STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. _____

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

PREFILED TESTIMONY OF DOUGLAS C. SMITH ON BEHALF OF GREEN MOUNTAIN POWER

June 4, 2018

Summary of Testimony

Douglas Smith testifies about the aspects of the Multi-Year Regulation Plan that concern power supply costs and revenue. Mr. Smith describes GMP's process for annually forecasting costs and retail revenue, and how the Retail Revenue Adjustor and Power Supply Adjustor proposed by GMP for the term of this Multi-Year Regulation Plan improve upon prior mechanisms. Mr. Smith describes how GMP's treatment of power supply costs and revenue align the Company with the interests of its customers and meet the requirements of 30 V.S.A. § 218d.

Exhibit List

Exhibit GMP-DCS-1	Sample Retail Revenue & Power Supply Adjustors Calculation
Exhibit GMP-DCS-2	ITRON 10-year Revenue Forecast

TABLE OF CONTENTS

PREFILED TESTIMONY OF DOUGLAS C. SMITH ON BEHALF OF GREEN MOUNTAIN POWER

I. INTRODUCTION

Q1. Please state your name, address and occupation.

A1. My name is Douglas C. Smith. I am Chief Power Supply Executive for Green Mountain Power ("GMP").

Q2. Please describe your educational and business background.

A2. I have worked for over 25 years in the electric industry, focusing on topics that include electric system and portfolio planning, wholesale and retail power transactions, and market price forecasting. I hold a Bachelor of Science degree in Mechanical Engineering from Brown University.

I began my career as an analyst at the Vermont Department of Public Service ("DPS" or "Department") and was subsequently promoted to the position of Electrical Planning Engineer. From 1991 to 2007, I worked at La Capra Associates ("La Capra"), a consulting firm[1] that specializes in planning and regulatory issues in the electric industry. I ultimately became La Capra's Technical Director. While at La Capra, I advised several Vermont utilities regarding their power transactions, risk management strategies, and Integrated Resource Plans. On behalf of state agencies and large electricity customers, while at La Capra I reviewed the procurement strategies of numerous large utilities in the

[1] La Capra is now known as Daymark Energy Advisors.

eastern, central, and western U.S. I also led the firm's forecasting of New England wholesale electricity market prices and assisted in the siting applications of several proposed electric generating plants. I joined GMP in 2007 and supported the development of GMP's first Regulation Plan. I am also helping lead GMP's new Integrated Resource Plan. I currently play a primary role in the development of GMP's power supply strategy. The power supply team conducts the bidding of GMP's load and generation sources into the ISO-New England, Inc. ("ISO-NE") energy and capacity markets, sells Renewable Energy Certificates ("RECs") produced by GMP's resources, and leads the evaluation of potential power supply resources and the implementation of power purchase transactions.

Q3. Have you previously testified before the Public Utility Commission ("Commission" or "PUC")?

A3. Yes, I have testified before the Public Utility Commission on numerous occasions, on topics that include resource planning, proposed power purchase contracts and generation projects, electric utility revenue requirements, and the development of Standard Offer rates and PURPA avoided cost rates. Currently, I am a witness in GMP's 2019 traditional cost of service rate case, Case No. 18-0974-TF, among other matters.

Q4. What is the purpose of your testimony in this case?

A4. My testimony supports GMP's request for a Multi-Year Regulation Plan ("MYRP" or the "Plan"). I show that this is a plan that benefits and protects customers and ensures the

company can remain financially viable to serve them. I provide an overview of how we forecast power supply costs and revenue, and the process by which we propose to conduct those forecasts annually over the term of the MYRP. I then address the mechanics of the proposed Retail Revenue Adjustor and Power Supply Adjustor, including new features that provide greater decoupling of sales from revenue and require even greater focus by GMP on managing power costs to the extent we are able. My testimony shows how in this time of energy transformation, the proposed process of annual forecasting to help set yearly base rates, coupled with the use of adjustors to true-up any difference between actual retail revenue and power supply cost compared to these forecasts, align GMP with our customers' best interests and also meet the statutory criteria set forth in Section 218d of Title 30, Vermont Statutes Annotated.

Q5. Please summarize the primary findings and themes from your testimony.

A5. GMP regulation plans have worked well for more than a decade, providing beneficial outcomes for customers compared to "traditional" rate regulation as applied in Vermont. GMP's proposed MYRP therefore retains some of the core features of the current Plan with respect to the treatment of power supply costs—most notably:

- An annual adjustment to base rates to reflect forecasted GMP retail sales (based on a third-party forecast) and associated net power costs each year;
- Within each year, the measurement of variances between GMP's actual power costs and those reflected in retail rates on a quarterly basis; and

- Full reconciliation of GMP's actual net costs for some ("Component A") costs which are largely outside of GMP's control, and a sharing of variances in other ("Component B") costs over which GMP has somewhat greater control.

At the same time, GMP (with helpful input from staff at the Public Service Department) has identified areas for significant improvement of the former plan design given the changing energy landscape, so we propose some updated design features. Most notably:

- To accomplish a more complete decoupling of GMP's financial outcomes from retail sales volumes, we propose a new Retail Revenue Adjustor that will return/collect any differences between GMP's actual retail revenues (in dollars) and those that were used to set GMP's rates. Under this approach, the current Volume Variance Adjustment (presently part of Component B) will no longer be needed.
- We propose to simplify and strengthen how variances in Component B power costs are quantified and shared with customers, requiring GMP to compare the actual average cost per kWh to the forecasted average cost/kWh reflected in retail rates and share the variance with customers. This method will more transparently show changes in GMP's underlying power costs and encourage us to manage costs where we can, in lieu of the current Component B variance that also contains changes driven by retail revenue.
- We propose to return/collect balances based on retail revenue and power cost variances on a quarterly basis, rather than accumulating such differences over

a full year and collecting them the following year. This will greatly reduce the lag between returns/collections and the underlying events that caused them, creating more transparency, and will limit the magnitude of accumulated balances to be returned to or collected from customers later.

I expect that collectively, these refinements will make the plan better suited to ensure positive outcomes for customers and a financially viable utility to support them in this rapidly changing energy landscape, without creating a significant shift of value between GMP and our customers.

II. MODIFICATIONS TO POWER SUPPLY ADJUSTOR AND NEW RETAIL REVENUE ADJUSTOR

Q6. Please explain the major structural elements of the current Power Supply Adjustor.

A6. It is helpful to review our current regulation design before explaining the changes in the MYRP. The Power Supply Adjustor currently has five structural elements:

- Components A and B
- Benchmark Power Costs
- Volume Variance Calculation
- Efficiency Band
- Duration and Timing

Components A and B include all of the power costs that are recovered through the Power Supply Adjustor; the underlying elements of these remain the same under the new Plan and the current regulation plan. These are set forth in Attachment 2 to the MYRP.

Component A is made up of costs that are largely outside GMP's control to materially influence in the short-term (i.e., during a rate year). To the extent that actual costs for these categories in each quarter turn out differently from the level of costs that was included in GMP's retail rates for that quarter, the difference is directly passed through the adjustor to customers on a dollar for dollar basis. Component B is made up of costs that GMP does have some control over, although (as I will discuss below) many short-term variances are driven by factors that are completely outside of GMP's control to influence.

The **Benchmark Power Costs** for any given quarter represent the current forecasted power costs and volumes that are projected for the quarter and are being recovered in GMP's base rates. Separate benchmark costs are forecasted for Component A and Component B; these benchmarks are the basis of comparison for all variance calculations.

The current **Volume Variance Calculation** is based on the difference between the forecasted and actual retail sales volumes. The MWh difference is multiplied by the a $/MWh rate that reflects GMP's average power related costs (including Components A and B), to arrive at a dollar adjustment to GMP's benchmark costs for the purpose of calculating the quarterly Power Supply Adjustor results. The cost adjustment is positive if sales increase, and negative if they decrease. This element of the Power Supply Adjustor has the effect of returning money to customers when sales volumes increase and collecting money from customers when sales volumes decrease. This reduces the link between changes in retail sales and changes in GMP's earnings—although in a more

complex and less transparent way than the full Retail Sales Adjustor GMP proposes in this new regulation plan.

The **Efficiency Band**, also known as the "dead band" range, is the mechanism that maintains a direct incentive for GMP to manage and minimize power costs on a short-term basis. The Efficiency Band is a tool to increase the utility's financial stake in managing power costs between rate cases, because cost variances within that band are absorbed by the utility, not shared with customers. GMP currently absorbs all variances in Component B power costs (including those driven by the Volume Variance Adjustment) up to plus-or-minus $307,000 each quarter, and also absorbs 10 percent of all Component B variances outside of this range.

Finally, the D**uration and Timing** of the current Power Supply Adjustor is noteworthy. While the Power Supply Adjustor is calculated quarterly, the adjustment itself (i.e., a return of funds to customers if actual power costs turn out lower than the benchmarks, or collection of funds from customers if actual power costs turn out higher) is currently made annually, based on the net sum of the four quarterly amounts.

Q7. Can you please summarize the distinction between Component A and Component B items in the Power Supply Adjustor?

A7. Yes. The primary distinction is the relative degree of influence that GMP can exert on these costs in the short-term (e.g., during a quarter or rate year). Component A contains some large items (e.g., Forward Capacity Market costs, Transmission by Others) that tend to be subject to large, discrete changes based on factors like actual (weather-driven)

peaks in Vermont and New England[2]—along with some costs (e.g., the loss component of ISO-NE energy market purchases and sales) which cannot be directly managed. These costs also tend to be subject to larger, discrete changes based on factors like actual (weather-driven) peaks in Vermont and New England. GMP's Component A costs are also affected to some extent by the timing and magnitude of expenditures at joint-owned plants (which are generally not controlled by GMP), and in some expense categories by more arcane factors like true-ups or refunds from past periods. I should also note that GMP's Forward Capacity Market costs are determined by relatively arcane calculations, and subject to some error in estimation. Based on the nature of these costs and revenues, GMP believes that it remains appropriate for Component A costs to be fully reconciled, so that customers ultimately pay no more or less than the actual costs that GMP incurs.

Component B costs are primarily those associated with the purchase, generation, and sale of energy (including interchange with the ISO-NE spot market), along with REC revenues (which depend largely on volumes of generation from GMP's renewable sources) and RES compliance expenses. There tend to be more ways that GMP can influence these costs (e.g., through energy bids and offers in the ISO-NE market; maintenance of GMP generating plants to cost-effectively maximize their availability and production; REC sale strategy; efforts to achieve RES compliance at low cost), although Component B costs are also subject to substantial near-term variances (e.g., fluctuations in renewable plant output) that are not within GMP's control. Based on the nature of

[2] GMP can influence these costs only to a limited degree in the short-term (for example, by managing responsive demand sources to limit peak-driven costs).

these costs and revenues, GMP believes that it remains appropriate for GMP to have some significant financial exposure to outcomes for Component B costs, as an incentive for effective management of those costs, while customers absorb most of the costs or savings associated with larger variances.

Q8. Has the current Power Supply Adjustor design worked well?

A8. Yes, overall the Power Supply Adjustor has generally operated as expected and has been a significant improvement over traditional regulation. In simplest terms, the current design has handled a wide range of actual power supply costs (including instances in which actual costs turned out significantly below or above values reflected in rates) and retail sales levels, avoiding substantial potential windfalls and shortfalls for GMP's customers that would likely have occurred under traditional regulation, while maintaining the appropriate incentive for GMP to limit its power costs. The Power Supply Adjustor has also supported a number of other positive outcomes:

- During the term of the plan GMP has supported the acquisition of renewables through multiple mechanisms (i.e., net-metering, Standard Offer program, GMP-sponsored projects, bilateral PPAs) which have enabled the deployment of hundreds of MW of capacity from solar PV and wind plants, along with the acquisition of significant hydroelectric capacity.
- Rating agencies have consistently identified GMP's regulation plan as having a positive influence on GMP's risk profile. This is supported by Standard and Poors' ("S&P") most recent credit rating report for GMP issued in January

2018, which maintained our corporate credit rating at "A-; Outlook Stable." This report specifically highlighted that the extension of certain regulatory mechanisms from the Plan, such as a power cost adjustor and storm cost adjustor, support GMP's credit rating by limiting the risk that GMP's actual earnings will turn out far below its allowed rate of return.[3] Prior S&P rating reports have also noted positive features of the regulation plan. Based in part on this context and GMP's financial results, GMP's current "A" rating for long-term, senior secured debt helps to reduce bond placement costs and lower interest rates that our customers pay for to support required GMP capital investments.

- The presence of the Power Supply Adjustor limits the magnitude of financial shortfalls or windfalls that GMP may experience based on variances in actual power costs, and also enables GMP and the Department to more often efficiently resolve differences about input assumptions regarding rate year power costs, particularly for items (e.g., certain ISO transmission and capacity costs) which are largely outside of GMP's control. I believe that without the Power Supply Adjustor, parties could expend significantly more time and resources—without any greater certainty—pressing for their view of these cost forecasts. This would be an inefficient outcome, and one that results in

[3] Of course, the same provisions also limit the risk that GMP's actual earnings could far exceed the allowed rate of return.

significant financial windfalls or shortfalls based substantially on random outcomes (rather than effective management of power costs).

Q9. Does GMP's proposed treatment of power supply costs and retail revenue in this new MYRP retain key elements of the regulation plans under which GMP has operated in past years?

A9. Yes. The proposal for this MYRP sets base rates annually through forecasts of power supply costs and retail sales, among other line items, and then uses adjustors to collect or return variances between these forecasts and actual results. We propose using the designations currently in place for the components of our power costs in our new plan, described further below as Component A and Component B.

Q10. What areas of the current power supply costs and revenue design has GMP identified as appropriate for refinement in the new MYRP?

A10. In reviewing the current plan, GMP sought to address the following observations:

- The current Volume Variance Adjustment serves to reduce the link between GMP's financial performance and variances in retail sales volumes within the rate year, but only in an approximate way.

- The current Power Supply Adjustor addresses variances in GMP's power and transmission costs together with variances in retail sales volumes in a single calculation. This complicates the calculation of Power Supply Adjustor variances and can make it more difficult to see (for both GMP and our regulators) which of these factors is driving Power Supply Adjustor adjustments.
- The present practice of measuring Power Supply Adjustor variances quarterly but only returning/collecting them over the following year (on average, about one full year *after* the quarterly variances are calculated) results in a significant lag between when cost increases (or savings) are incurred and when they are experienced by customers.[4] In addition, if several adverse Power Supply Adjustor variances occur in the same year, they can accumulate into balances that meaningfully add to retail rate pressure that customers experience in subsequent years. For example, in three of the past five years, the accumulated Power Supply Adjustor balance to be collected in the following year has amounted to at least $6 million, or about 1 percent of GMP retail rates.

[4] For example, if GMP experiences significant increased power supply costs due to an extraordinarily cold March, collection of the associated balance would occur in the following fiscal year—that is, from 7 to 18 months after the cold snap.

Q11. Please explain the rationale for GMP's proposed new Retail Revenue Adjustor.

A11. The Retail Revenue Adjustor is intended to more completely decouple GMP's financial results from short-term changes in retail sales. Given the radical transformation happening in our sector, particularly in Vermont, this is important for maintaining appropriate cash flows and financial viability for the company to deal with unexpected financial variances like major storms or dramatic power market swings. Under traditional regulation, retail rates can significantly over- or under-collect a utility's revenue requirements, even in the short-term, based on rate year variances in factors such as weather, economic and demographic trends, or the pace of net-metering.

The current Volume Variance Adjustment only partially addresses the link between short-term sales volumes and GMP's earnings, because it is based on GMP's average power and transmission costs which are much less than the incremental retail revenue that GMP typically gains, or loses, when electricity consumption increases or decreases. In addition, the current Volume Variance Adjustment is applied to variances in retail sales volumes (in kWh), as opposed to variances in retail revenue.

GMP is proposing a Retail Revenue Adjustor that will address these observations and accomplish a much more complete decoupling, by tracking variances in GMP's retail revenue compared to those allowed in rates and returning/collecting the difference to customers.

Q12. Please summarize how the proposed Retail Revenue Adjustor will work.

A12. As I will explain more fully below, quarterly retail revenues will be forecasted each year by an outside expert and presented for review as part of GMP's annual filing of refreshed retail sales and power costs. After each quarter, GMP's total retail revenues (from all customer classes) will be tracked and compared to the forecasted quarterly values upon which GMP's current retail rates are based. The difference—in dollars—for each measurement quarter will be identified as a regulatory asset/liability for collection/return to customers in the second following quarter.[5] Because the Retail Revenue Adjustor will track variances in GMP's total retail revenue in dollars, it will capture changes that are driven by changes in retail sales volumes, as well as changes in the mix of those sales across rate classes and associated retail rates.

This is why GMP believes that the Retail Revenue Adjustor is a significant improvement in the design of our proposed MYRP, compared to both traditional rate making and the current plan. The Retail Revenue Adjustor we have proposed in the MYRP addresses uncertainty in retail revenues, as well as the associated utility incentives, in a way that is transparent and direct, and will reduce the extent to which GMP's financial performance between rate cases is linked to increased electricity sales or threatened by decreases in such sales.

[5] As I will explain further below, GMP proposes to calculate variances in retail revenues and power costs in separate steps, and to return/collect the resulting balances through a single combined adjustor (in cents/kWh).

Q18. Are GMP's power costs still subject to meaningful short-term variations, as they were when the Power Supply Adjustor was originally designed?

A18. Yes. As I explained in Case No. 17-3232-PET (regarding GMP's current regulation plan), short-term variations (both increases and decreases) in net power and transmission costs are still a significant feature of GMP's power supply. Although GMP's power portfolio relies substantially on power sources that are stable-priced in the long-term, and our power supply strategy helps to produce a relatively smooth path of power costs and retail electric rates over time, our net power costs are still subject to meaningful variance within any given quarter or year that can be largely outside of GMP's control. In addition, the magnitude of many of the potential variances has increased and the frequency of significant variances has likely increased—due to a combination of changes in weather, the wholesale power markets and GMP's power portfolio. While any of dozens of individual factors could potentially cause variances in GMP's quarterly net power costs, the following are leading changes that have contributed to maintaining or increasing the magnitude of potential variances in GMP's net power costs:

- RNS transmission rates have more than tripled since 2006, as a result of a sustained phase of construction of bulk transmission facilities in the region. As a result, GMP's RNS expenses are much more strongly affected by fluctuations (typically driven by short-term weather conditions) of monthly peak loads, which determine GMP's monthly RNS charges. Similarly, if the regional monthly peak loads that determine Vermont Electric Power Company, Inc.'s ("VELCO") transmission revenues (and therefore GMP's net

transmission costs through the 1991 VTA agreement) turn out unusually low, then GMP's net transmission costs can increase significantly. For example, if the regional peak load turns out 10 percent lower than normal in an average month, then (all else equal) GMP's share of transmission expense through the VTA would increase by over $1 million, and the potential variance in higher load months (or cumulatively over several months) is larger.

- Spot market energy prices (Locational Marginal Prices, in the day ahead and real time markets) remain volatile, and fluctuations in LMPs tend to affect GMP's net power costs when customer demand and/or intermittent power production is much higher or lower than typical norms within a month.[6] During cold days in some recent winters, constraints on the interstate natural gas pipeline system have squeezed fuel supply to natural gas-fired power plants and contributed to extraordinarily high LMPs (typically when GMP loads were higher than normal). Sharp, temporary declines in hourly LMPs have also been observed, particularly since the implementation of ISO-NE's DNE (Do Not Exceed)[7] dispatch framework in 2016. The net impact of unusually high or low LMPs on GMP's power costs varies (either condition

[6] GMP's portfolio contains substantial long-term power sources, and our strategy is to purchase most remaining monthly needs through fixed-price forward bilateral contracts of shorter terms. This approach greatly limits GMP's net reliance on spot market purchases and sales, and smooths year-to-year retail rate changes by limiting exposure to longer-term trends in regional market prices. GMP utilizes the spot market primarily to balance daily and hourly fluctuations in customer load and generator output.

[7] Under the DNE framework, essentially all major generating plants (including renewables that rely on intermittent wind and stream flows) must offer their output at an associated price. When generation in the region needs to be dispatched downward, this is being done based substantially on price, sometimes resulting in near-zero or negative LMPs as generating plants of all types compete to generate.

can potentially increase GMP's net power costs) depending on hourly load levels and output of GMP generation sources. But it is safe to say that fluctuations in LMPs, combined with fluctuations in the output of GMP's generating plants and load requirements, can easily produce variances of hundreds of thousands of dollars or more in GMP's net power costs quarterly.[8] Such outcomes tend to average out over the long-term, but they can produce meaningful variances in net power costs for a given quarter or year.

- GMP's obligations in the FCM are based on GMP's wholesale load at the time of ISO-NE's annual hourly peak load (which occurs on hot summer afternoons). GMP's wholesale load, in turn, depends on the power consumption of GMP customers (plus distribution system losses), less the coincident output of distributed generating plants that operate as load reducers. With the deployment of distributed solar capacity on GMP's system exceeding 200 MW, a variation from normal of solar output at the time of the ISO-NE peak could easily increase or decrease GMP's allocation of FCM obligations by 20 MW or more, which represents a net power cost impact of $2 million or more. While fluctuations in the peak coincidence of solar output will tend to average out over multiple years, they can produce meaningful

[8] As one example, in a single week, if actual LMPs turn out $30/MWh higher than normal when the average production from GMP's power sources was 20 MW below normal (e.g., due to a generating unit outage, or to low wind or streamflow conditions), GMP's net power costs could increase by $100,000 or more. Even more extreme variances (in percentage terms) can occur on a daily or hourly basis, increasing the range of potential net power cost outcomes.

variances in GMP's net power costs within a given year.

- Consistent with Vermont energy policy, GMP's energy portfolio relies much more heavily today on renewable sources than it did when the regulation plan framework was designed a decade ago. Most important, GMP's next rate year power supply will include about 200 MW of solar capacity (from net-metering, PPAs, and lesser amounts of GMP sponsored plants), 167 MW of wind power from plants that did not exist in 2006 and will serve to reduce GMP's load requirements. These sources stabilize GMP's power costs over long periods of time. Owning renewable plants or purchasing their output on an output-contingent basis is often the lowest cost way to procure renewable power. Short-term fluctuations in the output of these intermittent sources can, however, lead to meaningful shorter-term fluctuations in GMP's net power costs and (in the case of net-metered solar) retail electricity sales. For example, a 20% variance in the annual output of GMP's fleet of owned hydro plants relative to long-term averages (a substantial change, but well within the historical range of variance) would represent a loss or gain of roughly 75,000 MWh. At an illustrative energy market price of $40/MWh, this would result in an increase or decrease of roughly $3 million in GMP's net power costs.[9]
- The rate of deployment of net-metering capacity was not a significant factor when the Power Supply Adjustor was developed, but today variances in that

[9] Similarly, fluctuations in the actual output of GMP's wind plants around long-term averages could change GMP's net power costs by several million dollars, based on the value of the energy and RECs that they produce.

rate (along with the actual output of net-metered projects) can contribute to substantial short-term variances in GMP's net power costs.

In summary, in the context of current power markets, GMP's power supply portfolio and Vermont's renewable power requirements, a Power Supply Adjustor continues to be an appropriate and important component of GMP's regulatory framework.

Q13. What features of the current Power Supply Adjustor does GMP propose to retain?

A13. We propose that all variances in Component A costs be returned to customers, as is done under GMP's current plan. As discussed above, the potential for substantial variances in Component A costs (such as transmission by others, and net Forward Capacity Market costs) has increased over time, creating the potential for substantial short-term shortfalls or windfalls for GMP and customers. It makes more sense than ever for costs like these, which are largely not within GMP's control (particularly within the time frame of a rate year or quarter), to be trued up in full.

With respect to Component B, we propose to maintain the fundamental structure of GMP's current plan—under which variances in these costs are returned to or collected from customers with GMP absorbing a meaningful portion of these variances, but we propose some refinements that we believe will significantly improve the Component B mechanism.

Q14. Does GMP propose to refine the structure of Component B of the Power Supply Adjustor?

A14. Yes. We propose to simplify the calculation of Component B by comparing GMP's actual quarterly Component B costs per kWh of retail sales to the benchmark Component B costs per kWh that are reflected in current retail rates for that quarter. To the extent that GMP's actual costs per kWh increase or decrease, this change (applied to the actual retail sales for the quarter) will define the portion of variance that will be absorbed by GMP as described above.[10] This approach complements the Retail Revenue Adjustor and offers computational simplicity, while also strengthening the cost containment incentive of the current plan design. Our proposed approach will also be more transparent—reflecting the extent to which GMP's average Component B costs per kWh during each quarter varied from the benchmark figure that is reflected in rates. I expect that for GMP's regulators and other stakeholders, as well as for GMP colleagues, this mechanism and its results will be easier to understand, more transparent, and more intuitive than the current Component B calculation—which entails a Volume Variance Adjustment to compensate for changes in retail sales volumes, and produces a variance result that reflects the combined effects of cost changes and retail sales changes.

[10] For example, suppose that GMP's actual Component B costs in a quarter were $50 million, with retail sales of 1 billion kWh, for an average of $.0500/kWh. If the benchmark Component B costs for the quarter were $.0495/kWh, then this would represent a price variance of $.005/kWh, or $500,000. This variance in costs per kWh is the amount that would be subject to sharing with customers, after application of the Efficiency Band.

Q15. Does GMP propose to change the size of the Efficiency Band (i.e., the Component B dead band range)?

A15. Yes, we propose a quarterly Efficiency Band of $150,000, compared to $307,000 in GMP's current plan. This change is important and appropriate for a few reasons. First, under GMP's proposed MYRP the Efficiency Band on Component B will apply only to changes in GMP's net power costs—without the influence of the Volume Variance, which under the current plan sometimes cushions or offsets the effect of power cost changes. Without the Volume Variance Adjustment in Component B, the Efficiency Band mechanism could shift significant financial risk to GMP compared to our current plan design, if the Efficiency Band were not reduced. Second, the recent federal tax reform—which lowered marginal corporate tax rates significantly—will magnify the effect of variances in power supply expenses on GMP's after-tax net income,[11] increasing the effective incentive for cost management. Finally, it is important to keep in mind that under our new design, GMP's exposure to Component B cost variances is not limited to the Efficiency Band range, because GMP will absorb increases in actual power cost per kWh up to the Efficiency Band amount and still absorb 10 percent of all variances in costs per kWh outside of that band. A significant portion of GMP's Component B

[11] As the Commission is aware, the savings in corporate taxes from the federal tax reform are being fully passed through to customers through GMP's retail rates. My point here is simply that on the margin, whenever GMP absorbs a variance (an increase or decrease) in net Component B power costs, the after-tax financial impact of that variance on GMP will be much greater (this difference is estimated at over 20 percent) based on the new, lower federal tax rate than it would have been during GMP's current plan. Directionally, the reduction in tax rate supports a reduction in the size of the Efficiency Band.

exposure has historically come from variances outside the Efficiency Band, and it is reasonable to expect that this will remain so in the future.

Q16. Will the proposed Retail Revenue Adjustor and Power Supply Adjustor calculations show more transparently what is driving collections/returns from customers?

A16. Yes. Under GMP's current plan, the Volume Variance Adjustment is embedded within Component B of the Power Supply Adjustment, along with variances in the range of Component B costs. In addition, while the Volume Variance Adjustment is a helpful concept, its functioning (i.e., the calculations that determine whether funds should be returned or collected) may not be intuitive for those who do not regularly work with the calculations. For these reasons, it is not always apparent which factors (e.g., variances in GMP power costs versus variances in retail sales volumes) are driving Component B collections.

In contrast, our proposed Retail Revenue Adjustor in the MYRP is more straightforward. It tracks variances in retail sales separately from power costs, and results in more complete decoupling of GMP profitability from sales volumes. This aligns well with the modern regulatory trend of ensuring utilities' financial performance is not harmed (or enhanced) by selling less (or more) electricity to customers and encourages rigorous management of power costs where we are able—and we think it makes sense at a time in the industry when there is rapid technological change, the deployment of customer-site generation and storage is increasing, and retail sales in Vermont are flat or declining.

Q17. Can you please explain how the Efficiency Band and Power Supply components will work together each quarter, and ultimately flow to GMP customers?

A17. First, the Power Supply Adjustor will be calculated based on comparisons of GMP's actual net Component A and B costs in the quarter compared to those that are reflected in current retail rates. As I discussed above, the Power Supply Adjustor will be designed to return to (or collect from) all variances in Component A costs, and all Component B variances with the exception that GMP will absorb all variances in costs per kWh within the Efficiency Band, and 10 percent of costs per kWh variances outside of the Efficiency Band.

Second, the Retail Revenue Adjustor will be calculated based on a comparison of GMP's actual retail revenues in the quarter to the revenues that were forecast for the same quarter during the derivation of GMP's current retail rates. The Retail Revenue Adjustor is intended to return to (or collect from) customers all such variances.

Finally, we propose to combine the results of these two calculations (that is, the dollar amounts that are identified for return/collection) into a single regulatory asset or liability. We propose that this amount be returned to (or collected from) customers in the second subsequent quarter, through a single line item adjustment (in cents per kWh) to be applied to retail bills for all customer classes (except for the Street Light class, as under GMP's current plan).[12]

[12] We propose to continue to exempt the Street Light class because it does not charge customers on a kWh basis.

Q18. Have you developed a numerical example to help illustrate the mechanics of how the Power Supply Adjustor and Retail Revenue Adjustor would work?

A18. Yes. **Exhibit GMP-DCS-1** illustrates how one set of hypothetical outcomes for retail sales and net power and transmission costs (Components A and B) for a quarter would be applied to obtain the Power Supply Adjustor and Retail Revenue Adjustors, and ultimately the adjustor (including both of these components) that would be applied to customers' bills. In the hypothetical example, actual retail sales turn out somewhat below forecast; this results in a collection balance for the Retail Revenue Adjustor, and also causes Power Supply costs to drop by $300,000. In the example, Component A costs turn out below benchmark, and GMP absorbs a positive cost variance for Component B (because GMP's actual Component B cost/kWh turns out somewhat higher than GMP's expected costs as reflected in the benchmark figure for the same quarter), resulting in a return balance for the Power Supply Adjustor. The net result for this example is a return balance of about $2 million, and a Power Supply and Retail Revenue Adjustor that would reduce customer bills by about 0.2 cents/kWh during the collection quarter. Customers benefit by GMP absorbing some power costs (because actual costs/kWh exceeded the benchmarked power costs for the quarter), even though overall power costs (and sales) were lower.

Q19. Does the Power Supply Adjustor support the deployment of renewable resources in a manner that is consistent with achievement of Vermont renewable requirements?

A19. Yes, the Power Supply Adjustor will continue to be supportive of meeting the RES requirements in a low-cost way. The primary renewable resources available to GMP are intermittent, with their output fluctuating based on available hydroelectric, wind, and solar energy. As a result, while deployment of these renewables stabilizes net power costs on a long-term basis (due to the absence of fuel expense), it can also entail a meaningful level of variances in net power costs in the short-term. In the absence of a Power Supply Adjustor, such variances in net power costs would significantly impact GMP's earnings, creating a disincentive for aggressive deployment of renewable resources and a potential challenge to achieving Vermont's RES requirements affordably.

The Power Supply Adjustor has supported GMP's increasing reliance on intermittent renewable resources, by sharing the resulting short-term variances in net power costs (including both increases and decreases) between GMP and customers, rather than having all the variances between rate cases flow only to GMP. Looking forward, this sharing will maintain GMP's flexibility to procure power (particularly from renewable sources) in the lowest cost long-term manner—including, for example, the option to rely on plant-contingent output from additional PPAs and GMP-owned sources. This flexibility enabled by the Power Supply Adjustor will support the achievement of GMP's RES Tier 1 and 2 requirements. More broadly, the Power Supply Adjustor will limit the need to incur additional costs to achieve additional short-term stability in power

and transmission costs in other ways—for example, by purchasing requirements service power supply contracts, or purchasing output insurance for renewable plants.

Q20. What are some of the other advantages of the Power Supply Adjustor and Retail Revenue Adjustor that GMP is proposing, relative to traditional ratemaking?

A20. Under traditional rate making if actual power costs turn out lower than the forecast reflected in rates the utility gets a windfall, and in some instances could stay out of rate review for years taking full advantage of the benefits of unacknowledged excess revenue. If actual power costs turn out higher than the forecast reflected in rates, the utility absorbs the additional cost. In addition, sustained changes in power costs (up or down) are not reflected in rates until a utility files a rate case. While this provides a direct incentive for the utility to manage and minimize power costs between rate cases, it features some obvious and important drawbacks.

GMP's actual net power costs could differ significantly from the amounts reflected in the company's retail rates—for example, when power market prices or transmission expenses moved significantly up or down, or if production from GMP generating sources turned out significantly higher or lower than normal. Between rate cases, if extraordinary power costs (or extraordinary savings) occurred which were not reflected in rates, GMP's only opportunity to recover/return them would typically be to request an accounting order, so that substantial costs/savings could be deferred and reflected in a future rate proceeding. The accounting order process entails more uncertainty and regulatory process than the Power Supply Adjustor and is not well-suited

to address the types of outcomes (e.g., multiple power cost variances of different magnitudes—which may combine to produce a large total variance or offset each other to produce a small net variance) that often occur within a given quarter or year. The Power Supply Adjustor structure addresses this range of potential outcomes as a matter of course, while maintaining a meaningful incentive for GMP to keep power costs as low as is practical.

Aside from major variances between actual power costs and those collected in rates—essentially representing shortfalls or windfalls for GMP and its customers—being undesirable in principle, this type of volatility inherent in traditional regulation could be detrimental to GMP's credit rating, with adverse consequences to our customers, as explained further by Ms. Powell.

Q21. How would GMP and customers have fared historically under the Power Supply Adjustor and Retail Sales Adjustor you are presenting in this MYRP, compared to the current Power Supply Adjustor?

A21. A review of actual Power Supply Adjustor results for the past five years indicates that the cumulative results for GMP and our customers would have been very similar, with less volatility from year to year. While the historical results by definition reflect a finite sample period that may not reflect the range of potential future outcomes, this result supports our view that the proposed design will be a significant improvement over the status quo for both customers and GMP, without a large shift of value between GMP and our customers.

Q22. Why did GMP choose these methodologies for power supply costs and retail revenue, compared to any others that it may have selected?

A22. We started our consideration of the new regulation plan by considering the results for customers and for the company under our existing and prior regulation plans. As discussed elsewhere in my testimony, GMP believes that the current plan and associated processes work well in many ways, although they have some disadvantages (in terms of complexity, transparency, and frequency of returns/collections) that can and should be improved within the current energy landscape. The following are alternative design choices or features that GMP considered during its evaluation:

- Based in part on informal feedback from the Department, we considered whether O&M expenses for GMP-owned generating plants (presently part of Component B) should be removed from the Power Supply Adjustor. In my view, it is appropriate for generation O&M to remain in Component B, so that O&M expenses for these plants (e.g., hydroelectric, wind, combustion turbine and diesel) and the generation they help to support are in the same category—encouraging GMP to perform repairs quickly and cost-effectively, to maximize output which serves to lower Component B costs.[13]
- We considered removing some items—in particular, PPAs that feature fixed prices and delivery volumes—from the Power Supply Adjustor, because they

[13] If O&M expenses for owned plants were outside of the Power Supply Adjustor, an odd incentive could be created for GMP to not incur some expenses (e.g., for weekend/overtime call-outs of GMP personnel, or other measures) that would maximize plant availability and market revenue because those expenses would accrue fully to GMP, while the associated benefits would flow primarily to customers through Component B.

may be less likely to contribute to variances except in relatively rare events such as a default of the counterparty or renegotiation of the PPA during its term. We do not see a clear benefit from removing individual PPAs (or this group categorically) from the Power Supply Adjustor, and there would be some significant drawbacks. For example, removing selected existing PPAs from the Power Supply Adjustor while other substitute sources (e.g., ISO-NE spot market purchases/sales) remain in the Power Supply Adjustor would create potential for unanticipated financial shifts between GMP and customers—for example, in the (hopefully rare) event of a default, or an error in the volumes or prices of PPAs upon which the benchmark power costs are based. Removing fixed PPAs categorically is undesirable because it would reduce GMP's flexibility in making bilateral transactions during the rate period and, in my view, could make the design more subject to "gaming."

- We considered, but ultimately rejected as overly complex, even more refined versions of revenue decoupling. The proposed Power Supply Adjustor and Retail Revenue Adjustor will significantly increase the decoupling of GMP profitability from retail sales volumes. These mechanisms will not accomplish a perfect decoupling, however, because changes in retail sales volumes can have some remaining impacts on GMP's short-term profitability through Component B. These types of occurrences should offset to some degree over time, but probably not entirely. Perfect decoupling would likely require estimating the incremental power supply costs associated with

variances in retail sales (potentially based on actual LMPs during particular months or even days) and isolating that change from other changes in power supply and transmission costs. This could greatly increase the complexity of the Power Supply Adjustor, so GMP is not proposing such a refinement at this time.

- We also considered the appropriate frequency and duration for collection of adjustor balances related to power costs and retail revenues. We observed that the present practice of measuring Power Supply Adjustor variances quarterly but only returning/collecting them annually results in a significant lag between when costs are incurred and when they are experienced by customers. In addition, if several adverse Power Supply Adjustor variances occur in the same year, they can accumulate into balances that meaningfully add to retail rate pressure that customers experience in subsequent years. GMP believes more frequent collection is desirable, and while monthly would perhaps be ideal, quarterly seems to strike the right balance between administrative effort and timely collection while creating only small variances in customers' bills.
- Finally, we considered the method by which balances from the Power Supply Adjustor and Retail Revenue Adjustors should be collected from or returned to customers. The present method (applying a uniform adjustment, in cents/kWh, to all customers) remains reasonable in light of the large magnitude of GMP's net energy costs. We recommend that it continue to be used, although arguments could be made in favor of collection/returns via

other methods (e.g., as a uniform percent of customers' monthly bills, rather than their energy consumption).

In the end, we have proposed a revised design that works well for customers, improving upon the current design in some key ways that are responsive to the transformation occurring in the energy space while increasing transparency, reducing complexity (by eliminating the volume adjustor in favor of a true retail sales true-up), and reducing volatility year to year while collections and returning balances more promptly. This seems particularly important in an environment in which the technology available to customers is changing, and electricity sales are flat or declining.

Q23. Are there any other considerations that you'd like to mention in support of the current and proposed structure of the Power Supply Adjustor?

A23. Yes, GMP's net power and transmission costs are determined based on hundreds, if not thousands, of outcomes for factors such as the volume and timing of generation from various sources, the market revenues that those sources will provide, etc. The structure of the Power Supply Adjustor—in which variances in power and transmission costs are shared or passed through to customers—protects against the potential for substantial unanticipated variances that could result from factors like an error or oversight in the derivation of benchmark costs, or retroactive true-ups (positive or negative) that GMP may receive as the result of regulatory outcomes or market corrections from past periods. I am referring here to outcomes which were not anticipated at the time GMP's benchmark costs and retail rates were developed and may not be associated with GMP's operations

during the rate period. It does not seem appropriate for GMP or customers to experience large windfalls or large costs based on these types of events, and the Power Supply Adjustor structure protects against such potential outcomes.

III. ROLE OF FORECASTING AND FORECASTING METHODOLOGY

Q24. Please explain the role forecasting will play in the MYRP.

A24. Combined, power and transmission costs are on the order of $400 million per year, and together represent by far the largest components of GMP's total cost of service. Retail revenue, from sales of electricity to our customers, is on the order of $600 million per year. Under the MYRP, GMP will submit forecasts of these costs and expected sales each year ahead of the start of the rate year. Base rates will then be adjusted at the start of each fiscal year to reflect these updated forecasts.

Q25. Is this step of annually refreshing the retail sales and net power and transmission costs an important feature of the MYRP?

A25. Yes. Both retail sales and net power costs are large enough that expectations can often change significantly (by many millions of dollars per year)[14] from year to year based on new information that becomes available during the year. For example, expectations for future retail sales can change based on changes in economic activity and end use efficiency trends, or the closure of one or more significant commercial customers. If

[14] Please note that the changes in expectations discussed in this response are forward-looking, and distinct from the types of short-term fluctuations that I discussed earlier (e.g., high/low hydro output, short-term weather and peak coincidence of distributed generation) that often drive quarterly variances in power and transmission costs.

retail sales volumes are not updated to reflect a reasonable current forecast, then GMP's retail rates could substantially over- or under-collect annual revenue requirements.

Significant changes in forecasted power costs can be driven by changes in the pace of net-metering deployment; new results from ISO-NE's annual Forward Capacity Auction (or GMP's share of regional capacity obligations), changes in the pricing or volumes under existing PPAs, or changes in forecasted retail sales. If benchmark power costs for a given year are not updated to reflect reasonably known and quantifiable changes, then GMP's actual power costs for that year are much more likely to differ substantially from those reflected in rates,[15] requiring those large differences to be returned/collected later through the Power Supply Adjustor. Annual updates of power and transmission costs will ensure that reasonably anticipated costs will be collected from customers in a timely way through base rates and limit the need to make large returns/collections later through the Power Supply Adjustor. Annual updating will also provide customers with greater transparency about GMP's cost of providing power than would happen without annual adjustments.

Finally, annual updating of benchmark power costs is consistent with maintaining an appropriate incentive to effectively manage power costs. If benchmark Component B costs reasonably reflect current expectations, then GMP has meaningful potential financial exposure at stake—from the top to the bottom of the Efficiency Band range,

[15] An example of this was the "stub" period in late 2017 when GMP rates and benchmark costs were not updated. In this period FCM price changes and other factors produced a large power cost variance relative to the stale benchmark costs.

plus 10 percent of all variances outside of that band—based on decisions it makes to manage Component B costs.[16] In contrast, if benchmark Component B costs were allowed to become stale and no longer reflect reasonably current expectations, it could become evident from the start of many quarters that GMP's actual costs will fall well above or below the benchmark, irrespective of the management decisions GMP makes. This outcome would be undesirable because it would reduce the practical range of financial outcomes for GMP, reducing the impact to GMP from keeping its costs as low as possible.

Q26. How does GMP currently forecast power and transmission costs and revenues?

A26. GMP uses Itron, Inc. ("Itron")—an expert independent consultant with longstanding expertise in the field of energy forecasting in Vermont and across the country—to develop forecasted retail sales volumes and revenues. GMP uses these forecasted retail sales volumes (along with estimated distribution system losses) to determine corresponding levels of power supply and transmission costs. GMP has used Itron to forecast rate period loads for its regulation plan base rate filings since 2007.

The sales forecast is based on historical billing data and statistical models that relate specific end-use categories (e.g. residential electric heating, residential water heating, residential non-heating, etc.) to weather, economics, saturation/efficiencies of

[16] In fact, if the benchmark power costs are reasonably set, in the course of a quarter GMP often will not know where its actual costs are likely to turn out relative to the Efficiency Band until that quarter is over, so that the full potential range is in play as an incentive for good decision-making.

various end-uses, and trends in electricity prices. Sales projections are made on a weather-normalized basis. The models incorporate various forecasted economic data, including household income, people per household, and non-manufacturing output, based in large part on third-party sources. Inputs concerning energy usage patterns are based upon Energy Information Administration ("EIA") data, Economy.com macroeconomic data, and Weather.com climate information for the Company's service area. Itron also considers the influence of programmatic energy efficiency. GMP provides some local information or customer-specific information that Itron would not otherwise have—for example, known significant changes to customer loads due to factors such as business closures or additions, or discrete operational changes. GMP also provides a forecast of the loss of retail sales due to increasing volumes of net-metered generation (based on trends in observed net-metered project installations and applications).

Itron applies GMP's retail rate tariffs to the forecasted sales volumes by customer class, to estimate the retail revenue that would be collected under current rates. GMP staff then review the sales and revenue forecast for accuracy and provide questions and/or feedback to Itron where warranted. Itron then decides whether and how to adjust its results, to arrive at the forecast that is subsequently used for developing expected power supply requirements and for expected retail sales revenue at current rates for GMP's cost of service.

Q27. How has ITRON's forecast accuracy performed versus actual results?

A27. Overall the forecast has performed reasonably well. Over the past 10 years GMP's actual annual sales (weather-adjusted) have typically turned out within one percent of the prior year's Itron forecast and have averaged about 0.9 percent below forecast. Much of the under-forecast is attributable to factors that are fairly well understood—most notably the national recession and the loss of a significant industrial customer due to a fire in 2008, and economic growth in Vermont turning out consistently lower than was forecasted by third parties.

Some of the larger negative variances in GMP sales were observed in the past few years. This is due in significant part to the rapid expansion of net-metering exceeding GMP forecasts, along with other load-reducing measures. The experience over the past few years has reinforced the value of incorporating local and customer-specific influences into the forecast (where these factors are sufficiently known and measurable), as well as the value of refreshing GMP's retail rates regularly to reflect current expectations for retail sales volumes and associated power costs to serve those sales.

Q28. Does GMP have a recent retail sales forecast that covers the period of the MYRP?

A28. Yes. While GMP expects to refresh its forecast annually under the process described further below, we have received a forecast from ITRON that was prepared in March, 2018 and covers the next 10 years in order to have some understanding of the costs and sales we may expect. **Exhibit GMP-DS-2** is a report presenting Itron's forecast of retail

sales through 2028. This report provides a snapshot of what we may expect in power costs and in revenue over this time period.

Q29. Please summarize GMP's anticipated methodology for forecasting GMP's net power supply costs under the MYRP.

A29. We anticipate developing GMP's best current estimate of net power costs based on a review of all of the major components of those power costs—the same approach we have used to develop base rate filings under GMP's current Plan. Most of the volumes and prices that determine GMP's projected net power supply costs for each year will reflect values from the most recent years, adjusted to reflect known or reasonably anticipated changes. For the substantial fraction of renewable power sources that depend on water, wind, or sun for their output, long-term average values (or forecasts of the average, for newer sources) will be used. For GMP, the most prominent categories of adjustments for power costs are typically:

- Adjustment of purchased power expenses to reflect the expiration of existing PPAs or the addition of new sources (e.g., new Standard Offer projects, new PPAs negotiated by GMP).
- Adjustment of market purchases and sales to reflect changes in GMP's forecasted load requirements and the forecasted output of power sources that supply GMP, along with changes in the wholesale market price outlook for energy, capacity, fuel, or renewable energy certificates.

- Adjustment of the price of existing power purchases to reflect contractually prescribed changes in PPA pricing (including, for example, HQUS, NextEra Seabrook, Granite Reliable Wind, and VEPPI).
- Adjustment of energy output from intermittent renewable sources to reflect normalized or long-term average volumes.
- Updating of net REC revenues to reflect anticipated volumes of renewable generation from GMP's plants and PPAs, along with forward sales of RECs that GMP made in advance for deliveries during the rate period.
- Estimated costs associated with compliance with RES Tiers 1, 2, and 3 based on prescribed annual increases in these requirements, along with changes in the resources available to meet the requirements.
- Adjustment of expenses for transmission by others to reflect available projections from VELCO[17] and ISO-NE, along with estimated peak loads that upon which these expenses are allocated.
- Adjustments of O&M expenses for GMP's wholly owned generating units to reflect the most recent forecasts of those expenses. O&M expenses for jointly owned plants generally are based on 5-year averages.

[17] References to VELCO costs in this testimony also include costs associated with VELCO's affiliate Vermont Transco, LLC which holds most bulk transmission assets in Vermont.

Q30. Do you anticipate any changes in the tools that GMP uses to estimate its net power costs that it has used in recent years?

A30. Yes, GMP plans to use a regional market simulation model to aid in the estimation of our net energy costs for Fiscal Year 2020. GMP presently uses a spreadsheet-based model to summarize the generation from GMP's various power sources during the peak and off-peak hours of each month (24 periods per year) and compare that generation to the load requirements (which include losses on the distribution system) to serve GMP's retail customers during those same periods. For each period (e.g., January peak, June off-peak, etc.) in which generation is projected to be less/more than GMP's load requirements, we assume that GMP will purchase/sell the difference at an energy market price (based on forward market price indications at the time the analysis is performed) that reflects the average market price in that period of delivery.

The net energy costs estimated by the monthly peak/off-peak model provide a reasonably close approximation of GMP's actual net energy costs, but they need to be adjusted to include a "balancing" factor based on historical data, to reflect the fact that GMP's load requirements and generation sources are actually priced in the ISO-NE market on an hourly basis (and through both day-ahead and real time transactions). The balancing factor addresses the fact that GMP's net energy costs tend to be somewhat higher than indicated by the average loads and average prices that populate GMP's 24 period/year energy model. This is primarily because energy market prices in New England tend to vary with load levels—tending to be higher than the monthly average on

days and hours when GMP needs to purchase the most energy, and lower than average on days when GMP needs to purchase less.

While GMP's current modeling method yields reasonable results in terms of GMP's total net energy costs, it has some limitations—including the fact that it does not dynamically simulate the hourly dispatch of the regional power market and requires the application of a balancing factor based on an off-line analysis of historical volume and market price data. The Department has noted that a commercially available simulation model may improve the estimation of GMP's net power costs in the context of setting benchmark power costs for retail rates (and for other purposes). GMP has agreed to explore the benefits and costs of such models in consultation with Department staff through the use of an hourly dispatch model when forecasting Fiscal Year 2020.

Q31. Do you anticipate using a market simulation model to support the estimation of GMP's power costs for future years?

A31. It will depend upon whether the exercise yields helpful additional information cost-effectively for Fiscal Year 2020. GMP has begun reaching out to vendors and users of market simulation models to assess the potential benefits that such models could provide to GMP and our customers (not just in the context of rate setting, but also to inform commercial decisions and planning), along with the significant costs (e.g., lease fees, staff time for model setup and operation) that would be required to obtain those benefits, and the potential limitations of such models. It is our goal that the representation of GMP's portfolio of resources and load in a regional market simulation model will be

completed in time to share with the Department during this proceeding and to inform GMP's development of Fiscal Year 2020 rate adjustments under the terms of this plan in the Spring of 2019 (ahead of the October 1, 2019 start to the rate year as proposed).

Q32. When will GMP submit the annual forecasts of retail sales and power costs each year?

GMP proposes to submit a draft filing of updated annual forecasts for power supply costs and retail sales promptly upon completion and no later than 30 days prior to filing it with the Commission, in order to allow time for the DPS to review the forecast before GMP formally files on July 1, and well before the DPS must provide its recommendation to the PUC prior to rates going into effect October 1 each year.

IV. APPLICATION AND FREQUENCY OF THE RETAIL REVENUE AND POWER SUPPLY ADJUSTORS

Q33. Will GMP treat different customer classes differently with respect to the Retail Revenue Adjustor and Power Supply Adjustor under the MYRP?

A32. GMP proposes to include all classes of customers in these adjustors (with the exception of Street Lighting, as previously indicated), though we understand some states that have moved to exempt larger C&I or transmission class customers from the decoupling. The theory seems to be that those customers are both more price sensitive (because they are able to move or close down a factory if prices climb) and less able to take advantage of traditional efficiency and standard demand response programs than other customers (because they require custom solutions that match their operations and requirements for

return on investment), and we have heard from our transmission class customer, GlobalFoundries, that it does not believe these adjustors (positive or negative) should apply to it.

Q34. Why is GMP proposing to make adjustor filings on a quarterly, rather than an annual, basis?

A33. More frequent rate adjustments provide customers with more current feedback as prices change up or down, because there will be more current collection or return. This is also positive for GMP because it means we have a much quicker analysis of results and collections or returns based upon them, compared to the significant lag (roughly a year on average, but longer for variances that occur earlier in the year) that occurs under the current regulation plan. For context, it appears that the trend in these adjustments elsewhere is toward more frequency; as Mary Powell notes in her testimony GMP believes that it is appropriate to consider moving to even more frequent adjustments for customers over time, potentially to a monthly bill adjustment which would return potential savings to customers as quickly as possible and collect any required increases in a timely way.

We have reviewed what the quarterly variances would have looked like under our current Power Supply Adjustor if we had adjusted customer rates to collect or return the adjustor balances on a quarterly basis (rather than accumulating the quarterly balances for collection the following year). Quarterly collection of the Power Supply Adjustor variances (resulting in collections and returns that are reflective of the cost fluctuations

that GMP actually experiences) would have yielded relatively moderate bill impacts for customers—a mix of quarterly collections and returns, typically representing bill impacts of a few percent or less, and only rarely 4 percent or higher, and lasting for only one quarter. This is in lieu of the smaller—but much more lagged and much longer lasting—pattern of annual collections and returns under GMP's current plan.

GMP proposes to make this quarter-to-quarter adjustment on a customer bill as a separate line item for "Quarterly Power Cost and Sales True Up" so that the collections or returns can be clearly seen and separated from yearly base rate impacts.

V. SECTION 218D CRITERIA

Q35. In your view, does the MYRP (including the Retail Revenue and Power Supply Adjustors) meet the criteria for alternative regulatory mechanisms in 30 V.S.A. § 218d?

A34. Yes. The Commission has previously approved a version of the Power Supply Adjustor with a Volume Variance mechanism under § 218d in Docket 8191. Since that proceeding in 2014, the performance of the Power Supply Adjustor has further bolstered my conclusion that it is consistent with the requirements of § 218d. That will be even more true with the updated MYRP design that includes a separate Retail Revenue Adjustor for more complete decoupling (i.e., further reducing the link between GMP's profitability and the volume of electricity sales). As discussed above, the proposed Power Supply Adjustor and Retail Revenue Adjustor will also more transparently indicate variances in GMP's underlying power costs, separate from the impact of retail sales variances.

Mr. Ryan's testimony addresses each of the § 218d criteria and explains how the combined function of the provisions requested meet the requirements of this section.

Q36. In what ways do the aspects of the MYRP that you have covered, including the Retail Revenue and Power Supply Adjustors, meet the requirements of § 218d?

A35. First, the Power Supply Adjustor provides a direct mechanism to support GMP managing its actual power costs (because GMP directly benefits by keeping costs down or is penalized for missing the benchmark) as required under § 218d(a)(1). Specifically, GMP has meaningful funds at risk when its actual quarterly power costs vary from benchmark figures. GMP absorbs all variances in Component B power costs per kWh within a prescribed range, and 10 percent of such variances outside of that range. In all conditions, GMP stands to benefit by finding ways to lower Component B costs. The design of the Retail Revenue Adjustor aligns GMP to providing least cost service, including using resources that would reduce retail electricity sales or produce intermittently, even more effectively than the current plan structure does.

Both the Retail Revenue Adjustor and the Power Supply Adjustor provide for just and reasonable rates for service to GMP customers, consistent with § 218d(a)(2). In combination with the Efficiency Band, customers "win when GMP wins." Since GMP is incented to reduce costs without respect to sales, to the extent GMP succeeds, customers see lower bills. Customers only see higher bills associated with Component B costs after GMP absorbs all of the quarterly variance within the Efficiency Band calculation—and GMP continues to absorb a portion of any increases beyond that band.

The Retail Revenue Adjustor also facilitates decoupling while still providing a reasonable opportunity for GMP to earn a fair return under sound and economical management. As I discussed earlier, eliminating the Volume Variance mechanism more effectively decouples GMP's profitability from retail sales volumes. The re-setting of GMP's retail rates each year based on forecasted sales volumes also greatly reduces this link, by preventing reductions in sales from accumulating over multiple years (as could occur under traditional regulation). As I see it, this feature effectively decouples GMP's earnings in a long-term sense—where much of the potential dollars are at stake. At the same time, the premise of the Power Supply Adjustor is to reduce financial impacts related to large variances of generally uncontrollable costs, while continuing to provide incentives for sound management of assets and operations. The proposed structure of the revised Power Supply Adjustor—in which variances in GMP's Component B costs and retail sales are calculated in separate steps—will also show more transparently the extent to which returns/collections from customers are related to GMP's actual costs turning out lower/higher than forecasted (as opposed to variances in retail sales volumes).

Furthermore, the design of the Power Supply Adjustor ensures that any resulting savings are shared with customers. Specifically, GMP customers receive all savings achieved for certain expenses (Component A) and 90% of any net Component B cost savings—those savings that exist after GMP achieves and retains up to $150,000 in savings in costs per kWh each quarterly measurement period. These savings (or costs, when that is the result) are returned to customers each quarter.

In this way, the MYRP is consistent with the criteria outlined in § 218d, particularly (a)(1), (2), (4), (7), (8) and (b). Please see Ms. Powell's testimony for additional detail and discussion of how the MYRP as a whole meets the § 218d criteria.

Q37. Does that conclude your testimony at this time?

A36. Yes, it does.