales will more likely continue to decline further. Castonguay pf. at 5.
48. Although GMP has lower overall kWh sales, there are more connections and complexity on the grid today, from thousands more sources and locations. This is because of the tremendous growth of distributed generation, projects that connect directly to the distribution system, in particular those defined as "net-metering" and standard offer projects. In fact, in just the past few years, net-metering has grown from a total of about 5 MWs on the GMP system to over 150 MWs, with another 40 MWs proposed, and it continues to grow. Castonguay pf. at 5.
49. In addition, distributed solar is reducing what used to be a daytime peak, causing a new, lower peak, to show up later in the day, typically after daylight hours. This means that as additional solar is added, it has much less of a benefit against the peak, and also points to why energy storage is arising as an important tool to further reduce the costs of peaks. Castonguay pf. at 5-6.
50. Energy Transformation projects like the Tesla Powerwall program create new value streams and allow GMP to develop tools for grid management for the benefit of all customers, while continuing to reduce reliance on traditional electricity sales to keep costs low. Castonguay pf. at 6.
51. GMP has four goals for its energy transformation projects:

1. Deliver increased resiliency in new ways to all customers, including through grid management and balancing.
2. Create new value streams, including revenues from new non-traditional sources, that flow back to all customers and reduce rates.
3. Deliver services and a platform that enable customers to reduce their carbon footprints while increasing their comfort and saving money on total energy consumption.
4. Strategically partner with customers as well as third parties to deliver more innovative program offerings in order to achieve GMP's goals, as well as Vermont's energy goals.

Castonguay pf. at 6-7.

52. The Tesla Powerwall 2.0 Program helps achieve these goals. The program allows GMP customers to install a lithium-ion Tesla battery with a 13.5kWh capacity in their home. The battery is controlled by GMP and can be used to reduce regional capacity and transmission costs for all GMP customers by discharging the batteries during peak load events. The Powerwalls will also be used by host customers for backup power in the case of an outage. Castonguay pf. at 8; Castonguay rebuttal pf. at 5-6.
53. The program offers customers new ways to create home resilience without a fossil-fuel-based backup generator, while allowing for load control and balancing for the benefit of all GMP customers. Castonguay pf. at 8.
54. In exchange for sharing access to the battery with GMP, the cost of the battery unit for host customers is reduced to either a monthly charge of \$15/month for ten years or a one-

time charge of \$1,500, making it more affordable for customers to participate while also creating a stored energy resource that can be strategically discharged to lower costs for all customers. Castonguay pf. at 8.

55. The Tesla Powerwall 2.0 pilot was filed in the summer of 2017. 10/25/18 Tr. at 59 (Castonguay).
56. The Department did not file any formal comments on the pilot filing. 10/25/18 Tr. at 59 (Castonguay).
57. The program has been extremely popular with GMP customers, and GMP has more customers interested in Powerwall units. Castonguay rebuttal pf. at 4.
58. A total of 694 units were installed as of August 2018, with an additional 930 units under contract, and more customers are in various stages of the sign-up process than can be accommodated within the 2000-unit cap on the pilot program. Castonguay rebuttal pf. at 4.
59. Because of the level of customer interest and because many customers ending up procuring two Powerwall units instead of a single unit, GMP will hit its Innovation Pilot cap of 2000 and will not be able to provide batteries to everyone remaining in the queue. Castonguay rebuttal pf. at 4.
60. GMP is on track to complete installation of the full 2,000 units by summer 2019. Castonguay rebuttal pf. at 4.
61. The program's benefits—including revenues from participating customers and avoided power supply and transmission costs—are projected to exceed the cost of the program. Castonguay pf. at 9; Castonguay rebuttal pf. at 6.

62. Once fully installed, the program will create nearly 10MWs of storage capacity and is anticipated to save non-participating customers approximately \$2 million over the life of the program. Castonguay pf. at 9; *see also* Exh. GMP-BO-8 (electronic copy of Tesla Powerwall capital folder and supporting financial analysis).
63. These financial benefits for customers are derived from a combination of GMP utilizing the batteries for power supply cost reductions as well as collecting a payment from the participating customer. Castonguay rebuttal pf. at 5.
64. The power supply cost reductions are derived mainly from the dispatching of batteries during peak power usage times which ultimately lowers GMP's Regional Network Service ("RNS") and Forward Capacity Market ("FCM") costs. Castonguay rebuttal pf. at 5.
65. In addition to the FCM and RNS cost reductions, GMP is also able to create some value through energy arbitrage—or discharging the batteries when market prices are high, such as during peak times, and recharging them when the energy market prices are lower. Castonguay rebuttal pf. at 5.
66. The batteries also provide GMP with a tool to manage voltage and reactive power or "VARS" on the distribution system. Although GMP has not yet attempted to monetize this value for customers, having this capability in a distributed fashion across the entire system provides GMP with tremendous flexibility on managing and maintaining a stable and reliable grid in the face of changing and flexible loads, intermittent distributed generation, and strategic electrification. Castonguay rebuttal pf. at 5-6.
67. The main benefit to the host customer is improved reliability using a clean energy system. In cases where the host is forgoing the use of a fossil fuel generator there's the

added benefit of lower carbon emissions. Unlike a backup generator, the battery system has no exhaust emissions, no noise, requires no refueling, requires no regular maintenance, and is in general much more responsive in an outage event than a traditional generator. This host benefit is important because it is the aspect of the program that encourages so many people to participate, thereby allowing GMP to generate the broader net benefits for all of its other customers. Castonguay rebuttal pf. at 6.

68. GMP utilizes Tesla's software control platform, called GridLogic, to continuously monitor and dispatch the fleet of Powerwall batteries across the entire system. Castonguay rebuttal pf. at 7.
69. A team at GMP regularly watches and predicts when peak loads will occur, using a set of analytical tools to help narrow in which hours the peak loads will occur. Castonguay rebuttal pf. at 7.
70. GMP is able to schedule the battery resources through a grid control software platform in anticipation of the peak event. As the peak period approaches GMP has real-time control to make adjustments as necessary to maximize the peak benefit. GMP also notifies host customers automatically via e-mail in advance of each peak event. Castonguay rebuttal pf. at 7.
71. GMP will use an automated dispatch algorithm to monitor loads and control and dispatch the batteries to hit peaks. 10/25/18 Tr. at 81 (Castonguay).
72. FCM savings for GMP customers are generated by dispatching the battery during the single ISO New England peak hour each year. Because FCM obligations are calculated to include a reserve margin, every 1MW of load reduction GMP is able to achieve

- through discharge of the batteries actually reduces GMP's FCM obligations by up to 1.5MW. Castonguay rebuttal pf. at 8-9.
73. Although GMP's capacity obligations are set based on the single highest peak hour during the year, to assure that they are able to hit the FCM peak, GMP constantly monitors forecast loads for New England and dispatches its load management tools whenever the forecasts project a potential ISO New England peak. Castonguay rebuttal pf. at 9.
74. RNS rates are calculated based on each month's peak Network Load. As with FCM, GMP discharges batteries during predicted monthly peak periods to lower these monthly peaks and thereby lower the amount GMP customers must pay for RNS. Castonguay rebuttal pf. at 9-10.
75. GMP leverages the Powerwalls to provide value back to customers as soon as they go into service and the Powerwall program is already providing benefits to GMP customers. Castonguay rebuttal pf. at 10.
76. During the summer of 2018 the units were successfully deployed for all potential summer FCM peaks. GMP has successfully hit 7 potential predicted ISO peak hours this summer, including the year-to-date ISO FCM peak that occurred on August 29th. Castonguay rebuttal pf. at 10.
77. During the August 29, 2018 event the Powerwalls alone were able to reduce GMP's peak load by 3 MWs. This is much higher than the earlier FCM potential peaks in the summer of 2018 due to the fact that Powerwalls continue to be deployed and added to the software platform. Castonguay rebuttal pf. at 11.

78. If August 29, 2018 remains as the New England peak day, the Powerwalls will provide almost \$370,000 in peak cost savings in the next capacity year that start in June of 2019. Castonguay rebuttal pf. at 12.
79. In addition to the FCM peak, the batteries already in service have been used to lower GMP's share of monthly RNS peaks. Specifically, the Powerwalls have reduced RNS costs by approximately \$45,000 since January of 2018. In contrast to the FCM benefit, these RNS savings benefit customers in the month the load reduction occurs. As the rollout of Powerwalls continues, the value from RNS peak shaving will increase. Castonguay rebuttal pf. at 12.
80. Although the Powerwall program is already producing benefits for customers, the capital costs associated with the Program have not yet been included in rate base. The program started in 2017, but GMP did not seek rate recovery in the first year to assure that the units were deployed as expected and were providing the anticipated value. Castonguay rebuttal pf. at 12.
81. The data from first year of the program demonstrates that the Powerwalls can be effectively controlled to produce the anticipated benefits for all non-participating customers. Castonguay rebuttal pf. at 10-13, 18.
82. The Department supports GMP's innovative programs but believes recovery for program costs should be deferred until a future period. McNamara pf. at 4.
83. DPS acknowledges that GMP's financial analysis demonstrates that the Project will provide a net present benefit to GMP customers. Winn surrebuttal pf. at 14. The Department also acknowledges that the Powerwalls are already providing benefits to

GMP customers in 2018 and will provide those benefits to customers in 2019 if the Program remains in rates. 10/25/18 Tr. at 212 (Winn).

84. The Department's proposal to delay rate recovery on the Tesla program would require removing not only the capital costs associated with this program, but also the power supply and revenue benefits that would otherwise accrue to customers if the program was included in rates. Thomas supp. pf. at 4 (updating DPS COS position to remove Tesla power supply benefits).
85. The Department's position is based on two concerns related to modeling for the Tesla Powerwall Program. First, Mr. Dawson, the Department's expert, questioned whether the modeled value will materialize because he claims GMP's financial model did not adequately consider the potential degradation of the batteries' capacity over the life of the program. Dawson pf. at 41. GMP disagrees with this assessment. Castonguay rebuttal pf. at 14-16; 10/25/18 Tr. at 81-86 (Castonguay).
86. The GMP/Tesla model did include assumptions regarding battery degradation and GMP's analysis of the ability to provide the anticipated peak load reduction benefits takes this information into account. Castonguay rebuttal pf. at 14.
87. To consider the impact of degradation, GMP and Tesla collaborated on an hourly dispatch model, relying on data from three years of actual ISO-NE peak information, and simulated the dispatch of batteries against this historical data, assuming a 3% annual degradation factor over 15 years. This detailed modeling exercise determined that even taking degradation into account, the automated battery dispatch algorithm that will be used to control the batteries could still hit 100% of the FCM peaks and 99-98% of the

- RNS peaks, with a slight reduction in the ability to hit RNS peaks over time. 10/25/18 Tr. at 81-82 (Castonguay).
88. This detailed analysis was used to develop the “peak effectiveness” factor in the GMP/Tesla model. That factor was then further de-rated by two other performance factors—the ability to forecast peaks accurately, and the communication availability of the batteries. 10/25/18 Tr. at 81-86 (Castonguay).
89. These three factors together produce an overall de-rate factor of 72% for FCM peaks and 62% for RNS peaks. Castonguay rebuttal pf. at 15. These factors represent a “levelized” expectation of performance over the program life. 10/25/18 Tr. at 86 (Castonguay). Actual performance of the ability to hit peaks has been significantly higher in the first year (100% observed performance in 2018 compared to 72% model assumption for FCM), and therefore the modeling is conservative. Castonguay rebuttal pf. at 15; 10/25/18 Tr. at 85-86 (Castonguay).
90. Mr. Dawson acknowledged while testifying that he did not understand how the degradation factor was incorporated into the hourly dispatch modeling when he prepared his testimony critiquing the model. 10/25/18 Tr. at 155 (Dawson).
91. Mr. Dawson acknowledged that the hourly dispatch modeling used by GMP and Tesla was a sophisticated approach to analyzing the impact of degradation. 10/25/18 Tr. at 156-157 (Dawson). He also acknowledged that his analysis of the issue was more simplistic and was not informed by the same type of hourly dispatch modeling. 10/25/18 Tr. at 157 (Dawson).
92. Mr. Dawson admitted that he is not an expert in battery degradation and has no reason to know if the 3% degradation factor is conservative or not. 10/25/18 Tr. at 153 (Dawson).

93. Even if degradation were to occur at a rate faster than the rate assumed by the model, GMP has executed a performance guarantee with Tesla which guarantees peak load reduction performance for the batteries over ten years. 10/25/18 Tr. at 71 (Castonguay); *see also* Exh. GMP-Cross-CCD-25 (Tesla Peak Reduction Performance Guarantee).
94. Underperformance on the anticipated peak load reduction will be compensated by Tesla under the guarantee, up to \$3 million over the life of the project. Exh. GMP-Cross-CCD-25 (Tesla Peak Reduction Performance Guarantee).
95. Tesla guarantees that the Powerwalls will have 70 percent of their capacity remaining after ten years, which is based on an assumption that the batteries are used 300 times per year. GMP anticipates only needing to cycle the batteries 50 or 60 times per year. 10/25/18 Tr. at 92 (Castonguay). The rate of degradation depends on how many times you use the batteries. *Id.*; 10/25/18 Tr. at 159 (Dawson).
96. Mr. Dawson also acknowledged while testifying that he did not have any concerns with the other performance factors included in the model—namely assumptions regarding peak forecast accuracy and the communication availability factors. 10/25/18 Tr. at 155-156 (Dawson).
97. The Department's second concern relates to the anticipated value of FCM and RNS savings over the life of the Powerwall program. Dawson pf. at 39-40.
98. DPS did not offer specific counter evidence to demonstrate what FCM or RNS rates were likely to be over the life of the program, but rather opined that actual rates may turn out to be different from GMP's forecasts. 10/25/18 Tr. at 163 (Dawson); Dawson pf. at 26-27, 28-29.

99. GMP witness Douglas Smith explained that GMP's market outlooks were developed using the same approach that has been used for evaluating other potential generation projects and PPAs in the past several years. GMP also presented detail on its market outlooks in the context of Docket No. 8684 (relating to PURPA avoided costs), and the same methods supported GMP's December 2016 Rule 4.100 avoided cost filing. Smith rebuttal pf. at 13.
100. As in these other cases, GMP's avoided cost forecasts are based on an internally developed market outlook that is built on a review of regional wholesale market conditions and anticipated market price drivers for each of the key products (i.e., energy, capacity, and renewable energy certificates or RECs). Smith rebuttal pf. at 13.
101. GMP's outlooks are informed by market price forecasts and related publications from consultants who focus on the New England markets for energy, capacity, and RECs. GMP also obtains additional insights by interviewing the experts who developed these forecasts, with respect to the market drivers and key assumptions that are used to develop their outlooks. Smith rebuttal pf. at 13-14.
102. Analysis is also performed with respect to transmission expenses (Regional Network Service) and—in the context of battery storage—frequency regulation service. The trends in GMP's market outlooks for these products (or expenses) over time are intended to reflect the influences of appropriate market drivers (e.g., trends in regional supply/demand, cost of entry/exit, general inflation) that affect those products. Smith rebuttal pf. at 14.
103. Mr. Dawson does not present a detailed critique of each value stream or an alternative set of recommended market views. Smith rebuttal pf. at 15.

104. Mr. Dawson did not provide his own estimate on what FCM or RNS rates would likely be during the period of time, and neither Mr. Dawson nor his firm have ever developed forecasts for FCM or RNS rates in ISO-NE. 10/25/18 Tr. at 162-163 (Dawson).
105. With respect to FCM rates, Mr. Dawson acknowledged that these rates are already largely set for the next three years (through 2021). 10/25/18 Tr. at 166 (Dawson).
106. With respect to RNS rates, GMP's base case reflects a recent ISO-NE projection for the first five years, followed by an escalation rate of 3.25% per year. Smith rebuttal pf. at 22.
107. The 3.25%/year trend line used by GMP is slower than the historical growth trend for RNS rates since 2000 (over 10% CAGR) and also slower than the growth rate over the past five years. Smith rebuttal pf. at 22.
108. Mr. Dawson confirmed while testifying that RNS rates are likely to increase over the ten-year term of the Powerwall program. Tr. at 166 (Dawson). He does not dispute the use of the ISO-NE projection over the first five years but recommends that a more modest inflation-based rate of growth should be used for the out-years in the model. Dawson pf. at 29.
109. Mr. Dawson's also suggests that GMP should have conducted a sensitivity analysis of the anticipated capacity and transmission benefits associated with the project, in order to evaluate the potential impact of changes in these assumptions on the overall benefit of the program. Dawson surrebuttal pf. at 11-12.
110. Because of the limited scale, the nature of the benefits, and term of the Powerwall program (particularly considering that the program's output will act as a hedge by offsetting far larger capacity and transmission costs), Mr. Smith did not believe a detailed sensitivity analysis was warranted in this case. 10/25/18 Tr. at 117 (Smith). Mr. Smith

noted that RNS rates are not particularly volatile and capacity rates are largely established for the first several years of the Powerwall program. *Id.* at 116-117 (Smith). Mr. Smith did a simple analysis when preparing for hearing by adjusting FCM and RNS rates which illustrated that the model was not very sensitive to these changes. *Id.* at 120-122 (Smith)

111. Mr. Dawson acknowledged while testifying that using a 2.0% rate of growth for RNS, consistent with this recommendation, instead of the 3.25% used by GMP was not likely to have a material impact on the overall benefits of the Program. 10/25/18 Tr. at 167 (Dawson).
112. From the perspective of a power supply investment, the Powerwall program offers a set of benefits that is estimated to be greater than the cost of the resource. That is not common in the power market— more often with an alternative hedging tool like a PPA you are looking at a break-even equation. 10/25/18 Tr. at 122 (Smith).
113. GMP did consider the cost of alternatives to the Tesla Powerwall program, including three other potential residential battery options. *See* Exh. GMP-BO-8 (Tesla Capital Folder)
114. With respect to other demand response and load management resources, GMP has followed a strategy of looking at all potential demand resources and constructing a portfolio that delivers the highest likelihood of success through a blended model of controllable resources, rate structures, behavioral responses, and other methodologies to deliver power cost savings while meeting customer demand. Castonguay rebuttal pf. at 19-20.

115. This suite of options includes rates design for critical peak pricing, other pilot programs, and utility scale programs such as the JV Solar/Storage projects. Castonguay rebuttal pf. at 20-24.
116. By developing a portfolio of programs GMP is able to achieve benefits for customers throughout the year, with programs such as Powerwalls and eWater controls providing a benefit during the summer months when there are limited Curtailable Load Rider benefits. Castonguay rebuttal pf. at 23.
117. Each option has a unique cost structure but by creating a portfolio of different programs GMP is able to provide customers with a choice of options that will work for them as there is no such thing as a one size fits all approach to energy transformation resources. Castonguay rebuttal pf. at 23-24.
118. Department witness Mr. Winn stated that he supported a delay in permitting the Tesla units into rate base in order to allow more time to review GMP's ability to hit peaks with the Powerwalls. Tr. at 210 (Winn). But the Department's expert, Mr. Dawson, stated that he had no concerns with GMP's levelized modeling assumptions regarding peak forecast accuracy. 10/25/18 Tr. at 156 (Dawson).
119. Mr. Winn also stated that he believed a delay would provide more information on anticipated market prices for FCM and RNS rates. 10/25/18 Tr. at 210 (Winn). Mr. Dawson acknowledged, however, that FCM rates for the next three years are already set, and that RNS rates will increase over the next ten years. Tr. at 166 (Dawson). He also testified that using his proposed rate of inflation for increases in RNS rates likely would not have a material impact on the model compared to GMP's assumptions. 10/25/18 Tr. at 167 (Dawson).

120. Mr. Winn also acknowledged that there is a risk that customers could be paying higher capacity and transmission costs in the future and would miss out on the power supply and revenue benefits associated with the peak shaving benefits of the program if it is not included in rates. 10/25/18 Tr. at 209 (Winn).

Discussion – Tesla Powerwall 2.0 Program

GMP has provided compelling evidence that the Tesla Powerwall 2.0 Program should be included in 2019 rates. This will allow benefits from the program to begin flowing immediately to all GMP customers. The spending on the program is known and measurable. GMP has already commenced installation of the Powerwalls, and the program has proved to be very popular with customers. The uncontroverted evidence shows that the 2,000 Powerwalls will be installed before the end of the rate period.

The program will also provide benefits to GMP customers in the rate period. GMP has successfully dispatched the fleet of installed Powerwalls over the past year during peak periods and has demonstrated that the program can provide tangible benefits for customers, in the form of both reduced power supply costs and increased revenue associated with the monthly or one-time payments from participating customers. These benefits are not hypothetical – they are already accruing to customers now. The program has reduced GMP's RNS costs in 2018, and the savings associated with the discharge of the batteries during the ISO-NE peak day on August 29, 2018 will provide customers savings through reduced capacity charges in the 2019 rate period.

And while the program is already producing benefits, the costs associated with those benefits have not yet been included in rates. GMP has been investing capital in this program

over the past year, since the pilot was filed with the PUC in July of 2017 but did not include the program in 2018 rates. GMP delayed including the program in rates so that it could test the system and confirm its ability to discharge batteries in a coordinated manner to reduce GMP's load during peak periods, thereby providing the types of power supply benefits anticipated in GMP's modeling for the Program. GMP has shown that it can successfully deliver these benefits, and as more Powerwalls are installed through 2019, the scale of these benefits will increase.

Based on this evidence, we believe it is appropriate to include the costs associated with this program in rates in 2019, so that these benefits continue to flow to customers.

DPS has raised several concerns with the Program, but we do not believe those concerns justify further delay in including the program in rates and returning the program's benefits to customers.

First, the Department questioned whether the model appropriately accounts for battery degradation, but the Department's expert acknowledged on the stand that he did not fully understand how degradation was considered in the model when he prepared his testimony. GMP demonstrated how the model takes this issue into account and showed how the assumptions on degradation are conservative compared to the likely use case for these batteries, which will require far fewer cycles than the Tesla assumptions of degradation are based on. The concern raised regarding degradation, therefore, does not provide a basis to delay including the program in rates. This is particularly true because GMP has taken the further reasonable step to protect against potential underperformance through the guarantee it has obtained from Tesla.

Second, the Department also suggested that capacity and RNS prices may turn out to be lower than are presently modeled in GMP's financial analysis. The Department expressed the

opinion that GMP should have conducted a sensitivity analysis to determine whether changes in the long-term value of avoided RNS and capacity costs would undermine the anticipated benefits of the program.

GMP reasonably addressed each of these concerns. GMP explained that it used the same basic methodology for analyzing the benefits of this project that it uses for other potential projects or transactions, such as capacity PPAs. GMP's avoided cost forecasts are based on the same internally developed market outlooks used in other situations, which are built on a review of regional wholesale market conditions and anticipated market price drivers for each of the key products (i.e., energy, capacity, and renewable energy certificates or RECs). The evidence also shows that the primary source of power supply benefits – RNS savings – is not very volatile from a price perspective, and even the Department's witness acknowledges that the price for this transmission obligation will likely continue to increase during the term of the Program. He also acknowledged that the change he proposed would be reasonable for RNS assumptions (2.0% annual growth instead of the 3.25% growth GMP used) would not have a material impact on the anticipated benefits. The Department's witness also acknowledged that the other primary source of power supply benefits, capacity prices, have already been essentially locked for the first several years of the program. DPS did not provide evidence indicating what FCM prices would likely be beyond those first several years to contest GMP's market outlook, but rather simply suggested that the uncertainty should be evaluated through a more detailed sensitivity analysis. GMP considered the need for a sensitivity analysis but did not believe one was needed here given the relatively small scale and short duration of the program, and the role of its output as a hedge against far larger capacity and transmission costs.

We recognize that there will always be some uncertainty over whether a particular utility decision will ultimately provide the exact level of benefits that were anticipated at the time the utility makes a decision to proceed with the project or program or investment. Uncertainty alone does not mean that a particular program should not be pursued, and while an individual investment may underperform initial expectations, it may also out-perform those expectations, and provide greater than expected benefits to customers. This type of uncertainty exists with every individual utility decision, and we look to utilities to manage this type of risk on behalf of customers on a portfolio basis, making informed decisions about the suite of investments which collectively will produce the greatest benefit for customers.

As GMP notes, the proposed Powerwall program is part of a range of demand response resources that GMP is pursuing to manage customer's capacity and transmission charges, which are outside of GMP's control. In evaluating options for providing these types of services, GMP considered a range of alternatives, specifically looking at other residential batter storage options, which were more expensive. GMP also considered other demand resources and load management mechanisms, including curtailable critical peak riders, other pilots, and other utility-scale battery storage programs. GMP is pursuing many of these resources as a portfolio, as each has unique benefits and draw backs. The Tesla Powerwall program represents a particularly good option in GMP's view because it provides a flexible, year-round resource that other demand resources cannot provide at a meaningful scale that can reduce GMP's capacity obligations it must meet on behalf of customers. It also offers unique benefits to the host customers, in the form of improved reliability, which other programs cannot provide. These benefits encourage customers to participate as hosts, which generates revenues in the form of customer payments, and also provides the mechanism through which GMP can develop a

distributed, but controlled system of batteries that can be leveraged to benefit all non-participating customers. The fact that this particular program is anticipated to provide a net benefit for customers over its lifetime is unique from other methods GMP could pursue for meeting its capacity obligations, such as simply purchasing PPAs for capacity obligations, because those resources are typically priced in the market such that they appear breakeven from a net present benefit perspective when purchased.

GMP has explained that it is pursuing a range of innovative energy transformation projects like the Tesla Powerwall Program to provide new, low-carbon, distributed energy technology that support Vermont's energy policy, reduce power costs, introduce new revenue streams to benefit customers, and to offer new energy products and services that enhance GMP's customer experience. These programs are consistent with GMP's innovation pilot program under its current Regulation Plan, which is designed to encourage development of new innovative offerings. *See* 2018 Interim Regulation Plan (approved 11/29/17) ("2018 Regulation Plan") at Attachment 1. Indeed, this is a specific requirement of the statutory program under which regulation plans are authorized in Vermont, which call for regulation plans to "offer incentives for innovation and improved performance that advance state energy policy" and "encourage innovation in the provision of electric service." 30 V.S.A. §218d(4)&(6).

GMP's innovative pilot program does not guarantee recovery for these types of innovative programs, but it does specifically contemplate that the Commission may approve rate recovery for these programs. 2018 Regulation Plan at Attachment 1 (noting that "[a]ny rate filing in which GMP seeks to reflect the costs and revenues of Innovative Pilots shall include a schedule setting forth the costs and revenues of all Innovative Pilots offered and shall be subject to Department review and Commission approval."). When there is sufficient evidence to demonstrate

that these types of new innovative programs will benefit all of GMP's customers, as there is here, we believe it is appropriate to include the costs of such pilot programs in rates. GMP waited to demonstrate the efficacy of the program before seeking rate recovery, and the evidence shows that the program is likely to provide a net financial benefit for all non-participating customers over its life. This is not a standard all innovative pilots will meet, but where they do, we believe we should encourage, not discourage, this type of investment on behalf of customers by treating it in a manner similar to other utility investments and including associated costs in rate base.

iii. T&D Projects

121. As part of its initial April 13, 2018 filing, GMP proposed to invest approximately \$33.6 million during the 2019 rate period in transmission and distribution ("T&D") projects to continue providing safe and reliable service for customers. Fiske pf. at 11.
122. As required for a traditional rate case, GMP's initial filing also documented spending during the "interim period," which for the 2019 Rate Case included all spending from October 2017 to December 2018. Fiske pf. at 11.
123. Because of the timing of the 2019 Rate Case, the interim period for this case overlaps with and includes spending in the 2018 calendar year, which was already approved in last year's traditional rate case, Case No. 17-3112-TF.
124. GMP's proposed T&D spending includes both individual T&D projects and blanket work orders. Fiske pf. at 10-11. Each of these categories is addressed separately below.
125. In this case GMP used the same basic methodology to develop and document individual T&D projects and develop anticipated T&D blanket spending as was used in the 2018 Rate case, with two exceptions. Fiske pf. at 11-12.

126. First, unlike in the 2018 Rate Case, the 2019 Rate Case relies on a forecast of anticipated load requirements and revenue during the rate period, including new revenue associated with anticipated new customers, often described as “growth.” Because of this change in methodology, GMP did not exclude “growth related” T&D projects from the interim or rate periods, as was done in the 2018 Rate Case. Fiske pf. at 12.
127. Second, Consistent with the MOU reached in Case No. 17-3112-TF, GMP developed individual capital folders for all T&D projects above \$250,000, which previously would have been included in the T&D blanket work orders. Fiske pf. at 10. As a result of this change 36 additional individual distribution line projects have now been broken out and documented as individual T&D projects, reducing the overall amount of spending that is handled through blankets. Fiske pf. at 22; Fiske rebuttal pf. at 27.

a. Individual T&D Projects

128. GMP's April 13, 2018 filing documented the need for individual capital projects in several T&D categories, including Distribution Substations, Transmission Lines, Transmission Substations, and Distribution Lines. Fiske pf. at 11.
129. The Department, through Mr. Mara, proposed several adjustments to individual T&D projects, originally totaling approximately \$6M (including both rate period and interim period projects). *See* Exh. PSD-KJM-4 (recommending \$1.48M adjustment to transmission line projects) and Exh. PSD-KJM-5 (recommending \$4.6M adjustment to distribution line projects); *see also*, Fiske rebuttal pf. at 5 (summarizing Mara adjustments).

130. In response, GMP adopted several of the Department's proposed adjustments in rebuttal testimony and removed one project that was no longer anticipated to be completed in the rate period. These adjustments reduced GMP's anticipated individual T&D capital investments by approximately \$1.4 million. Fiske rebuttal pf. at 5 (summarizing GMP adjustments).
131. In its surrebuttal testimony, the Department agreed with GMP's proposed adjustments and agreed to drop its concern related to one project after reviewing GMP's rebuttal testimony but maintained its position on other adjustments. Mara surrebuttal pf. at 1-2 (removing objection to Ottauquechee direct transfer trip project) and 4 (accepting GMP's adjustments for flagging estimate concerns).
132. In supplemental testimony filed October 23, 2018 the Department subsequently revised its position and to be consistent with the resolution of the 2018 case, removed any adjustments for individual T&D projects previously approved as part of the 2018 Rate Case. Thomas supp. pf. at 5 (10/23/18).
133. Following these agreed-upon adjustments, the Department's remaining unresolved comments on individual T&D projects concern two transmission line projects and one distribution line project. *See* Thomas supp. pf. at 5-6 (10/23/18); 10/25/18 Tr. at 172-73; 176-77 (Mara).
134. With respect to GMP's proposed transmission line projects, the Department recommends deferral of capital investments related to the installation of motor operated air break (MOAB) switches at a two GMP substations – Newbury (Project #159729) and Castleton (Project #159730). *See* Mara pf. at 17; Thomas supp. pf. at 6 (10/23/18).

135. The MOABs are intended to replace gang operated air breaks, which must be operated manually by field crews. The proposed MOAB switches can be remotely controlled by GMP's SCADA network and provide a greater measure of reliability for GMP's customers and a greater safety for GMP's line crews. Fiske rebuttal pf. at 3, 6; 10/25/18 Tr. at 139-140 (Fiske).
136. GMP has been programmatically upgrading these types of switches because of the benefits they provide customers as an operational tool, and GMP relies on its system operators to help identify the switches that will provide the greatest benefit to upgrade to MOABs. 10/25/18 Tr. at 142 (Fiske).
137. When outages are experienced at substations they can affect large numbers of customers—sometimes entire towns can be without power; the proposed Projects will reduce outage durations when these types of faults occur. 10/25/18 Tr. at 141 (Fiske).
138. The justification for these MOAB projects was specifically outlined in the capital folders for each project, consistent with Exhibit 2 of the GMP/DPS MOU in Case No. 17-3112-TF. Fiske pf. at 8 (describing capital folder documentation for similar MOAB project). Relevant descriptions for the Newbury and Castleton projects are included in their respective capital folders.
139. The need for Castleton MOAB project was described as follows:
- This project is part of an ongoing reliability improvement initiative with like in kind replacement of manually operated air break switches at critical sectionalizing points on the GMP subtransmission system with SCADA-controlled motor-operated load break switches. Motorizing these switches will significantly improve the operability and reliability of the system by facilitating remote fault isolation and sectionalization of the subtransmission system for disturbances and faults. Motorizing these switches increases worker safety by eliminating the need for workers to

access the switch location and manually operate the switch.

Presently, an outage to the Castleton substation results in the loss of one distribution circuits (G37). There are no feeder backup ties that can carry this circuit for all times of the year. This impacts over 930 customers in a number of towns, including a University campus. This project will improve reliability for the customers on these circuits.

The Newbury project capital folder provides a similar description of the need for that Project.⁸

140. DPS does not recommend a disallowance of these projects, but rather recommends deferring the costs associated with these projects until the next rate period to balance the increase in reliability spending across several years. Mara pf. at 16-17.
141. GMP does not anticipate another traditional rate case until 2022 after the end of its proposed multi-year regulation plan. As a result, deferral of these MOAB projects would either delay the projects and their benefits for customers for three years, displace other already planned spending in the MYRP period, or defer recovery of this expenditure, if GMP proceeds with the work, for more than three years. Fiske rebuttal pf. at 8-9.
142. The Department also recommends a disallowance of a portion of the cost for one distribution line, Project #153588, the rebuild of Section I of Line 74, which is intended to provide greater reliability to customers on that line. Thomas supp. pf. at 5 (10/23/18).

⁸ The capital folders for the Castleton and Newbury MOAB projects were provided to DPS at the beginning of this case but have not been moved into the record. In the event the Commission determines that review of these folders would be beneficial, they have been provided to the Commission in electronic format with this filing. GMP has consulted with the parties on this issue and no party objects to including these folders in the record.

143. Mr. Mara disputes the use of 336 tree wire on the single-phase portion of Line 74 and suggests that GMP should have used 1/0 tree-wire instead, estimating a savings of approximately \$13,871. Mara pf. at 26.
144. GMP specifically considered the type of wire to use in its financial analysis for this project, and determined that covered 336 tree wire was justified in this circumstance, as summarized in Exh. GMP-JRF-3:

[this] Project is located off the Hewitt Road G38 circuit and will address aging infrastructure and improve reliability by moving line to road. Mr. Mara testified line rebuild should have used 1/0 wire rather than 336 tree wire. As explained in the financial analysis, adding 336—covered wire—and bringing poles to the road will significantly improve the reliability of this line. This circuit/line is on GMP's worst circuits list and serves a very rural area prone to major weather events. The project is an effort to storm-harden the entire Line 7 in conjunction with other projects in various stages on this circuit, and use of 336 rather than 1/0 wire is necessary to accomplish this goal. With these efforts, GMP can achieve greater reliability to the Lincoln and Starksboro area. There are many benefits associated with a larger conductor such as improved fault current and voltage drop. The project also has the potential for a future feeder backup for which the larger 336 conductor would be necessary.

145. The description in the capital folder for this project further explained the reliability benefits of the project:

This project will significantly improve reliability to the Lincoln-Ripton area by reducing the frequency and duration of outages on this line. Every time there is an outage on this line, up to 192 customers may be affected. In the past 4 years, we have seen 9 outages causing 68,131 customer hours out, a very high average. Upon completion of this project, we expect that the frequency and duration of outages will be significantly reduced for customers.⁹

⁹ The capital folder for Project #153588, the rebuild of Section I of Line 74, was provided to DPS at the beginning of this case but has not been admitted to the record here. The folder has been provided to the Commission in electronic format in the event the Commission determines that review of the folder would be beneficial. GMP has consulted with the parties on this issue and no party objects to including this folder in the record.

b. T&D Blankets

146. GMP also proposed spending in several T&D blankets. Blankets are used to cover costs for smaller, necessary T&D projects where the anticipated level and need for the spending is known based on historical experience, but the exact location of work or the individual projects that will be required cannot always be known in advance. Fiske pf. at 19.
147. GMP uses four blanket categories for T&D projects: 1) Distribution Equipment Purchases, 2) Distribution Lines, 3) Distribution Substations, and 4) Transmission Lines and Substations. The Distribution Equipment Purchases blanket includes three equipment purchase blanket work order (WOs) for the purchase of transformers (WO36), meters (WO38), and regulators and capacitors (WO37). These capital purchases permit the installation of new or replacement of deteriorated, obsolete, or failed equipment on the system. Fiske pf. at 20.
148. Consistent with prior PUC precedent, cost estimates for T&D blankets are established by reviewing historical spending in each of the functional blanket work order categories. Fiske pf. at 21.
149. Historical averages are used to develop blanket budgets because spending can fluctuate from year to year based on varying system needs, equipment failures, lead times, and customer requests. Use of a five-year average addresses these spending fluctuations and smooths out the impact in any given year. Fiske rebuttal pf. at 26.
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150. The five-year average is then compared to the actual budgeted number for each blanket. In the event the budgeted number is lower, GMP includes the lesser amount in the rate filing which results in a high probability that these dollars will be spent. Fiske rebuttal pf. at 26.
151. The Department and GMP reached a settlement to resolve issues raised in the 2018 Rate Case, including issues related to the blanket work orders for that rate period. Fiske pf. at 22; Fiske rebuttal pf. at 24.
152. As part of this agreement, DPS and GMP signed an MOU which was intended to apply in future rate cases, including this case. That Agreement contemplated the continued use of blankets when it specified that projects greater than \$250,000 should be “removed from blanket work orders.” Fiske rebuttal pf. at 25¹⁰.
153. Consistent with the requirements of the MOU, GMP removed projects above \$250,000 from the blanket work orders, but otherwise relied upon the same five-year historical average methodology for the remaining blanket spending. Fiske rebuttal pf. at 24.
154. When determining the five-year average for the Distribution Lines blanket for the 2019 rate period, GMP accounted for the removal of projects above \$250,000 from the blanket by comparing prior year blanket spending on large and small distribution line projects and developing a ratio to establish the appropriate level of spending on small distribution projects. *See* Mara pf. at 41.

¹⁰ Mr. Fiske's rebuttal testimony incorrectly cited Exhibit-GMP-BO-2 for reference to the 2018 MOU. Exhibit-BO-2 only includes Exhibit 2 to the 2018 MOU, which outlines the capital documentation standards. The full MOU was filed by the parties on Nov. 9, 2017 in Case No. 17-3112-INV.

155. Mr. Mara has raised concerns with the use of blankets but acknowledges that blanket work orders have historically been allowed by the Commission in past rate cases as known and measurable costs. Mara pf. at 43. Mr. Winn also recognizes that the Commission has traditionally allowed GMP to use blankets in traditional rate cases. Winn pf. at 16.
156. As a result of the 2018 MOU and the PUC's order in the 2018 Rate Case, DPS agrees that it would not be appropriate to adjust blanket spending occurring in the 2018 rate period as part of this case. Mara pf. at 44.
157. Mr. Mara revised his final recommendation on blanket spending to remove any amounts associated with 2018 spending. His remaining adjustments relate to three 2019 T&D Blankets—the Regulator & Capacitor Blanket Work Order, the Transformer Blanket Work Order, and the Distribution Line Blanket. 10/25/18 Tr. at 179 (Mara); Exh. DPS-KJM-10 (Rev. 11/09/18).
158. With respect to the Regulator & Capacitor blanket work order, Mr. Mara recommends an adjustment of \$253,954. With respect to the Transformer blanket work order, Mr. Mara recommends an adjustment of \$665,495. With respect to the Distribution Line blanket, Mr. Mara recommends an adjustment of \$8,199,387. Exh. DPS-KJM-10 (Rev. 11/09/18).
159. Mr. Mara's proposed adjustment to these three blankets is based on a methodology not previously accepted by PUC. Rather than using the historical five-year average methodology the PUC has consistently relied on for blanket spending, Mr. Mara instead selectively revised the blanket budgets based on his individual judgement of the types of

- projects that might occur during the rate period. 10/25/18 Tr. at 179-181 (Mara); Mara pf. at 47-48.
160. With respect to the regulator and capacitor blanket work order, Mr. Mara acknowledges that the cost of new equipment to serve new customers should be included in a forecasted rate base, including new capacitors to correct power factor for the additional loads, and new voltage regulators for the increased load. He also acknowledges that costs associated with replacement of failed equipment should be included. Mara pf. at 45.
161. Mr. Mara's adjustment to this blanket is based on his estimate of the anticipated regulators and capacitors needed to serve new customers, as well as his expectation of equipment needed to replace failed components, but he did not explain how he developed this specific estimate. Mara pf. at 48.
162. Mr. Mara's calculations for regulator and capacitor costs in the rate period do not include necessary categories of spending that are included in GMP's historical five-year averages for this blanket. For example, he assumes that no regulators or capacitors will be needed for feeder backup, circuit reconfiguration, or power quality complaints, which is not reasonable. Fiske rebuttal pf. at 28.
163. Regardless of load increases on the distribution system, regulators and capacitors are not discretionary purchases. They provide necessary voltage support to ensure proper system operation, feeder backup, circuit reconfigurations, power quality, and asset maintenance. The dollars proposed in this blanket are necessary to cost-effectively ensure adequate system voltages and system operation. Fiske rebuttal pf. at 28.
164. With respect to the Transformer Blanket Work Order, Mr. Mara prepared an estimate of the number of transformers he believes would be needed for new services in 2019, but

again did not explain the specific rationale for the number he included in his estimate.

Mara pf. at 47.

165. Mr. Mara's adjustment to the transformer blanket made several assumptions (e.g., the number of three-phase units, single-phase units, failed transformers, etc.) that in actuality will differ from year to year. GMP's methodology uses actual historical spending to address this variation. Fiske rebuttal pf. at 29.
166. The interim and rate year transformer blanket dollars requested in this filing are less than the five-year average of actual dollars spent and also less than the 2015, 2016, and 2017 actual historical dollars spent. Fiske rebuttal pf. at 29.
167. Transformers are fundamental electric infrastructure components that must be acquired for customer service and reliability, and their purchase is not discretionary. GMP's proposed transformer blanket interim and rate year dollars represent a reasonable spending level with a high probability of occurring. Fiske rebuttal pf. at 29.
168. Mr. Mara arrived at his proposed adjustments to the Distribution Line Blanket by excluding certain categories of projects that have traditionally been covered by blanket work orders. For example, he excluded all reliability upgrades, all road relocation projects requested by state or municipal agencies, and all distribution automation projects. Mara pf. at 46.
169. With respect to these categories of work, Mr. Mara recommends that GMP break these projects out of the blanket into individual capital projects, even if the spending is under \$250,000. He recognizes, however, that this position is inconsistent with the express requirements of the MOU GMP and DPS, which only requires projects *above* \$250,000 be removed from the blanket. Mara pf. at 46.

170. Mr. Mara's recommended adjustments would substantially reduce the distribution line blanket in the rate period, from \$12.8M to approximately \$4.6M, a 63% reduction. *See* Exh. GMP-JRF-2; PSD Brief Attachment 1.
171. Mr. Mara acknowledges that GMP will still incur expenses related to the categories of work he excluded from the blanket, such as road relocation projects, but proposes a fundamental change in the PUC's approach to recognizing blanket spending as known and measurable costs in a traditional rate case. Instead, Mr. Mara would require GMP bear the costs of the necessary blanket spending in the rate period, and then carry those costs until they can be included in a future traditional rate case. Mara pf. at 46.
172. The Department recognizes elsewhere that this type of deferral may not be appropriate in this case because of GMP's proposed multi-year regulation plan. Specifically, Mr. Winn acknowledged in his testimony that to the extent this case serves as the basis for the multi-year plan "it would not be appropriate to defer recovery of costs contained within the blankets until the next traditional rate case." Winn pf. at 16.
173. Mr. Mara acknowledged on the stand that his analysis of whether GMP's 2018 blanket spending was likely to hit the anticipated budget was inaccurate because he incorrectly compared a fiscal year budget to partial calendar year spending. 10/25/18 Tr at 181-183 (Mara).

Discussion – T&D Projects

The parties have resolved a significant number of proposed adjustments related to GMP's 2019 T&D investments. The remaining disputes focus on three individual projects, and three blanket work orders. We address each in turn below.

Individual Projects

With respect to the three remaining individual projects, GMP has demonstrated that the spending has a high probability of occurring in the rate period, and therefore is known and measurable. DPS does not dispute this conclusion.

For the two proposed MOAB projects, DPS does not argue that the spending is unnecessary, but rather proposes deferral of the costs associated with these projects to a later time, in order to smooth out the overall rate impact of the investments. GMP has explained that these proposed projects are part of a programmatic effort to upgrade and modernize its grid, and the record demonstrates that the proposed projects will provide improved reliability benefits for customers and improved safety benefits for GMP's line crews. The remote operation of these switches allows GMP to resolve faults at substations faster and with less risk to line crews, reducing the duration of outages that would impact the large number of customers fed by these substations. The question presented by DPS is not whether GMP should proceed with this work, but rather when the work should be done and when the costs should be included in rates. If the projects were delayed and pursued later, the reliability and safety benefits would also be delayed. The delay of these projects would also mean that they may need to be accommodated with the capital spending cap in GMP's proposed multi-year plan, or the recovery on the expense may lag for several years, an unreasonable outcome for projects with such clear reliability benefits for customers.

The dispute over the appropriate gauge wire to use as a component of the rebuild of Section I of Line 74 (Project #153588) is minor. The record demonstrates, however, that GMP's choice of covered tree wire was justified and appropriate for this project. GMP's capital

documentation described how the line in question has experienced significant weather-related outages in the past and explained why the use of 336 wire was necessary to accomplish the intended storm-hardening on this line. Where the need is documented and the justification explained, we will not second-guess this level of utility engineering judgment. The expense associated with the use of covered 336-gauge wire should be included in the rate period.

Blanket Work Orders

The Department's position on T&D blanket adjustments is inconsistent with past PUC precedent, and we therefore decline to adopt the Department's adjustments to the Distribution, Transformer, or Regulator & Capacitor blankets.

As the Department acknowledges, the PUC has historically held that blankets meet the known and measurable standard. In fact, the PUC has authorized the use of blankets for T&D projects for at least 25 years – including authorizing the very same three blankets in dispute here, namely GMP's distribution, transformer, and regulator blankets. See, e.g. *In re Green Mountain Power Corp.*, Case No. 5428, Final Order at § (A)(3) (Jan. 4, 1991) (authorizing spending in GMP's distribution, transformer and regulator blankets). The PUC has also traditionally relied on historical averages as the appropriate measure for establishing the level of spending in each blanket, taking into account inflation. See, e.g., *In re Green Mountain Power Corp.*, Case No. 5983, Final Order at 48 (Feb. 27, 1998) (using a seven-year historical average as the base for calculating the distribution blanket and applying a three-percent inflation factor).

GMP used this traditional methodology when it developed its T&D blanket work orders last year, which was approved in the 2018 Rate Case. GMP seeks approval of the same methodology in this proceeding, subject only to the agreed-upon changes to include growth-

related spending this year (consistent with the use of forecasted load and revenue in this case), and the removal of projects above \$250,000 from the blankets, consistent with the 2018 DPS/GMP MOU. We see no compelling reason to depart from this well-established standard in this case.

To the contrary, the evidence indicates that the alternative methodology advanced by the Department's witness, Mr. Mara, is arbitrary and does not take into account all of the types of projects that GMP will need to address during the rate period. He acknowledges that GMP will need to spend capital to meet specific anticipated needs, such as reliability projects, and requested road relocation projects, but proposes that GMP carry these costs until its next traditional case. Similarly, transformers, regulators, and capacitors are fundamental, non-discretionary utility equipment, which GMP must purchase to provide continued reliable service for customers. We do not find these proposed adjustments reasonable. The Department's approach would require abandoning the rationale for using a five-year average for developing these blankets, which is intended to smooth out variations that may occur year to year in individual projects, setting a stable, more consistent budget for customers. The proposed adjustments are also significant, particularly the adjustment to GMP's distribution line blanket, which would cut approximately 63% of anticipated spending for that category. Despite the fact that GMP developed this budget based on an average of spending over five years, Mr. Mara would require GMP to absorb the additional necessary spending and seek to recover in some future rate case, which would just stack costs for customers down the road. We do not believe this approach is in customers' best interests, and it will not result in just and reasonable rates.

Mr. Mara also acknowledges that his proposal to require GMP to break out certain distribution projects below \$250,000 is inconsistent with the MOU the parties reached last year.

That MOU was intended to guide the development of GMP's future traditional rate filings, including the one at issue in this case. We believe it would be inappropriate to change the standard for including projects in blankets after GMP filed its 2019 case in reliance of the agreements reached in the 2018 Rate Case MOU. This is particularly true when the change would reverse more than 25 years of precedent in how blanket spending is handled in Vermont.

iv. Heat Pump Water Heaters

174. GMP's rate base proposal includes \$255,656 in the 2019 rate period and \$278,350 in the interim period for the innovative heat pump hot water heater (HPHW) program.
Castonguay pf. at 4; Exh. GMP-JC-1.
175. GMP has spent time over the past year testing equipment to control HPHWs.
Castonguay rebuttal pf. at 19.
176. As of the summer of 2018, GMP has two control options for HPHWs—the stand-alone Rheem water heater, which includes its own control feature, as well as the Aquanta control unit, which can be used to retrofit or add on controls to other HPHWs. GMP has successfully tested the control functionality for these systems and is using its Virtual Peaker distributed energy resource platform to control the test units. Castonguay rebuttal pf. at 19.
177. GMP plans to offer the HPHW as a tariffed service, and through the tariff process will provide all of the details regarding control of these systems. Castonguay rebuttal pf. at 19.
178. GMP has agreed to require load control as part of the anticipated HPHW tariff during the 2019 rate period. 10/25/18 Tr. at 58 (Castonguay).

179. GMP's Innovative pilot programs have delivered a range of benefits for the market place, beyond just financial benefits. 10/25/18 Tr. at 106 (Castonguay); Castonguay pf. at 9-10.
180. For example, GMP has provided education and information to the market about the benefits of heating and cooling with highly efficient heat pump systems. Many customers that discussed heat pumps with the GMP team did not necessarily go with the GMP offering but learned about the benefits of these systems and went on to purchase them through other means. Castonguay pf. at 9.
181. GMP's focus on innovation has also encouraged other market participants to consider changes to products to provide the types of innovative services GMP is focused on. 10/25/18 Tr. at 106 (Castonguay).
182. The HPHW pilot program provides a good example of this. GMP worked with the Rheem company to explain the benefits of controllable water heaters. GMP was able to demonstrate through its pilot program that customers are interested in the offering and worked with Rheem to develop and deploy the technology, which helped accelerate the offering in the market place. 10/25/18Tr. at 106-107 (Castonguay).

Discussion - HPWH

GMP has proposed including a limited amount of capital in the 2019 rate period to support the continued implementation of its innovative heat pump hot water heater program. In the 2018 Rate Case, DPS and GMP agreed to include the proposed capital expenditures for this program in rates for 2018¹¹. The only question before the Commission therefore is whether to

¹¹ *In re Green Mountain Power*, Case No. 17-3112-INV, Final Order at 7 (Dec. 12, 2017).

continue this program in rates during the 2019 rate period. As the Department notes, the HPHW program has a small rate-reducing effect in this case because the lease revenue associated with the program outweighs its limited capital costs in the rate period.¹²

The Department takes the position that GMP should have the ability to control HPHWs in order to provide the anticipated power supply benefits associated with reducing loads during peak events. GMP has been working to develop this controllability option over the last year, including in partnership with product manufacturers, and now has an option control for future HPHW installations. The current HPHW pilot program expired in June of 2018 and any future units installed in the rate period would be installed under a new anticipated tariff, subject to Commission approval, which GMP will be proposing shortly. GMP has successfully developed a program with one manufacturer, Rheem, which now provides an integrated control option on its devices. GMP has indicated that it is willing to require that all units installed under the tariff be controllable, which will address the Department's comments. Based on GMP's commitment to include a control requirement in the proposed tariff offering, we find that it is appropriate to keep the spending associated with the HPHW program in rates during the 2019 rate period.

C. Capital Structure & Return on Equity ("ROE")

183. GMP's expert, Mr. Coyne, provided analysis supporting a return on equity in the range of 9.9 to 10.4%, with a cost of capital of equity ratio of 49.8% in the rate period. Coyne pf. at 3, 70.

¹² DPS Brief at 14.

184. The mean result of Mr. Coyne's analysis is a 9.9% ROE, which he states he considers to be at the low end of a reasonable range of ROEs for GMP, given its business risk profile and the current economic environment. Mr. Coyne further notes that the upper end of 10.4% is the mean high result from his analyses. Based on these results, Mr. Coyne's recommendation for an appropriate ROE for GMP for the 2019 rate period is 10%.
Coyne pf. at 3; Exh. GMP-JMC-2.
185. As part of the Memorandum of Understanding ("MOU") between the Department and GMP in the previous rate case (Case No. 17-3112-INV), the parties agreed to an annualized ROE of 9.3% for 2019. Coyne pf. at 3.
186. Mr. Coyne states that current market analysis and the increase in utility risk stemming from the Tax Cuts and Jobs Act of 2017, support an ROE well-above 9.3%, but that because GMP believes that the agreed-upon ROE of 9.3% was an important part of the agreement reached with the Department in the prior rate case, GMP has chosen to uphold its agreement to set an annualized ROE of 9.3% for the rate period of January 1, 2019 to September 30, 2019. Coyne pf. at 3.
187. GMP's current ROE of 9.1% and the agreed-upon 9.3% for 2019 are at the absolute lower end of allowed ROEs for vertically integrated electric utilities. GMP's current ROE of 9.1% is the lowest authorized return for any vertically integrated electric utility authorized in the U.S. in recent history and is the second lowest going back as far as 1980. Coyne pf. at 4.
188. Based on GMP and the Department's prior agreement, Mr. Coyne recommends that the Commission adopt 9.3% as the appropriate ROE for GMP for the 2019 period, assuming no changes to GMP's risk profile. Coyne rebuttal pf. at 5.

189. The Department's expert witness, Richard Baudino, states that based on his analysis, a reasonable ROE would be in the range of 8.70%-9.35%. Baudino 2-3.
190. The 9.3% ROE for 2019 agreed to by GMP and the Department falls within the range of Mr. Baudino's analysis, and he recommends that the Commission adopt this ROE. Baudino pf. at 34-35.
191. GMP's filing includes a requested cost of short-term debt of 1.83%, which the Department's witness concludes is reasonable and recommends that the Commission adopt. Exh. GMP-ER-1(Rev.); Baudino pf. at 35.
192. GMP's requested capital structure and cost of debt included several forecasted bond issuances for September 2018 (at a 4.50% yield), December 2018 (at a 5.05% yield), May 2019 (at a 5.25% yield), and June 2019 (at a 5.255% yield). Ryan pf. at 39; Baudino pf. at 35.
193. Mr. Baudino recommended that the interest rate on the September 2018 long-term debt issuance be updated to reflect the actual interest rate of the 2018 issuances, and the interest rate on the remaining two other projected long-term debt issuances be reduced to 4.50%. Baudino pf. at 35-36.
194. In rebuttal, GMP accepted Mr. Baudino's recommendation and updated its cost of service to reflect the actual interest rates on the September and December 2018 long-term debt issuances, which GMP locked in on August 21, 2018, and a 4.50% interest rate on the remaining 2 other projected long-term debt issuances. This adjustment reduced GMP's rate request by 0.10%. Ryan rebuttal pf. at 4-5; Exh. GMP-ER-17 (Rev.).
195. GMP's final proposed capital structure is 50.15% debt and 49.85% equity. Exh. GMP-ER-1(Rev.).

Discussion

The Department and GMP witnesses agree on the appropriate capital structure for this rate filing. With respect to the cost of both short-term and long-term debt (as adjusted in GMP's rebuttal filing), witnesses from both parties have testified that the rates proposed in GMP's revised cost of service are both reasonable and appropriate.

With respect to the rate of return on equity, it is well-established that “[n]either the law nor regulatory precepts prescribe a specific methodology for setting the appropriate return on equity,”¹³ and that the Commission therefore has substantial discretion in determining an appropriate rate level.¹⁴ The Commission has repeatedly emphasized that the critical element is the “reasonableness of the result” and not the methodology employed to reach it.¹⁵ The basic standard for an appropriate rate of ROE is as follows:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.¹⁶

¹³ *In re Green Mountain Power Corporation*, Case No. 7175, Final Order at 7 (Dec. 22, 2006).

¹⁴ *Investigation into Green Mountain Power Corporation's Tariff Filing*, Case No. 8190, Final Order at 21 (Aug. 25, 2014).

¹⁵ *Id.*; *FPC v. Hope Natural Case Co.*, 320 U.S. 591, 602 (1944).

¹⁶ *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679, 692-93 (1923).

These principles have been incorporated into Vermont statute and have been endorsed repeatedly by the Vermont Supreme Court.¹⁷

GMP and the Department are the only parties to provide testimony regarding a specific recommended rate of return in this proceeding. Although the range of appropriate ROE provided by both experts differs, both agree that based on the prior agreement between GMP and the Department in the preceding rate case, an annualized ROE of 9.3% for 2019 is appropriate for GMP at this time and recommend that it be adopted by the Commission. Given these facts, our substantial discretion in setting ROE rates, and the testimony submitted by parties on this issue, we find that an annualized ROE rate of 9.3% for 2019 is reasonable and should be adopted. We further find that GMP's final proposed debt to equity ratio of 50.15% to 49.85% is appropriate and approve this capital structure.

D. Settlement with GlobalFoundries

196. On July 31, 2018, GMP and GlobalFoundries executed a Term Contract (“GF Settlement Agreement”) consisting of a memorandum of understanding and an addendum of specific rates and terms. See Agreement, Exh. GMP-KC-1.
197. GlobalFoundries is the largest private employer in Vermont, is the state’s largest manufacturer, and is the only member of GMP’s transmission class (Rate Class 70). As a transmission class customer, GlobalFoundries owns and pays to maintain its own distribution system and step-down transformers to which GMP’s transmission service is

¹⁷ *Investigation into Green Mountain Power Corporation’s Tariff Filing*, *supra* note 14.

- connected. GlobalFoundries does not use GMP's distribution system. Exh. GF-PF-1 at 5-7; GF-AW-1 at 4.
198. The GF Settlement Agreement represents a single comprehensive settlement between the parties in all open GMP proceedings to which GlobalFoundries is a party, which include this proceeding, GMP's Multi-Year Regulation Plan proceeding (Case No. 18-1633-PET), and GMP's Rate Design proceeding (Case No. 18-2850-TF). In addition, the GF Settlement Agreement has been submitted to the PUC for approval under 30 V.S.A. §229 and is currently under review in a separate proceeding (Case No. 18-3160-PET). Exh. GMP-KC-1; Exh. GMP-KC-2 at 6.
199. GMP entered the GF Settlement Agreement in order to resolve GlobalFoundries' concerns in the pending dockets listed above, which saves ratepayers further litigation expenses and other potential impacts that could come above from individual litigation across all dockets. The GF Settlement agreement also provides incentives for GlobalFoundries to continue to make purchases of electricity that will benefit all GMP customers by contributing to common costs, and to expand economic development at GlobalFoundries' campus. Exh. GMP-KC-2 at 6, 15.
200. Because GlobalFoundries is the only customer in the Transmission Class, this agreement functions like a tariff change rather than a deviation from rates charged to other customers within a class under Section 229. However, it is appropriate to seek PUC approval of the change under Section 229 as a contract for a "definite term" between GMP and GlobalFoundries while simultaneously satisfying the concerns that GlobalFoundries has raised in prior cases. GlobalFoundries has also agreed to energy

efficiency measures and reporting, as has been done in other Section 229 approvals. Exh. GMP-KC-2 at 13.

201. If GlobalFoundries were to leave Vermont, it would have a significant impact on the State due to the large number of employees (over 2,500) and high salary positions. It would also have a significant impact on all other GMP customers, to whom GlobalFoundries' portion of infrastructure costs would be shifted. Exh. GF-AW-1 at 8; Exh. GMP-KC-2 at 3-4.
202. The net effect of the GF Settlement Agreement on all customers other than GlobalFoundries during the 2019 Rate Period, as compared to current billed base rates, will be a greater overall decrease compared to that set forth in GMP's initial filing. This is because GlobalFoundries has agreed to forgo its share of the tax credit to customers that GMP has proposed to provide in the 2019 rate period. Ryan rebuttal pf. at 2.
203. There are three specific components of the GF Settlement Agreement that will impact customers' bills during the rate period. Ryan rebuttal pf. at 14.
204. The first component is a freeze of GlobalFoundries' rates at the current rates in effect. This will result in additional 2019 rate period revenue deficiency being collected from all other customers in the amount of \$1,433,916. Ryan rebuttal pf. at 14.
205. The second component is that GlobalFoundries has agreed to forgo their 2019 rate period tax reform bill credit of \$1,670,082, which results in an increase in the benefit to other customers. Ryan rebuttal pf. at 2, 14.
206. The third component is that the agreement calls for GlobalFoundries' base rates to be reduced by \$767,004 or approximately 2.73% of current rates in order to reflect GMP's recommended rate design allocation for Class 70 in Case No. 18-2850-TF (GMP's Rate

Design Proceeding), which is currently ongoing. The GF Settlement Agreement seeks this adjustment to be effective starting on January 1, 2019, even if the Commission Order in the Rate Design Proceeding has not yet issued. Since rate design by its nature is revenue neutral across all customer classes, other customers will absorb this adjustment for Class 70, either pro rata or based upon the total class allocation adjustments adopted in the Rate Design Proceeding. Ryan rebuttal pf. at 14-15.

Discussion

Although approval of the GF Settlement Agreement under 30 V.S.A. § 229 is currently before the Commission in a separate proceeding, we find it necessary to confirm our support of the portions of this agreement as they relate to the rate need and cost of service in the current proceeding.

With respect to the standards that govern the Commission's approval of contracts under § 229, the GF Settlement Agreement is for a "definite term" as required by the statute, from January 1, 2019 through September 20, 2022. It includes requirements for energy efficiency measures and reporting, and also contains an agreement between the parties to investigate other ways to incentivize industrial and manufacturing load, which could serve to benefit all customers. The agreement also exempts GlobalFoundries from non-transmission-related major storm costs and the power supply adjustor and incentivizes the use of GlobalFoundries' campus for new controllable loads. With respect to this case in particular, there are three components of the GF Settlement Agreement which impact other customers' rates: the proposed freezing of GlobalFoundries' rates at their current level; GlobalFoundries' agreement to forgo the benefit of the tax reform bill credit; and the reduction in rate allocation for the transmission rate class

(Class 70) of which GlobalFoundries is the only member as part of GMP's proposed rate design. The re-allocation rate for Class 70 would take effect on January 1, 2019, at the same time as the revised rates resulting from the Commission's decision in this case.

We approve the inclusion of the three components above in GMP's cost of service, and by extension, the impact of these components on the rate need. GlobalFoundries' forgoing of the tax credit results in a net benefit to other customers during the rate period that is better than GMP's initial filing. Moreover, GMP and GlobalFoundries have provided compelling evidence of GlobalFoundries' role as GMP's largest and only transmission class customer, and the largest private employer in Vermont. Mr. Flaherty testified to the significant amount of electricity that GlobalFoundries requires for its operations, and the cost burden of this energy on the company. Mr. Woolf also testified to GlobalFoundries' contributions to the Vermont economy, both on a statewide and local level. GlobalFoundries provides over 2,500 jobs, many of them high salary positions that result in higher tax contributions¹⁸, and itself pays millions of dollars in state and local taxes. If GlobalFoundries were to leave Vermont, it would therefore result in a significant economic impact on the state, and to GMP's ratepayers, would result in additional rate burden to pay for the substantial amount of infrastructure costs that GlobalFoundries currently carries. In other words, if GlobalFoundries were to leave Vermont, it would have a rate increasing effect for all GMP customers.

Given that it is in the best interest of the state for GlobalFoundries to remain operating in Vermont at its current level, and in the best interest of GMP ratepayers to avoid the increase of infrastructure costs that would occur if GlobalFoundries left GMP territory, we approve the GF

¹⁸ For perspective, Mr. Woolf testified that over \$8.2 million in state income taxes was withheld from employee paychecks.

Settlement Agreement with respect to the provisions that impact this case. More specifically, the Commission concludes that for purposes of this case, approval of the relevant components of the GF Settlement Agreement is in the best interests of ratepayers, and we therefore approve GMP's cost of service as it incorporates the freezing of GlobalFoundries' rates at their current level, GlobalFoundries' agreement to forgo the benefit of the tax reform bill credit, and the 2.7% reduction in rate allocation for Class 70. The Commission will further address the other components of the agreement in the other proceedings to which they relate.

E. Power Supply

207. GMP's initial filing was supported by testimony from Mr. Smith as to the underlying changes in GMP's power supply costs that are cost drivers for GMP's present rate need, and the power supply costs included in the rate filing. Smith pf. at Sections II, III.
208. GMP's cost of service reflects an increase in projected total rate period power-supply-related costs from \$288.5 million in 2017 to \$322.6 million in 2019, an increase of about \$34.1 million. Smith pf. at 14; Exh. GMP-ER-1(Rev.).
209. With respect to power supply, the Department raised an issue with GMP's accounting of RECs, the Regional Network Service ("RNS") rates included in the filing, GMP's overall transparency with respect to GMP's hedging activities and power supply purchasing decisions, and consideration of Demand Resource alternatives. The Department also raised issues with modeling for the Tesla Powerwall 2.0 Program and JV Solar/Storage Projects, as discussed in Section B above. McNamara pf. at 7-9; Dawson pf. at 4-20, 45-46.

210. Regarding RECs, the Department stated that it understood from GMP that the REC inventory balance included in the filing reflects RECs that have been paid for, but not yet delivered due to a lag in the creation of RECs. This results in GMP including RECs in rate base and collecting a return on these RECs. McNamara pf. at 8.
211. GMP states that it applies U.S. Generally Accepted Accounting Practices (“GAAP”) to its accounting and ratemaking of RECs. GMP incurs a REC cost at the time that the related power is purchased, and GMP charges that cost to a REC inventory account. When the RECs are later sold, typically about six months after the generation that produced the RECs, GMP records revenue from the sale of RECs and reduces the REC inventory balance by charging out the cost of the sold RECs. GMP records the cost of the RECs as an expense against the REC revenue. Ryan rebuttal pf. at 8-9.
212. GMP has historically included the REC inventory in rate base because RECs function like an inventory item; inventories (Materials & Supplies, fuel inventory, etc.) represent longer-term assets funded by a company’s capital structure and used in supplying utility service to customers. Ryan rebuttal pf. at 9.
213. The Department agrees with accounting method GMP has applied to purchased RECs, but states that GMP should only earn a return on RECs that are required for compliance, whereas if RECs are not needed for compliance and are purchased with the intent to resell, then GMP should not be able to return a return on these RECs. As a result, the Department recommends that GMP not be permitted to earn a return on 95% of its REC inventory (the approximate amount of RECs that GMP estimates will be sold), which amounts to \$4.08 million. McNamara pf. at 8-9.

214. In response to the Department's recommendation, GMP states that it supports the ratemaking proposal to move from an inventory approach to REC accounting and instead recover REC costs at the time the purchase power invoice which includes the REC costs is recorded. Ryan rebuttal pf. at 9.
215. Since this change will ultimately result in GMP's REC inventory being eliminated, GMP agrees that it is appropriate to accrue a return on this inventory balance based on its short-term debt bank loan interest rate, and proposes to work with the DPS to develop a plan to transition away from a REC inventory as part of its Multi-Year Regulation Plan. Ryan rebuttal pf. at 9.
216. The impact of the removal of RECs is a downward adjustment of 0.05% to GMP's rate need, which GMP incorporated into its revised cost of service. Exhs. GMP-ER-1(Rev.); GMP-ER-17(Rev.).
217. The Department also raised an issue with the RNS rates presented in GMP's filing, noting that although the actual RNS rate for the rate period was not known at the time of GMP's filing, and that GMP provided a good faith projection of the RNS rate, the filing should be updated to include the actual RNS rate for the January 2019 to May 2019 period once it was established. McNamara pf. at 7.
218. GMP agreed to this adjustment, and incorporated a downward adjustment of 0.09% into its revised cost of service. Smith rebuttal pf. at 2; Exhs. GMP-ER-1(Rev.); GMP-ER-17(Rev.)
219. GMP and Department witnesses also agree on how to address the Department's concerns with GMP's process and documentation of procuring energy, capacity, and RECs. McNamara surrebuttal pf. at 1-2.

220. GMP and Department staff met to discuss the Department's concerns and agreed to the following general approach: GMP will provide a summary/overview of its procurement strategies in the Integrated Resource Plan to be filed at the end of 2018, followed by development of more detailed internal documents that discuss procurement strategies associated with the particular products the GMP typically purchases and which describes the timing, sequencing, price-points, and process of these purchases. McNamara pf. at 2.
221. GMP agrees to collaborate with the Department to increase transparency and clarity into its procurement transaction process, but emphasizes the importance of maintaining a significant degree of flexibility so that GMP can respond to changing market conditions, including the rapid transitions occurring in the New England energy, capacity, and REC markets. Smith rebuttal pf. at 31-32.
222. The Department recommends that the Commission include a condition in this order requiring GMP to make a regulatory filing within 6 months of the date of this order detailing the documentation GMP and DPS have agreed on for specifying GMP's energy and capacity hedging strategies. McNamara surrebuttal pf. at 3.
223. This approach resolves the concerns of the Department with respect to transparency into GMP's power supply procurement process and satisfies Mr. Dawson's recommendations regarding action items for GMP's hedging activities. Dawson surrebuttal pf. at 2; 10/25/18 Tr. at 152 (Dawson).

Discussion – Power Supply

Although the Department initially raised a number of issues and proposed adjustments with respect to GMP's incorporation of power supply expenses in this filing, these concerns have

been fully resolved by the parties. First, the parties have agreed to remove REC inventory from rate base and have proposed an accounting methodology for RECs going forward. The Commission finds this approach to be reasonable and approves the removal of RECs from the cost of service, as reflected in GMP's revised filing. Second, the parties have agreed to an updated RNS rate, which has been incorporated into GMP's revised cost of service filing, and which the Commission also finds reasonable. Finally, the parties have come to resolution regarding a process for establishing increased transparency into the decision-making process with which GMP makes power supply procurement decisions. Per the Department's recommendation, within 6 months of this order, GMP shall file documentation of the process agreed to by GMP and the Department with respect to GMP's energy and capacity procurement, or if no agreement has been reached, a summary of the parties' progress to date.

V. CONCLUSION

For the reasons set forth above, and on the basis of the evidence in this proceeding, the Commission concludes that an increase of 5.43% to GMP's current rates on a bills-rendered basis, effective January 3, 2019, and to be fully off-set by bill credits through September 30, 2019, will result in just and reasonable rates for GMP customers. In reaching this conclusion, the Commission has considered the reasonableness of the individual components of the cost of service, as well as the resulting 5.43% increase. The Commission's conclusions are further informed by the parties' resolution on those aspects of the cost of service that there is consensus on, as outlined in the findings and discussions above.

VI. PROPOSED ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Public Utility Commission of Vermont that:

1. Green Mountain Power (“GMP”) may implement a rate increase of 5.43% to its rates on a bills-rendered basis on or after January 3, 2019. GMP shall offset this rate increase with bill-credits until September 30, 2019.
2. GMP shall file revised tariffs and a revised cost of service reflecting in compliance with this Order within ten business days of this Order.
3. Within 6 months of this Order, GMP shall file documentation of the process agreed to by GMP and the Department with respect to GMP’s energy and capacity procurement, or if no agreement has been reached, a summary of the parties’ progress to date.

Dated at Montpelier, Vermont, this ____ day of _____, 2018.

_____]]
_____]] PUBLIC UTILITY COMMISSION
_____]] OF VERMONT
_____]]
_____]]

OFFICE OF THE CLERK
FILED:
ATTEST: _____
Clerk of the Commission