STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Petition of Green Mountain Power Corporation for approval of its new Multi-Year Regulation Plan pursuant to 30 V.S.A. Sections 108, 209, 218, and 218d	)))	Case No. 25-____-PET

PREFILED DIRECT TESTIMONY OF MICHAEL BURKE ON BEHALF OF GREEN MOUNTAIN POWER

August 29, 2025

Summary of Testimony

Mr. Burke's testimony outlines GMP's proposal for our next Multi-Year Regulation Plan to serve customers starting October 1, 2026 ("New Plan"). He introduces other GMP witnesses supporting the New Plan. He also explains the context for the New Plan, how the proposal improves upon the regulation plan now in effect, and how the New Plan benefits GMP's customers. Finally, he covers specific elements of the New Plan, including: how GMP will handle routine capital plant additions; how GMP proposes to treat resilience project planning and execution; and how GMP has addressed treatment of storm costs in the New Plan, among other items.

Exhibit List

GMP-MB-1 DPS-GMP MOU Exhibit 2 - Capital Documentation Standards

TABLE OF CONTENTS

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ON BEHALF OF GREEN MOUNTAIN POWER

I. Introduction

Q1. Please state your name and occupation.

A1. My name is Michael Burke. I am the Vice President, Operations for Green Mountain Power ("GMP").

Q2. Please describe your background.

A2. I have worked for GMP since 1997, serving in many roles including customer service, meter service, and engineering design prior to my current role leading field operations. Since 2009, I have served as the field operations leader and now Vice President, overseeing the planning and execution of all transmission and distribution ("T&D") field activities, including all restoration efforts from severe weather events. I received a Business Management degree from Champlain College, completed the Vermont Department of Labor Lineman Apprenticeship three-year course, and have taken numerous engineering and operations courses.

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

A3. Yes. I was a witness in GMP's broadband deployment rider petition and tariff, Case Nos. 24-0511-PET & 24-0509-TF; GMP's Zero Outages Initiative (ZOI) proceeding, Case No. 23-3501-PET; GMP's currently in effect regulation plan (the "Current Plan"), Case No. 21-3707; and GMP's Climate Plan proceeding, Case No. 20-0276-PET. Although not

formal testimony, I also participate in workshop proceedings before the Commission, including the Commission's prior winter storm proceeding and the current grid resilience workshops initiated by the Department of Public Service ("Department"), as well as following the Commission's Line Extensions Rule 5.600 workshops and other proceedings, such as GMP's Integrated Resource Plan.

Q4. What is the purpose of your testimony?

A4. My testimony explains how GMP's proposed new multi-year regulation plan (the "New Plan") continues our work to deliver safe, reliable service to customers in the face of increasingly severe, frequent storms and increasing grid threats. During almost two decades leading operations at GMP, I've seen firsthand the impact more severe weather has on our electric system, our customers, and our crews, and how critical it is to invest in stronger, smarter infrastructure. The New Plan supports this with a proposal to deepen resilience project investment by building on the work under way as approved in the Commission's October 18, 2024, order in Case No. 23-3501-PET ("ZOI Order"). This is a direct response to what we are experiencing in the field—to help keep our responding crews safe, protect customers, and help their communities while we continue the transition to a more dynamic, distributed grid.

The New Plan is also designed to reduce risk for customers from economic volatility and other unpredictable events. It continues to smooth rates over time, includes full decoupling of power supply and retail revenue, and refreshes key costs like transmission and energy annually so that rates stay as current and accurate as possible. The New Plan also establishes guardrails to protect both customers and GMP when

unexpected material events occur—such as extreme storms or economic disruptions as we have seen over the past few years—so we can continue to deliver safe, cost-effective service while maintaining financial strength and stability.

Q5. How is your testimony organized?

A5. I start by describing the schedule GMP proposes for review of the New Plan and then introduce the other witnesses supporting this Petition. In Part II of my testimony, I provide context for our New Plan by discussing what we have experienced over the past few years, including the impacts of increasing severe weather. Part III of my testimony summarizes the improvements we are proposing in our New Plan. In Part IV, I provide specific detail on several elements of the New Plan:

- I explain GMP's proposed capital planning process, and how GMP proposes to incorporate ongoing T&D resilience work as a successor to the first phase of the work under way now through the ZOI Order. As expected, these investments are already providing operational and customer benefits and the New Plan provides a framework for continuing them.
- I discuss how we propose to handle storm restoration costs in the New Plan.
- I describe how GMP's Service Quality and Reliability Plan ("SQRP") is incorporated directly into the New Plan, includes robust metrics to show progress and measure success on resilience projects, and serves as a key performance mechanism under the New Plan for this work.

- Lastly, I describe GMP's customer outreach on the Current Plan and our performance, and how we propose to continue engaging and responding to customers in the New Plan.

The proposed New Plan itself is attached to the testimony of Laura Doane and Rob Bingel as **Exhibit GMP-LD-RB-1**.

Q6. Can you describe the proposed schedule for review of the New Plan?

A6. GMP is filing this proposal for the New Plan now to provide adequate time for review under 30 V.S.A. 218d(f), which provides up to twelve months for review of regulation plans. This aligns with both the end of the current regulation plan and with the upcoming FY27 Rate Case, which GMP expects to file in January 2026.

Here is a summary of the review milestones:

New Reg Plan filed	August 29, 2025
FY27 Rate Case and FY28-30 initial forecasts Filed	January 16, 2026
Commission MYRP order targeted	September 1, 2026
Commission order on FY27 rates	Mid-September 2026
FY27 rates & new MYRP go into effect	October 1, 2026

We ask that the Commission issue an order regarding the Petition no later than September 1, 2026, 30 days prior to the date the New Plan would go into effect, so that there is no gap in regulation plan coverage.

Q7. What fiscal years is GMP proposing the New Plan cover?

A7. The New Plan is proposed to cover four years, FY27 through FY30. Rates for the first year will be set by the Commission's review of GMP's FY27 Rate Case to be filed in January 2026, aligned with the schedule set forth above. During the next three years, FY28-FY30, Base Rates will be set by the terms of the New Plan. Another full rate case review will follow at the end of the New Plan.

Q8. Please summarize the witnesses on behalf of GMP in support of this proposal.

A8. In addition to my testimony, our filing is supported by the following witnesses:

- **Laura Doane and Rob Bingel** describe the core financial mechanisms in the New Plan; the proposed yearly filings under the New Plan; and the categories of and timing of approvals under the New Plan. They also describe the proposed accounting and regulatory treatment of the elements of the New Plan, including the changes GMP is proposing between the New Plan and the Current Plan. They explain GMP's proposal to continue various plan adjustors and smoothing mechanisms. Finally, they outline how the New Plan fits the statutory criteria for a regulation plan under Title 30 V.S.A. Section 218d.
- **Maria Fischer** provides context on GMP's present power supply portfolio and the power costs and revenue mechanisms of the New Plan. This includes a discussion of the Power Supply and Retail Revenue Adjustor, which mitigates volatility, has worked well for customers in several previous regulation plans, and will be maintained in the same form as presently approved.

- **Josh Castonguay** describes GMP's customer-facing innovation programs, including continuation of GMP's Innovative Pilots and modifications to GMP's New Initiatives program. He specifically describes how GMP proposes to treat customer storage, including any continuation of customer-driven storage through GMP's Energy Storage Systems ("ESS") Tariff and related programs. Mr. Castonguay also describes how this New Plan limits "strategic exceptions" to account for specific potential generation plant investments not yet certain to occur, for repowering the Searsburg Wind facility and possible purchase of the Deerfield Wind facility. Finally, Mr. Castonguay describes the continued reporting on a wide range of innovation and performance metrics that will occur under the New Plan. Together with the SQRP mechanisms that are also incorporated, these metrics will ensure transparent results to track positive outcomes for customers.

II. Context for this New Regulation Plan Petition

Q9. The Current Plan went into effect in October 2022. Can you explain what customers have experienced related to severe weather since the Current Plan went into effect?

A9. Since the current regulation plan took effect, damaging storms have increased significantly, both in frequency and severity compared to any other time in our history. In FY23, we saw six separate Major Storm events, the most ever in one year, and costs to repair storm damage for customers more than doubled from pre-pandemic levels. These severe weather events have continued each year and highlight the urgent need to update how we invest in the grid. In response, we proposed a new zone-based resilience

approach for customers, which as set forth in the Commission's ZOI Order, has enabled accelerated storm hardening and undergrounding projects in the areas hit hardest by outages. We also have pending a proposal for delivering energy storage to increase resilience for our most rural customers, subject to further Commission review.[1] The resilience work we have undertaken reflects a broader shift—away from reactive restoration and toward deeper, proactive, community-level investment with more lasting solutions.

Alongside this, customer expectations are changing. During storm events, we speak to many customers in crisis and assist colleagues working with customers to provide operational information to help them get through these events. Customers increasingly need and expect to have power and connectivity at their homes, whether for health, work, safety, or other reasons. We have observed in these customer interactions that Vermonters increasingly need important medical devices in homes, and more customers are relying on connectivity for remote work. In short, customers' ability to be without power has decreased as severe weather has increased.

Q10. Can you describe further the types of weather-related risks GMP customers have experienced during the Current Plan, and how they have impacted customers?

A10. During the Current Plan Vermonters have weathered multiple high wind events along with heavy wet snow and ice storms that led to massive damage and dangerous situations;

[1] *Tariff filing of Green Mountain Power Corporation for approval of a Zone 4 Energy Storage Program Service tariff*, Case No. 25-0719-TF.

experienced new weather patterns including late season gradient wind events and increased tornado risk; experienced severe thunderstorm activity; and seen communities devastated by three years of flooding. Significant storm events occurred year-round and with more variability throughout the seasons, such as the wintertime flooding in Central Vermont in December 2022, or the late-season ice storm that impacted almost 45,000 GMP customers at the end of March into early April 2025. All of these events threaten the safety and well-being of our communities and our field teams and more than ever our customers rely on resilient, reliable power to heat their homes, power their vehicles and medical devices, and stay connected during severe weather events.

These storms also lead to increasing and unsustainable restoration costs for customers. Over the last four years, these costs greatly exceeded anything in GMP's history. For example, in FY23 and FY24 alone we incurred almost $100 million in total for all storms. In the New Plan we proposed to increase resilience projects as approved in the ZOI Order because we have the tools to mitigate these costs with lasting solutions while significantly improving customer and crew safety. As I describe below, we have seen these types of investments be highly effective and are continuing to see impressive results from the projects completed this past winter. This New Plan will continue these investments and build on that success.

Q11. Can you provide details on what else has changed after GMP filed your Current MYRP in 2022 and how the Plan performed?

A11. Several things have changed in the economic and operational landscape since we filed the Current Plan. I have already mentioned how the number of historic, damaging storms has

shifted the way we approach grid investments; this was the subject of the Commission's own proceeding regarding the performance of Vermont electric utilities during the winter of 2022-2023 in Case No. 23-0834-INV, and was the focus of GMP's petition that led to the ZOI Order. Other major developments that were not anticipated at the outset of the Current Plan and inform our thinking for the New Plan include:

- Russia's invasion of Ukraine triggered global volatility in energy markets and worsened fuel cost pressures;
- Inflation surged in the wake of COVID-related supply chain disruptions and recovery spending, impacting materials, services, and labor;
- Interest rates have risen significantly at the same time, which affects the cost of borrowing; and
- Impacts from changes in federal policy across a wide range of areas, including energy and trade, have created cost pressures as well as continued volatility in the general economy.

These changes have required us to use the flexibility in the MYRP structure to meet the needs of customers. This included the ability to amend the plan where necessary to respond to these new challenges. For example, we improved our ability to smooth power supply variations using the established plan adjustors to mitigate volatile energy markets from the Ukraine war and avoid the sharp rate swings for customers seen in other New

England states.[2] These mechanisms allow fluctuations in these costs to offset each other where possible and share the benefits of additional revenue and cost decreases with customers. While the Current Plan largely performed as intended through these amendments, these events also helped us identify additional improvements that can make the New Plan more adaptive and more effective for customers, as summarized in the following part of my testimony and those of my colleagues.

III. Summary of Changes Sought in the New Plan

Q12. What changes is GMP proposing to make in the New Plan?

A12. We propose to continue the basic framework of the Current Plan, with improvements that will help ensure it is responsive to customer interests even in a rapidly changing environment. These are summarized below, and I identify where each change is addressed in detail in GMP testimony:

Base Capital and Resilience Investments (Burke Testimony): The New Plan continues the current framework for a fixed level of base capital investment closed to plant over a multi-year period. This framework provides appropriate management of costs and budgets with flexibility in year-to-year project planning and execution. The New Plan also allows us to continue making important resilience improvements for customers. In this New Plan, we propose from the outset to treat all focused resilience work separate from our routine base capital so that planning and prioritization between these categories

[2] *See*, e.g, New Hampshire Public Radio, Why electricity prices are rising unevenly across New England (Sept. 8, 2022), available at https://www.nhpr.org/nh-news/2022-09-08/why-electricity-prices-are-rising-unevenly-across-new-england (describing impacts of Ukraine war on natural gas supply and energy prices around New Egland).

of investments is clear. In response to Department feedback during previous proceedings, GMP will submit resilience project plans to the PUC each year with "not to exceed" investment amounts for the coming year, as well as forecasts through FY30 when we file the FY27 Rate Case. These project costs will be added to rates after they are closed to plant, consistent with the approach approved in the ZOI Order.

Storm Costs (Burke Testimony): We are resetting storm restoration costs in the FY27 Rate Case, recognizing the multi-year pattern of increased damaging storm activity. The New Plan will also remove the separate line item for advance collection of major storm costs. Instead of this pre-collection, all major storm-related costs will be recovered after they are incurred through the existing exogenous change adjustor, with only actual costs of implementing this rate smoothing mechanism incorporated. The resilience work we have accelerated through the ZOI and proposing to continue during this next Plan period will, over time, help reduce outage response costs.

Customer-Driven Storage (Castonguay Testimony): As described further in Mr. Castonguay's testimony, customer-requested energy storage systems, like those in GMP's ESS program, will continue to be installed in response to customer demand. GMP will propose any specific investment level in base capital in the FY27 Rate Case consistent with any request to approve successor tariffed storage programs for customers. To the extent required to meet customer demand, GMP expects to track and proposed tranches of investment above base capital amounts for separate PUC approval that, unless otherwise ordered by the Commission, will be added to base rates after installation under the specific framework for customer-requested storage in the New Plan.

Other Strategic Investments (Castonguay Testimony): The New Plan removes the broad "strategic investment and unexpected circumstances" exception, replacing it with targeted provisions that enumerate potential investments that may be beneficial for customers over the plan period but will not be included in GMP's forecasts submitted in the FY27 Rate Case because we do not yet know whether they will be pursued. Specifically, we are currently evaluating repowering the Searsburg Wind facility built in 1997, and we have an option to purchase the Deerfield Wind facility next door (rather than continue the existing PPA).

Expanded Annual Reforecast (Doane and Bingel Testimony): The overall approach to expenses including operations & maintenance (O&M) costs is maintained in the New Plan, with some costs fixed for the term of the Plan based on a forecast at the beginning of the Plan, some components updated annually using a formula based on an established inflation factor, and some components re-forecasted and updated annually (e.g., costs subject to annual bidding, forces outside of GMP's control, or with less predictability). To address continued cost variability, more categories of costs will be updated each year using actual costs, third-party forecasts, and inflation indexes, as described further in Ms. Doane and Mr. Bingel's testimony.

Updated ROE Methodology with Longer, Smoother Measurement Period (Doane and Bingel Testimony): The return on equity (ROE) formula will remain largely the same, and will still be indexed to 10-year Treasury yields, but with a longer 6-month averaging period, compared to the current 3 month period, to reduce the effects of short-term swings and provide greater rate stability.

Rate Smoothing and Adjustors (Doane and Bingel Testimony): The New Plan continues the same overall structure and format for the adjustors in the Current Plan, such as revenue, power supply, and storm (subject to changes described above), and continues to smooth costs for customers while, as described in more detail by Ms. Doane and Mr. Bingel, proposing recovery in the New Plan of the carrying cost at short-term debt rates of any balances.

Q13. How does the New Plan, including these updates, align with the goals of regulation planning under Vermont law?

A13. The overall structure of the New Plan, together with these updates, continues to support the objectives of 30 V.S.A. § 218d. The New Plan provides the Commission with significant data and insight into GMP's performance, to which GMP is held accountable under our established SQRP, now incorporated directly into the New Plan's performance metrics. GMP will also continue to share financial risk in a manner designed to keep performance strong and operations efficient. The New Plan continues to promote innovation and investment in clean, distributed energy resources and other emerging technology. It encourages planning and greater investment to respond to increasing climate risks, especially in vulnerable rural areas. It also allows for timely recovery of costs while continuing to moderate rate volatility for customers and share benefits when they arise.

The New Plan improves on the foundation we laid in the Current Plan and will provide the tools we need to meet the moment while delivering value to all customers.

The result will be a more effective MYRP that balances innovation, flexibility, and affordability for our customers in the years ahead.

IV. Discussion of Individual Plan Components

A. Base Capital Plant Additions

Q14. Will GMP continue to follow the capital documentation process and standards for Base Capital plant additions that have been in place in your current and prior regulation plans?

A14. Yes. As we have stated in support of our current and prior regulation plans, GMP will continue to fix base capital plant additions over a four-year period, using an annual investment target that provides flexibility across departments and years, consistent with how the Current Plan has worked. This structure has helped us manage projects with continuity over a multi-year planning horizon. For the New Plan, this approach will continue, with updates to ensure resilience project investment and customer-driven storage investments are integrated effectively into our overall capital planning.

As under the Current Plan, GMP will follow our established capital budgeting process throughout the New Plan. Each year, we develop capital budgets department by department, based on strategic priorities and operational needs, and review those budgets through GMP's Capital Management Team (CMT). The CMT ensures consistency, prioritization, and alignment with customer benefits before approving a consolidated budget. While each department has an anticipated set of projects for the year, the process allows for necessary substitution and reallocation during the year to respond to various

factors—such as delays in permitting, easements, materials, or contractor availability—that may materially impact scheduling of certain projects.

GMP will continue using the capital documentation standards set out in the Memorandum of Understanding between GMP and the Department in Case No. 17-3112-INV ("MOU"). This MOU, and specifically the capital documentation standards outlined in its Exhibit 2, will continue to govern project documentation during the New Plan. Exhibit 2 to that MOU is attached here as **Exhibit GMP-MB-1.**[3] As the MOU provides, those standards apply not only in traditional rate cases but also in any alternative regulation plans, including this one. These standards ensure GMP documents the scope, justification, and customer benefit of capital projects before commencing construction.

The combination of structured planning, year-to-year flexibility, and robust documentation is an effective way to ensure customers receive the benefit of needed capital investments, while maintaining transparency and regulatory consistency.

Q15. What level of overall capital investment do you expect yearly during the New Plan?

A15. As was done in the Current Plan, the New Plan will start with a traditional rate case for FY27 with regulatory review on the level of capital investment to set the proper foundation for the next four years. We are currently developing our FY27-FY30 capital plans for the January 2026 rate filing. The New Plan will incorporate this work. We

[3] This MOU sets forth the documentation necessary to meet the known and measurable requirements for capital projects in a traditional cost-of-service rate case. The MOU provides that "the documentation standards outlined in Exhibit 2 shall also apply in any future alternative or non-traditional rate cases from GMP unless or until a separate documentation standard is established by the Commission or by express agreement between the Department regarding documentation in such cases." DPS-GMP MOU (Nov. 9, 2017) in Case No. 17-3112-INV (Rate Case).

currently expect overall base capital additions to be at a similar level to that set in the Current Plan. We will present known and measurable support for projects proposed in the FY27 Rate Case, which will provide an opportunity to thoroughly review and evaluate the necessary base level of annual spending. As described further in Ms. Doane's and Mr. Bingel's testimony, we will also file forecasted budgets for FY28–FY30 in conjunction with the FY27 Rate Case.

B. Resilience Project Investments

Q16. How does GMP propose to include resilience projects in the New Plan, as a successor to the ongoing work under the ZOI Order?

A16. The New Plan sets forth the framework to continue this work over the term of the New Plan. At the time of this filing, we have many undergrounding and storm hardening projects in progress in key areas of southeastern Vermont, such as East Jamaica (EJ-G7 circuit), Wilmington (56G1 circuit) and along other circuits in these hard-hit areas, all a part of the work in the ZOI Order. I describe below some of the work completed so far and how it is already performing for customers.

The initial T&D resilience work approved in the ZOI Order was proposed after the current base capital investment plan had been set in the Current Plan. As severe weather ramped up, we needed to do far more work than had been included to meet the increasing storm damage and risk to customers. We proposed to do the accelerated work in a focused, by-zone approach and by seeking rate inclusion only after projects were completed. In the New Plan, we are proposing to keep this program as a focused effort over the next several years and continuing to seek rate inclusion only after these projects

are completed as outlined by Ms. Doane and Mr. Bingel. However, unlike in the Current Plan when we filed this work *after* the base capital level had been set, the New Plan anticipates this work during its term from the outset, considering it in our workflow as we set base capital budgets in the coming FY27 rate filing. Resilience work will be accounted for separately from base capital and only included in rates after completion and PUC approval, but by planning for the work up-front, we will be able to utilize both internal and external resources as available and in the best interests of customers, without overlapping cost allocations.

Additionally, during the ZOI proceeding, we heard the interest to see upfront annual planning that scopes the areas, types, and level of investment so that the Department and Commission have insight into the work we expect to accomplish. To address this, the New Plan requires that GMP file a resilience scoping plan each year detailing the areas of upcoming work and level of investment, as set forth in Attachment 11a to the New Plan (**Exh. GMP-LD-RB-1**). We will file the first scoping document, for FY27, with our upcoming FY27 Rate Case.

Q17. What work has GMP accomplished to date under the ZOI Order?

A17. We have made tremendous progress and are currently on track to achieve our goals set through the ZOI Order. Since the Order, including completed projects and those currently in construction, GMP has installed more than 68 miles of cable in conduit underground and over 34 miles of storm hardened overhead lines in the targeted areas in Southern Vermont. Many of these projects relocated miles of cross-country lines that were prevalent in this region historically and pose additional risk to field crews while taking

more time and expense to restore. On the two circuits approved for completion in the ZOI Order, we have finished 50% of the EJ-G7 T&D work on Zones 1-3 and 40% of the 56G1 T&D work. To complete comprehensive upgrades across these two circuits as was the focus of the Commission's ZOI Order,[4] the remaining Zone 4 resilience work is planned through deployment of residential energy storage consistent with the Zone 4 Tariff currently under review by the Commission if approved, as described in greater detail by Mr. Castonguay.[5]

Q18. Have you seen examples of early successes from that work?

A18. Yes, completed projects have improved customer experiences across Brattleboro, Chester, Dover, Grafton, Halifax, Jamaica, Putney, Stockbridge, Wardsboro and Whitingham. Several of these projects were completed and energized in the fall or early winter of 2024-25 and delivered resilience benefits to customers throughout the past winter and during wind events and thunderstorms this spring. To provide some detail on this success even as the work continues, I describe below a few completed projects for Zone 1 and 2 three-phase feeders targeted at the areas of greatest need, including the EJ-G7 and 56G1 circuits. These lines provide a storm-hardened backbone that helps customers directly on the line as well as the remainder of the circuit. Each of these projects also relocated portions of cross-country right-of-way that were difficult and time

[4] ZOI Order at 23 (building framework for starting ZOI work around completing "comprehensive ZOI upgrades on two discrete circuits").

[5] Case No. 25-0719-TF.

consuming to access, improving crew safety in addition to the resilience and safety benefits for customers.

V60 Line, Wilmington to Halifax

The 56G1 Circuit is one of GMP's largest by geographic area, and serves portions or all of Wilmington, Halifax, Whitingham, Marlboro, and Guilford. While mainline feeder hardening had already been completed on portions of this circuit, there was still a major section of the circuit that, if considered on its own, would have been the worst-performing circuit in GMP's territory. This portion is fed by the V60 line, a Zone 2 feeder with a cross-country right-of-way on very challenging terrain. The completed project relocated the cross-country portions roadside and used three-phase underground cable-in-conduit construction wherever possible with storm-hardened spacer cable for overhead lines where required.

The line was energized in late November 2024, delivering an immediate improvement for customers. Prior to the work, customers on the line experienced far more outages of far longer duration than what customers in other areas of our territory experience, with an average of nearly 10 outages per year since 2018, including many outages lasting nearly a day. This region has continued to experience severe weather, including winds up to 69 mph during a 76-hour wind warning in February. Since installation, no weather-related outages have occurred on the line. This work has and will continue to reduce outages experienced in Zones 3 and 4 off the mainline, while we implement the deeper resilience projects under way.

VH4A, Townshend to Wardsboro

Similar to the V60, the VH4A is an important Zone 2 feeder line on the East Jamaica EJ-G7 Circuit. Customers on this line averaged 9.5 outages per year since June 2018, at an average of 7.5 hours per outage. The overhead line that fed this area previously was in an off-road location with extremely tough access, often requiring crews to cross streams and climb steep banks during restoration. This project included roadside relocation of that cross-country section using underground three-phase cable-in-conduit construction wherever possible, supplemented with spacer cable. It eliminated both the frequent outages and the additional safety risk for crews during storms. The work was finished last fall and customers have experienced no outages on the completed area of the VH4A line.

Bethel to Sharon Tie

This is a Zone 1 overhead spacer cable project providing feeder backup between the Bethel and Sharon substations. This was a critical project for the Sharon SHG-35 circuit—one of the five least-reliable circuits—which is radially-fed at the substation by a 50 foot right of way 34kv transmission line. The new feeder backup line and remote restoration devices replaced an aging line with small conductor that had almost two miles of remote cross-country right-of-way. The previous line required crews to hike in from the roadway in order to restore and maintain it using manual switches in the field. The completed project moved the line to roadside, with insulated spacer cable and remote healing system allowing full backup capability for the SHG-35 circuit that kicks in within approximately 1 minute. Since the line was energized in January, we have used it four

times, all during severe weather events, for full-circuit backup during emergencies, avoiding outages to approximately 1,300 customers across the circuit. We also used it another three times to back up the circuit during planned maintenance in the Sharon substation.

Q19. What have you learned from constructing these projects and how do they inform GMP's planning and estimation of future work?

A19. Much of our initial work focused on the mainline feeders in Zones 1 and 2. These projects typically involve spacer cable construction with 477 MCM size conductors, with some three-phase underground where feasible. We have been working with and estimating spacer cable projects for many years, and they involve industry-settled design and construction considerations common to traditional overhead three-phase lines. One important goal of this work, discussed above, is to relocate cross-country lines roadside to improve crew safety in severe weather and significantly expedite service access and reduce restoration costs. These projects have so far proven straightforward to design, estimate, and construct. In addition to the line construction work, we have been incorporating self-healing work coordinated with the hardening of feeders. This provides greater benefit to customers by using a reliable feed to support other circuits when one is down. This initial work has allowed our teams to develop greater expertise implementing these new solutions, which often incorporate associated operational technology (OT) improvements, such as concurrent stringing of fiber line along with the reclosers and relay/protection controls.

In addition to mainline work, we have accelerated use of cable-in-conduit (CIC) underground on single-phase tap lines (as well as three-phase lines in Zone 2 as noted above). CIC underground technology is important to delivering resilience for more rural customers. These initial projects have provided instructive insights for future planning and implementation. Key takeaways include:

- **Line length and mobilization**. Efficient CIC underground is achieved with a rock saw equipped trenching machine and auto cable installation box. The cost of getting the machine on site is largely independent of the amount of work to be done, and can be a substantial expense for smaller, isolated lines, on a cost-per-mile basis. Longer line segments or coordination of nearby projects keep the machine working for a greater part of the day, making the best, most efficient use of the machine. Our workflow planning and design coordinates shorter lines with nearby work, particularly areas that can be trenched in one day, maximizing usage and spreading the mobilization expense. We have also learned better ways to terminate the cable for current and future customer services. Each customer service location requires the machine to stop temporarily. By changing workflows, such as digging these termination areas ahead of time and terminating all three phases instead of one phase on three-phase lines, we have been able to get the trenching machine to quickly drop the cable and resume trenching towards the next customer service point.
- **Town Engagement.** Local communities are incredibly valuable partners in implementing our resilience work. We have ramped up advance communications

with towns about our projects and why GMP is undertaking this initiative. This includes providing towns with detailed project information, ensuring an opportunity for towns to give input on how and when the project is constructed, and working with towns to keep local residents informed. This coordination, including providing construction schedules weeks ahead of time, helps implement projects in an efficient manner for all parties, and will remain a key component of our resilience work.

- **Field conditions**. Initial projects informed our approach to best use the trenching machine capabilities and adapt to field conditions. Installation crews encounter and adjust for varying conditions in the area surrounding the right-of-way including culverts and other water features, as well as the presence and quantity of subsurface ledge. This includes now working ahead of the trencher to understand the quantity of ledge and switching the cutting teeth on the rock saw to match conditions and keep the trenching moving. Crews are also able to adjust in the field as needed, deploying overhead stretches to avoid culverts, streams, or heavy ledge. Roadside installation often requires restoration of the road surface and can involve different quantities of material to return road to preconstruction condition. And finally, we adjust projects to account for varying conditions around the right-of-way, which can include adjacent property owner or town requirements on where we locate easements or equipment cabinets, as well as how we do traffic control during construction. We plan for all of these considerations ahead of time and adjust as needed in the field.

By implementing the learnings above, we have seen production rates and efficiencies increasing with the underground projects. We expect additional learning and improvement as we scale up and report on our progress to the Commission in our upcoming rate filing and annual base rate filings under the New Plan.

Q20. Do you expect to complete the resilience work authorized under the Commission's ZOI Order?

A20. Yes. At this time, we are on track to complete the $150 million of T&D work authorized by the Commission's ZOI Order, as shown in the examples above.

Q21. What areas will GMP target for resilience projects after the initial investments authorized by the ZOI Order are completed?

A21. After these initial investments, we will remain focused on the least reliable circuit list, as well as on areas outside of that list that are experiencing similar outcomes in specific zones. As this work progresses, we will be applying our selection criteria in a more targeted manner by zones within circuits, rather than circuit-wide. This will ensure we reach the areas that need it most. As I describe below, we will provide annual plans scoping this work describing the prioritization of zones across our territory.

Q22. Do you have a multi-year budget for this resilience work?

A22. We expect the next annual investment to be at a similar level shown in our work under the ZOI Order. We will present the "not to exceed" amount for the next fiscal year as part of our FY27 Rate Case and will include initial forecasts through FY30 at that time. These forecasts will include the line construction work, related self-healing and other automated

OT solutions, and the Zone 4 Energy Storage work, if approved. We will continue to refine our approach as we move to new zones and circuits, implementing any improvements and efficiencies, and adjusting scoping in our annual submissions as necessary.

Q23. What type of resilience planning and project completion reporting will GMP provide under the New Plan?

A23. Resilience project planning and completion reporting will be incorporated in our annual base rate filings. This will include both upfront project scoping as described above, and project completion reporting similar to the existing methodology approved in the ZOI Order, as described in the prefiled testimony of Ms. Doane and Mr. Bingel. Specifically, these annual filings will incorporate annual scoping and planning that will provide the Department and the Commission an opportunity to review the anticipated work and level of investment for the upcoming year. Current resilience project selection criteria are set forth in Attachment 11 to the New Plan (**Exh. GMP-LD-RB-1**). The annual scoping filing will provide a "not to exceed" level of investment in the form provided in Attachment 11(a) to the New Plan (**Exh. GMP-LD-RB-1**) which is based on previously provided scoping documents capturing selection criteria and investment level. We will continue to file a report about the projects completed, as we have done for previous resilience work authorized by the ZOI Order, on the form set forth in the New Plan (Attachment 11(c) to **Exh. GMP-LD-RB-1**).

Q24. What capital documentation standards will you apply to this work and how does it fit with GMP's Base Capital planning?

A24. As approved in the ZOI Order, we will utilize the capital documentation standards and requirements for resilience projects as we use for base capital projects. This is set forth in greater detail in my testimony above and in **Exh. GMP-MB-1**. This framework includes preparing capital folders on each project so that comprehensive information is available for Department and Commission review when evaluating annual resilience project reporting. Importantly, as mentioned above, by creating this separate framework for resilience projects at the outset, we can orient our base capital planning so that labor and other project expenses are accounted for in base capital and resilience projects without overlap, allowing for the completion of projects in the most efficient manner.

Q25. Will resilience improvements be replacing aged infrastructure when relocating lines roadside or moving to underground?

A25. Yes. The priority areas for this work involve replacing aged assets that are no longer sufficient to withstand today's climate of more numerous and stronger storms. This is consistent with the age and condition of the circuits where the ZOI Order work has focused and it will continue going forward as projects are selected to prioritize replacement of older infrastructure. The type, age, and condition of existing lines all are key criteria in our risk assessment and project selection. While within these lines individual poles or other components may be newer from replacements during storm restoration over the years, that is typically isolated. Ms. Doane and Mr. Bingel describe how retirements have and will continue to be handled under the New Plan, including the

regulatory accounting framework in Attachment 11 to the New Plan (**Exh. GMP-LD-RB-1**).

Q26. How does storage investment fit into this resilience project framework?

A26. Mr. Castonguay describes in greater detail how storage will continue to be key in supporting customers as part of our comprehensive work to address storms and other costly events on the grid including cyberattacks, energy scarcity events, energy emergencies and more; Ms. Doane and Mr. Bingel outline the regulatory accounting treatment we will follow for customer-driven storage programs in accordance with any Commission approvals.

Q27. How can the Department, Commission, and customers be sure GMP's performance will be measured for this resilience work during the term of the Plan?

A27. Our resilience work has been a focus of our Innovation and Performance metrics (now Innovation, Resilience, and Performance metrics under Section VIII of the New Plan), which were renewed following the Commission's ZOI Order that adopted the 30 metrics proposed by GMP with DPS input along with additional Department performance measures for informational purposes. Mr. Castonguay's testimony describes how we will continue this robust reporting with any refinements as may be suggested by the Commission or Department during this proceeding or evident to us as more projects come online. As discussed further below, this reporting will be enhanced by specific reporting metrics on resilience project outcomes in our SQRP that are directly incorporated into the New Plan's performance reporting. In addition, this reporting may

be further supplemented by any Commission Order resulting from the ongoing statewide resilience investigation in Case No. 25-0339-PET.

C. Storm Costs – Minor and Major

Q28. How are storm costs presently treated in the Current Plan?

A28. Storm costs are treated in two distinct ways under GMP's Current Plan: 1) base or "minor" storm response and repair activity, which are all storm costs outside of a qualifying Major Storm; and 2) a qualifying Major Storm event, as defined in the Plan.

Base storm costs—those incurred in response to routine non-major storms—are included in GMP's base rates as part of our O&M costs. These base storm costs are developed from a historical average of actual minor storm expenses over five years, attempting to ensure the budget represents a level of storm activity customers have experienced that does not meet the Major Storm threshold. This budget includes expenses such as field labor for restoration, overtime, equipment costs, and contractor support, and is intended to cover the costs of storms that, while disruptive and costly, do not exceed the magnitude as defined as a Major Storm under the Plan. These costs are reviewed and updated as part of GMP's annual base rate filings. These base storm expenses are distinct from those that qualify for separate regulatory treatment under the Plan's Major Storm Adjustor mechanism.

Major Storm costs are defined and treated separately under the Current Plan. A Major Storm is one that meets the criteria outlined in GMP's Commission-approved SQRP, which generally requires significant damage to facilities and restoration costs that exceed a defined threshold. Under the Current Plan and SQRP, storm restoration costs

that exceed $1.2 million in a given storm event, along with having 1% of our customers out of power for 24 straight hours and 10% of our customers affected overall, are categorized as "Major Storm" costs. These costs are not in base rates and instead are tracked and recovered separately through the Plan's Exogenous Major Storm Adjustor mechanism, which is described in more detail in Ms. Doane and Mr. Bingel's testimony.

This structure—base rate recovery for average minor storm costs and separate, adjustor-based recovery for Major Storm costs—was designed to ensure some stability in year-to-year base costs while recognizing that it is not beneficial to include in base rates unknown, unquantifiable costs from damaging major events. The structure means customers benefit from predictable base rate levels for routine storm response, while GMP is able to recover necessary costs from increasingly frequent and severe storms without creating volatility in base rates. This approach has been especially important in recent years as Vermont has experienced record-breaking storm activity, with both the number and cost of Major Storms rising significantly.

Q29. What was the purpose of the Major Storm Restoration Fund in the Current Plan?

A29. The fund was first established prior to the Current Plan, to help cover the already incurred costs of a set of extremely damaging storms that occurred in quick succession in the early winter of 2018 totaling approximately $24 million, in a smoother, more affordable way for customers, spread over three years at $8 million per year. Going into the Current Plan, these prior costs had been recovered, and the fund switched to a pre-collection at a reduced level of $6 million per year. The idea was to allow for some balance to build up to cover such events, thereby reducing needed quarterly adjustments. However, the

amendments we made to combine the adjustors and smooth further the balances over a longer period have helped address the tremendous level of storm damage experienced in recent years. These changes, implemented together with other modifications for addressing adjustor costs proposed in the New Plan, supersedes the potential benefit of and need for a pre-collection.

Q30. How will storm costs be treated under the New Plan?

A30. Similar to the Current Plan, we will update base "minor" storms utilizing a multi-year average as a part of the FY27 Rate Case review. For Major Storms, we will continue the SQRP-defined threshold and the adjustor structure summarized in Ms. Doane and Mr. Bingel's testimony, such that Major Storms can be offset by any savings achieved through higher sales or lower power costs and are smoothed over time for customers. As indicated above, the New Plan proposes to eliminate the separate line-item and pre-collection of the $6 million Major Storm Restoration Fund due to the fact that other changes we propose for carrying cost recovery along with the structure of the adjustor mechanisms better address the goals of reducing cost volatility for customers. The best thing we can do to reduce storm restoration costs of all kinds is to continue our resilience work to help customers and the system better withstand these storms with long-lasting improvements.

Q31. What else is GMP doing to reduce storm response costs?

A31. Responding to severe weather and adapting our system to the changing climate and other grid threats is the focus across all GMP teams. We have worked proactively and rapidly

to harden the grid while implementing operational and technological improvements to keep customers and crews safe and connected, lower storm restoration costs, and support community resilience. In addition to the T&D resilience improvements through the Climate Plan, the ZOI Order work, and the many storage initiatives described by Mr. Castonguay, other capital and operations work include:

- Distribution automation efforts such as advanced self-healing and remote healing networks and communications systems, and automated feeder reconfiguration to quickly detect and isolate faults;
- Increased feeder back-up capabilities and limiting radial distribution lines feeding Vermont communities;
- Relocating substations and other critical infrastructure in flood plain areas;
- Implementing supported automated failover systems to maintain grid operations;
- Fortifying data and telecom networks to withstand natural and human caused disasters;
- Improving communications, estimated restoration times, and outreach efforts during storms with Vermont towns and communities and with customers overall;
- Using drones to safely and quickly accelerate damage assessment and restoration efforts, along with help in identifying asset maintenance needs;
- Improving weather forecasting to inform logistics and crew staging, as well as forecasting longer climate trends in project planning;

- Updating our Integrated Vegetation Management program to respond to longer growing seasons, maturing Vermont forests and new insect infestations, including by deploying satellite data and pretrained AI models to optimize our program and increase efficiency; and,
- Creating a more distributed, local, customer-focused grid, such as our Resiliency Zones, Resilient Neighborhood Pilot, Flexible Load Management program, and energy storage offerings.

This work is necessary to support safety and resilience for customers, communities, and our crews during severe weather, and it also helps manage the escalating storm costs. We know our work is making an impact—for example, several large storms since FY24 (measured by total customers) were ultimately classified as "minor" storms because we were able to restore customers fast enough to fall outside the Major Storm criteria. Our broader resilience work will help further speed up these restoration times and reduce associated costs for customers.

D. Service Quality and Reliability Plan

Q32. Explain how the New Plan incorporates the SQRP and what that does to support the goals of the New Plan for customers.

A32. GMP's SQRP is the foundation for measuring and monitoring GMP's performance across key areas that directly affect customers—such as service reliability, billing accuracy, customer response times, and safety. GMP's SQRP establishes clear standards, including penalties for underperformance. Thus, it is a critical piece of the performance-based regulation plan framework under which we operate.

The Commission approved an updated SQRP in December 2024 that modernized certain customer service metrics and updated performance penalty amounts.[6] GMP reports on our performance quarterly and annually to both the Department and the Commission. Following the ZOI Order, GMP petitioned the Commission in April 2025 to further update the SQRP to incorporate metrics established in the ZOI Order to track and report on the progress of resilience work. The Department has recommended approval of the updated SQRP, which is pending in Case No. 25-0751-PET.

In the New Plan, the SQRP is directly incorporated in the performance metrics and data reporting section to ensure that the customer protections embedded in the SQRP are fully integrated into GMP's regulation plan. Any future updates to the SQRP will also be automatically and directly incorporated without need for plan amendments. This is a way for GMP's performance to be monitored and ultimately held to account, since the SQRP is designed around a penalty framework in the event performance falls short. Including the SQRP in the New Plan helps to reinforce this important aspect of utility regulation. The two frameworks work together: the regulation plan provides financial and operational predictability with a focus on achieving customer outcomes, while the SQRP holds GMP to operational performance standards most relevant to customers day-to-day, such as keeping the lights on, answering calls, and providing timely service. Because of this, the SQRP is the appropriate mechanism to measure performance under the New Plan

[6] Case No. 24-2825-PET.

and is properly aligned with the outcomes that Section 218d and the New Plan are designed to achieve for customers.

Like other utility service quality plans across the country and in Vermont, GMP's SQRP metrics exclude the impacts of Major Storm events. This is due to the non-routine, uncontrollable and highly variable aspect of extreme events. Historically, extreme events were also rare, and excluding Major Storms ensured day-to-day tracking is consistent across utilities nationwide. However, we all recognize that even when day-to-day service is very good, Major Storms have a significant impact on customers and Vermont communities, particularly when increasing in frequency. In response to the Commission's ZOI Order and recommendations from the Department in that case, GMP has proposed to expand the SQRP to include detailed reporting on resilience-related work and customer experience that will help track Major Storm events. While these new metrics are not themselves performance standards at this early stage of the work, they will provide good insight into how our storm hardening and resilience investments are performing for customers, particularly in Vermont's most outage-prone areas. These proposed metrics have been formally incorporated into GMP's SQRP as Attachment C-1 and therefore are directly linked to the New Plan's goals of improving long-term reliability and customer protection in the face of more frequent and severe disruptions.

Q33. Can you please summarize the resilience-specific metrics now incorporated into GMP's SQRP?

A33. The specific metrics added to the SQRP in response to the Commission's order provide a comprehensive storm resilience tracking effort that will show how GMP's zoned approach to grid hardening, undergrounding, and customer storage is performing for customers.

In total, the SQRP update includes more than 30 new resilience-related metrics, which fall into two general categories:

Systemwide Metrics – These provide a high-level view of GMP's overall progress implementing resilience investments and the results achieved for customers. They include metrics such as:

- Total miles of system undergrounded or storm hardened per fiscal year;
- SAIDI and SAIFI specifically for rural feeders;
- Number of customer outages lasting longer than 12 hours (CELID-S);
- Number of energy storage systems installed and the share serving low-income or medically vulnerable customers;
- Battery performance during regional and system peaks (which is reported for all GMP customer-sited battery programs);
- Financial savings for customers from peak shaving and avoided outage time.

Circuit-Specific Metrics – These focus on GMP's least reliable circuits where the resilience work is being implemented, and track progress and results at a detailed local level. For each of these circuits, GMP will report metrics such as:

- Percent of the circuit hardened or undergrounded;
- Restoration times (including time to restore 90% of customers);
- Number of lockouts and long-duration outages;
- Number of customers who experience outages exceeding 24, 48, 96, and 120 hours;
- Five-year rolling average of storm costs;

- Battery failure-to-start index for customers with storage;
- Percent of critical facilities served and their outage performance;
- Outage impacts by Environmental Justice community and ZOI investment levels in those areas.

These metrics will be central to tracking the impact of GMP's resilience projects, including physical grid improvements—like replacing open-wire conductors within zones of the distribution system with storm-hardened designs or undergrounding—and pairing those upgrades with residential energy storage, especially in remote, single-phase areas where outages are frequent and restoration is most difficult.

The combination of these measures will significantly reduce the number and duration of outages by hardening and undergrounding sections of the circuit so outages are prevented, and it will enable the most rural customers to have power through grid outages by using energy storage. For example, metrics like SAIFI/CAIDI for customers with energy storage, will help track whether customers are receiving continuous service during storms. Other circuit-specific metrics, like the number of 48+ hour outages or restoration times, show whether GMP is succeeding in shrinking the size and duration of events that would previously have caused multi-day outages for customers.

By incorporating these metrics directly into the SQRP and aligning them with the New Plan's resilience goals, we are continuing to hold ourselves accountable to the Commission, Department and customers. It will streamline data to assess whether the zoned approach to grid resilience is working and will allow us to refine it over time based on real-world outcomes.

E. Customer Outreach in the New Plan

Q34. Under the Current Plan, what customer outreach has GMP done and what insights have you gained from it?

A34. We are always communicating with our customers and do this through in-person events, emails, phone calls, text alerts, social media messages and posts, GMP's website and energy statement notices. Some communication, like on energy statements, can reach all customers and other communication strategies reach a targeted group depending on the purpose of the communication. We also have a wide array of customers located all throughout Vermont, some urban, some rural, some online, some not. As such, we try to have a broad set of communication strategies so all our customers have the information they need. Under the Current Plan, we have open houses twice each year, each at a different district office. They are a chance for customers to meet with local crew members and GMP team leaders in an informal setting that facilitates conversation and helps customers ask direct questions of subject matter experts. We cover a broad variety of topics including storm restoration, metrics, innovative products and services, rates and customer energy statements, and net metering. These meetings are in addition to our participation in dozens of public meetings and events including select boards, energy committees, and energy fairs each year. We also do extensive customer communication before, during, and after severe weather events to provide weather and safety information along with other specifics for different groups of customers such as those with critical care needs. Customers often express gratitude for time spent explaining a new program, storm preparation tips, a rate change, or a billing question and they tell us they like

having clear information and simple ways to get questions answered. We have learned that customized direct communication best addresses what customers need help with or need explained.

Q35. What are you proposing for customer outreach in the New Plan?

A35. We will continue the customer outreach approved in the Current Plan by holding open houses twice a year and using various channels to reach customers depending on the type of communication. The invitation to open houses will continue to appear on energy statements to reach all customers, in addition to other places like social media. The New Plan will continue to be included in these events as it is the overall framework for setting rates and keeping them as low and steady as possible for customers. We also will continue the routine customer notice under the New Plan for any bill adjustment.

Q36. Does that conclude your testimony at this time?

A36. Yes, it does.