

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. 23-3501-PET

Petition of Green Mountain Power for approval)
of its Zero Outages Initiative as a Strategic)
Opportunity pursuant to 30 V.S.A. § 218d and)
GMP’s Multi-Year Regulation Plan)

Order Entered: _____

GREEN MOUNTAIN POWER’S PROPOSED FINDINGS OF FACT & ORDER

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I. INTRODUCTION

This case concerns GMP's proposed Zero Outage Initiative ("ZOI"), which is designed to provide continued improvement on GMP's distribution system for customers and when paired with energy storage, deliver zero outages for customers by 2030. The proposal before the Vermont Public Utility Commission ("Commission") seeks to implement the first component of this work now for GMP customers in communities that have been in the most recent years hit hardest by storms that are stronger and more frequent because of climate change.

GMP proposes to undertake this first component of work during the remaining term of GMP's Multi-Year Regulation Plan ("MYRP" or the "Plan"), which ends on September 30, 2026, as a "Strategic Opportunity" exception to the MYRP's capital limits. GMP proposes to invest up to \$280 Million in transmission & distribution ("T&D") upgrades and customer-sited storage during this time period, as described below. This work would be planned, documented, and further reviewed under established methodology used in both GMP's 2020 Climate Plan¹ and in its Temporary Unserved Location Broadband Deployment Rider.² That methodology allows GMP to request review of specific capital projects only after they have been put into service and are generating benefits for customers, and projects will only be incorporated into rate base if they are approved by the Commission. In this proceeding, GMP is not requesting approval for any specific capital project or for any change in rates, and the Commission's review of this proposal does not constitute any pre-approval of specific investments.

¹ Approved in Case No. 20-0276-PET.

² Approved in Case Nos. 21-0544-TF and 21-0546-PET, and extended in Case Nos. 24-0509-TF and 24-0511-PET.

As a part of the approval of the framework for ZOI project selection and regulatory accounting, GMP is requesting that the Commission allow an “up to” cap of \$280M for ZOI projects over the two-plus remaining years of the MYRP, which would fund up to \$250M in undergrounding and storm hardening of overhead lines and infrastructure upgrades and \$30M in complementary customer-sited storage. GMP has provided planning estimates of the work that it would seek to complete under this proposal, which includes 41 circuits in the hardest-hit and most reliability-challenged areas of its system, benefiting approximately 50,000 customers.

When completed, this work would significantly reduce or eliminate storm impacts in these areas using existing, proven resiliency techniques. In the past 18 months, GMP and its customers have experienced almost \$65M in unplanned major storm expense,³ including the most costly storm restoration year ever in 2023, in addition to almost \$25M in other storm costs, far above what had been expected when rates were set for this MYRP.⁴ The parties and the Commission agree that the drivers of this damage likely will get worse in the coming years as climate change continues to wreak havoc through a warmer and wetter local climate, increased

³ “Major storms” are defined in GMP’s 2014 Service Quality and Reliability Plan (“SQRP”), Section III(7)(d), as severe weather events that meet all three criteria: 1) extensive mechanical damage to utility infrastructure, 2) more than 10% of customers out of service during the storm; and 3) more than 1% of customers out of service for longer than 24 hours. This major storm definition is applied in GMP’s MYRP to determine the treatment of storm costs incurred by GMP.

⁴ Under GMP’s current MYRP, storms are budgeted and accounted for through several different mechanisms. Non-major storms are included in base rates reflecting historical average costs (approximately \$8M annually). Exh. GMP-MB-4. The first \$1.2M of Major Storm costs are absorbed by GMP each year, and costs beyond that are paid for by customers through an annual \$6M Major Storm Restoration Fund designed to offset such costs and, when needed, through GMP’s Exogenous Change Adjustor which accounts for events like these outside of GMP’s control. *See* August 31, 2022 Final Order in Case Nos. 21-3707-PET & 22-0175-TF at 10.

vegetation, and more frequent and severe weather. That trend is a key reason why resiliency investments like those proposed here are found to be in the best interest of customers.

While GMP has not provided a forecast of future costs in the absence of this mitigation because of the uncertain nature of these events, the record is clear regarding costs we are already experiencing. GMP also has shown that the types of projects it will accomplish through this initiative will reduce outages and storm restoration costs when storms hit hardened areas. In addition, customers' lives will be less impacted and safety for customers and crews will be enhanced by increasing the resilience of GMP's system.

Importantly, to protect customers and ensure that GMP is investing in the right projects in the right areas, GMP has committed that all ZOI projects submitted for approval will demonstrate GMP's decision-making through its established capital documentation practice—including cost-benefit and alternatives analysis where required—at the time they are submitted for approval in rates, consistent with GMP's capital planning obligations under the MYRP and the proposed framework. In addition, all projects will be selected under a set of selection criteria designed to ensure the right areas on the system are being prioritized. The Commission will also require extensive data reporting on the deployment and performance of ZOI measures, as requested by the Department of Public Service ("DPS" or the "Department") and supported by GMP. Finally, we will also order GMP to add to its Service Quality and Reliability Plan ("SQRP") a section that will include specific performance measures associated with completed ZOI zones, per the recommendation of several Department witnesses, and will impose penalties on GMP in the event they do not achieve the results they expect through these projects.

With those requirements in place, the Commission concludes that GMP's proposal sets out a framework for selecting and implementing projects, under which projects will only be approved if they are in the best interests of customers and with other required data reporting and risk sharing conditions described below. With those conditions, we find that the proposal will result in just and reasonable rates. The Commission further concludes in light of the significant and unabating impacts from climate change driven weather—at a magnitude not anticipated when GMP filed its MYRP—that the ZOI proposal and investment cap as proposed by GMP is the right scale to respond to these impacts for customers and should be approved without further delay.

II. PUBLIC COMMENT

The Commission received two written public comments in this case, each supportive of the initiative. The first encouraged the Commission to approve GMP's ZOI, noting the resiliency benefits of the proposal along with the modernization and decarbonization of GMP's system. The second comment shared the experience of a customer in rural, southeastern Vermont town experiencing impacts from big storms, noting their appreciation of GMP's ongoing efforts to try to reduce the outages they experience.

III. LEGAL STANDARD

GMP's MYRP was approved by the Commission under 30 V.S.A. § 218d in Case No. 21-3707-PET and modified in Case No. 23-0141-PET. Section IV(A)(6) of the MYRP provides:

Notwithstanding the other provisions of this Plan, GMP may petition the PUC for approval at any time during the Plan for incremental plant in service additions, expenses and revenue to be included in rates when either unexpected

circumstances or new strategic opportunities arise that provide material benefit to customers.

Strategic opportunities here may include, but are not limited to, categories of investments that provide new opportunities to increase the resiliency of the distribution system.

In its petition for relief, GMP will bear the burden of demonstrating that the proposed investments, expenses, and revenue for unexpected circumstances or new strategic opportunities are in customers' best interests and will result in just and reasonable rates in the long run.

GMP is seeking approval of the ZOI under this approved "Strategic Opportunity Exception," and so must show that the proposed investments are in customers' best interests and will result in just and reasonable rates. This provision was included in GMP's existing Plan, which was found just and reasonable under 30 V.S.A. section 218d, to provide flexibility to address unexpected circumstances or strategic opportunities during the term of the Plan. It is properly applied here given the extreme climate change-driven storm events that are well beyond what was predicted at the time of approval of the Plan. The record demonstrates that the comprehensive ZOI approach GMP proposes here—using newly available, more efficient methods to implement undergrounding and other proven storm hardening techniques plus storage to mitigate these increasing storm impacts—will meet this standard, subject to the conditions imposed by the Commission.

GMP's proposed ZOI work meets the standards required to approve a strategic opportunity under MYRP § IV(A)(6). The Department questions whether GMP's ZOI qualifies under the Strategic Opportunity Exemption based on the level of investment and further

questions whether the resiliency work planned here is a “new” or “novel” opportunity.⁵ The Department however acknowledges that additional resiliency work for customers is needed, that some further spending would qualify as a Strategic Exception, and that there is not a specific “magic number” for establishing the scope of this exception.⁶ In addition, while the resiliency projects GMP proposes are proven approaches already in use by GMP, putting them together in a comprehensive, full-circuit initiative is, in fact, novel—both for GMP and in the country.⁷

There is also no dispute that the magnitude of storm impacts and costs seen since the MYRP was put in place were not foreseen to accelerate as quickly as they have even with GMP’s focus on climate resiliency planning.⁸ Indeed, the extent of climate-driven storm impacts has increased dramatically since the MYRP was approved in 2022—imposing impacts on GMP customers through multi-day outage events at a scale not anticipated at the time the Plan was approved, as well as costs well beyond the \$6M annual major storm restoration fund established in the Plan at the time. In the face of these increasing impacts, GMP has designed ZOI to increase the resiliency of the distribution system for customers, particularly prioritizing those areas of the system that are hardest hit by climate driven storms.

It is uncontested that the type of T&D work GMP is proposing will increase the reliability and resiliency of the system, and therefore will reduce storm restoration costs for all customers when future storms hit storm hardened areas.⁹ The residential storage measures

⁵ Walter (TJ) Poor, DPS (“Poor”) pf. at 6.

⁶ Tr. 6/11/24 at 181-82 (Poor).

⁷ Tr. 6/11/24 at 109 (Jordan).

⁸ Burke pf. reb. at 21.

⁹ Mara pf. at 14, 17-18, 30; Jordan pf. at 11.

proposed to be implemented in Zone 4 through ZOI also have a well-established track record of helping customers safely ride through outages when they occur while generating benefits for all GMP customers, giving GMP flexible resources to better manage power supply costs and incorporate distributed resources into the grid.¹⁰ GMP has proposed a regulatory accounting approach, previously used in both the Climate Plan and the Broadband Rider, which ensures that costs will not be included in rates until projects are completed and delivering benefits to customers, and are reviewed and approved by the Commission.¹¹ If fully implemented, the cost of this initial component of ZOI work will be less than 2% annually, well below the scale of recent major storm restoration work.¹²

Given the extreme impacts customers are experiencing, GMP's proactive approach to applying the Strategic Opportunity exception is in customers' best interest and will result in just and reasonable rates. This exception was specifically incorporated into the existing MYRP, which the Commission approved under 30 V.S.A § 218d and is intended to address exactly the types of challenges customers face now.

¹⁰ Josh Castonguay, GMP ("Castonguay") pf. at 23-25.

¹¹ Laura Doane, GMP ("Doane") pf. at 5. Tr. 6/11/24 at 160 (Doane).

¹² Burke pf. at 21.

IV. POSITIONS OF THE PARTIES

A. GMP

GMP seeks approval to implement the first component of its ZOI throughout the remainder of the MYRP term, through GMP's fiscal year ("FY") 2026. This proposal includes an accounting framework to review and incorporate into rates individual ZOI projects after they placed in service, using the same framework approved by the Commission for prior initiatives, including under the Strategic Opportunity Exception.¹³ The total investment associated with this proposal would be capped at \$280M above the capital limits established for the term of the MYRP. This amount would allow work on the "20-worst" circuits by reliability measures tracked through PUC Rule 4.900, as well as 20+ additional circuits that are experiencing similar challenges. Together, this work would directly help 50,000 customers in the areas of GMP's territory that need it most. Data provided by GMP, at the request of the Department in this proceeding, shows that these areas account for about 33% of recent major storm outages, even though they serve less than 20% of GMP's customers.

The parties agree that it is important to track the performance of the ZOI investments, which will inform future resiliency work. In response to Department testimony, GMP has proposed a series of metrics and categories of data reporting that will track the rollout of ZOI, monitor initial outcomes, and help set a baseline for future measurement of success. GMP and the Department are largely in agreement on the GMP-proposed metrics, which are discussed in

¹³ Temporary Unserved Location Broadband Deployment Rider was approved as a Strategic Opportunity applying the same accounting framework. *See* March 12, 2021 Final Order in Case No. 21-0546-PET.

detail in Section V(E). The Department proposed additional categories of metrics, many of which GMP agrees are appropriate, as explained in greater detail below. Relatedly, GMP proposes to complete all ZOI projects on two full circuits so that measurement of outcomes across the integrated ZOI framework can begin.

In connection with metrics and data reporting for measuring the ZOI, the Department urges that some performance incentive is required to balance investment risk between GMP and customers. In the Department's view, risk sharing could be achieved by financial penalties tied to certain newly established performance metrics as well as through later updates to GMP's SQRP. GMP views the DPS-proposed new performance metrics and associated financial penalties as inappropriate because they are novel, not tied to expected outcomes, lack developed baselines, and do not provide actionable or appropriate targets. However, while GMP initially objected to the Department's recommendation that GMP include ZOI projects and major storm outage data in its systemwide SQRP, GMP modified its position after reviewing the Department's surrebuttal testimony and now agrees that an addition to its SQRP is the appropriate way to ensure GMP delivers the benefits of this work to customers. GMP notes—and some Department witnesses agree—that the SQRP is an enduring framework used by all utilities here and elsewhere to measure reliability outcomes and provide accountability and is already incorporated into the MYRP.¹⁴ GMP asks the Commission to reject the newly-proposed penalty metrics put forward by the Department and instead proposes that a ZOI-specific set of metrics be added to GMP's SQRP in a follow-up filing upon further consultation with the Department.

¹⁴ Tr. 6/11/24 at 110-11 (Jordan).

B. The Department

The Department's concerns relate to the scale of ZOI investment; the level of planning for the initiative; and as discussed above, performance measures and mechanisms for risk-sharing between GMP and customers.¹⁵

The Department generally agrees that increasing investments in cost-effective, grid-hardening infrastructure, such as underground lines and spacer cable, as well as cost-effective battery storage investments, can help improve reliability and resilience of the electric system.¹⁶ The Department, however, maintains that additional analyses and planning should take place before any ZOI investments commence, including development of cost-benefit analyses applicable to the overall investment, along with more specific project planning.¹⁷

The Department has alternative recommendations to the Commission regarding the ZOI proposal. Its primary recommendation is that the Commission reject GMP's petition and require GMP to submit a "master plan" and overall ZOI cost-benefit analysis in its 2024 Integrated Resource Plan ("IRP") later this year and incorporated into a successor regulation plan.¹⁸ In the alternative, the Department indicated it would support more limited levels of investment under this MYRP, while also requiring further filings before GMP could commence this work and the detailed comprehensive plan and cost-benefit analysis mentioned above before seeking any further investment.¹⁹ The Department initially proposed a cap of \$50M but later in surrebuttal

¹⁵ Poor pf. at 3, 6-7, 11-13; Poor pf. surreb. 2-3, 13.

¹⁶ Mara pf. at 14, 17-18, 30; Jordan pf. at 11.

¹⁷ Poor pf. surreb. at 7-8, 13.

¹⁸ Poor. pf at 11-13, Poor pf. surreb. at 7-8, 13.

¹⁹ Poor pf. surreb. at 9, 13.

testimony indicated that a cap of \$80M would allow GMP to complete ZOI projects on the two most-pressing circuits, discussed above, to demonstrate the effectiveness of ZOI.²⁰ That work would benefit approximately 5,000 customers.²¹

V. PROPOSED FINDINGS & DISCUSSION

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

A. Background

1. When GMP filed this Petition, storms over the previous twelve months had been the most costly and impactful in GMP's history. Micheal Burke, GMP ("Burke") pf. at 14.

2. Vermont's climate is getting wetter and warmer. In wintertime, more heavy wet snow events that can tear down trees, and in turn knock down poles and lines, is becoming the norm. In the summer, tropical downpours that quickly inundate communities will happen more frequently. Burke pf. at 15. In the fall and spring, the higher moisture content in the warmer air leads to stronger and deeper low-pressure systems that create damaging gradient wind events that interact with Vermont's geography by down-sloping and gaining speed down ridgelines and into communities. These wind events are also increasing in both frequency and intensity. Burke pf. at 17.

²⁰ Poor pf. surreb. at 9, 13.

²¹ Tr. 6/11/24 at 54-55 (Burke).

3. These climate trends have other impacts such as saturating and destabilizing soil and creating faster vegetation growth, both of which in turn increase the likelihood of outages, particularly when gradient winds increase and knock down large trees growing outside of utility rights of way. Burke pf. at 15.

4. Vermont is approximately 70-80% forested now, far more than when the electric system was first constructed here. A number of outages during these increasing storms are caused by tall otherwise healthy trees that fall on an overhead electric line from outside of the utility right-of-way ("ROW"), which means that routine vegetation maintenance within the ROW will not solve this problem. The solution to this problem must go beyond vegetation management, which is what GMP is proposing in the ZOI. Bill Jordan, DPS ("Jordan") pf. at 8-9.

5. Meanwhile, Vermonters are becoming more dependent upon electricity, especially for telecommunication needs. Jordan pf at 8-9. The result of all of this is that both the likelihood and consequences of electrical outages are increasing for customers. Jordan pf. at 9.

6. The climate effects that GMP lays out are in line with assessments from expert meteorologists and the National Oceanic and Atmospheric Administration's latest State Climate Report for Vermont and are reflected in Vermont's recent storm experience. Burke pf. at 14-15; Exhs. GMP-MB-2 and GMP MB-3.

7. In the twelve months preceding this Petition, GMP incurred \$45M in major storm damage in addition to approximately \$8M annually in routine and recurring smaller storm response. Major storm costs in 2023 were the highest GMP has ever experienced. Burke pf. at 20, Exh. GMP-MB-4.

8. Over the preceding ten years, GMP has incurred \$115M in direct major storm costs— with 40% of that experienced in 2022 and 2023. Burke pf. at 20, Exh. GMP-MB-4.

9. Since filing the Petition in October of 2023, GMP experienced ten additional damaging, regional storms by April 2024 and incurred a further \$20M in major storm spending. Burke pf. reb. at 6-7.

10. Department witnesses also acknowledge the increasing impacts of storms on customers, including the significant storms that have hit Vermont since approval of the most recent MYRP. Anne Margolis, DPS (“Margolis”) pf. at 9; Tr. 6/11/24 at 172-73 (Poor); Kevin Mara, DPS (“Mara”) pf. at 16; Jordan pf. at 8-9.

11. These storm events usually hit hardest along the slopes of ridgelines and in the central and southern parts of Vermont, Burke pf. at 14, which can be seen on the heat map of recent outage trends GMP provided as Exh. GMP-MB-1:

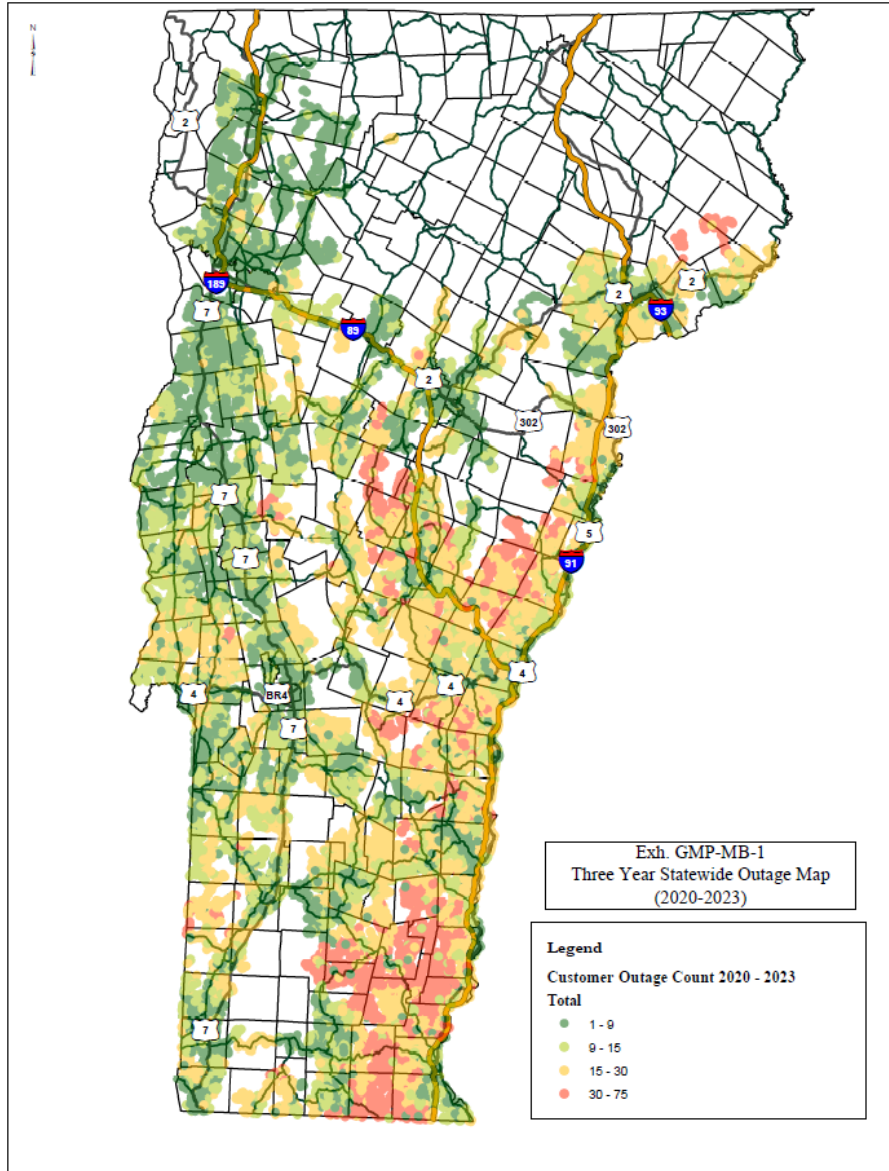


Figure 1: Exhibit GMP-MB-1 – Three Year Statewide Outage Map

12. As seen in Figure 1, GMP customer outcomes vary widely across its system. Over 80,000 GMP customers did not experience an outage in 2023. Tr. 6/11/24 at 85-86 (Burke). Many of these customers reside in more urban and suburban communities, such as the Colchester district in which only 2% of customers experienced four or more outages a year. In other districts, though, particularly in more mountainous areas and in rural communities, customers are

experiencing significant storm impacts. In the Brattleboro district, for example, 64% of customers experience four or more outages yearly, and 40% more than eight. Burke pf. reb. 7-8.

13. Vermont is not alone in seeing increased storm damage and costs. Storms have been increasing in both frequency and extreme damage in other states all over the country, but importantly in all other states in the Northeast. Burke pf. reb. at 9.

14. For example, in a recent April 2024 storm, the tenth worst in GMP history, brought flooding and tornadoes across the Mid-Atlantic and South before bringing high wind and heavy snow to New England resulting in over 174,000 outages in New Hampshire and more than 341,000 outages in Maine. Burke pf. reb. at 9.

15. These storms have taken a tremendous toll, affecting Vermonters' sense of safety and security in ways that are incalculable. GMP reports that some of the most vulnerable Vermonters they have encountered in outreach during storms are those living in the most rural and remote parts of the state, many aging, without resources, and often receiving healthcare services at home. Burke pf. at 19.

16. In addition to the direct storm costs discussed above, there are financial, social, and emotional costs to customers every time an outage occurs, as well as significant safety risks to customers who are without power and for crews working to restore it in challenging storm conditions. Burke pf. at 20; Tiana Smith, GMP ("Smith") pf. reb. at 9 (describing many of the challenges customers experience during storms, particularly those that are vulnerable and have critical medical needs or lack reliable backup power).

17. By a measure of direct major storm costs alone, the rate impact from restoration is significant and unsustainable. GMP has had to file multiple quarterly requests as set forth in its

MYRP to increase the major storm adjustor on customer bills as these storms happen. At the time of filing, as smoothed under GMP's existing MYRP, customers already had a 2.3% increase over three years (more than 7% if it were collected in a single year). Burke pf. at 21. Additional major storm costs have been placed into rates through quarterly filings since that time.²²

18. All of this is in addition to the other unbudgeted non-major storm costs that also have increased. GMP notes that many of the damaging storms so far in FY24 have not met the major storm criteria, but nevertheless were impactful and damaging to customers and have already this year cost more than double the budget set forth in rates. Burke pf. reb. at 6-7; Exh. GMP-MB-10 (noting that yearly budgets are based on a multi-year historical average). Those too affect customers; when GMP's yearly results fall below expectations those costs are shared between GMP and customers through its Earnings Sharing Adjustment Mechanism. Burke pf. at 21.

19. Meanwhile, that same level of investment in T&D capital projects for undergrounding distribution lines and storm hardening main line feeders is spread over 45+ year life of these long-lived assets and creates a one-year rate impact that is many multiples lower than the cost of repair even before accounting for the many lasting resiliency benefits of doing this work. Burke pf. at 21, 36. Storm impacts will only intensify as will restoration costs in the absence of this initiative. By contrast, the investments made under ZOI are long-lived assets with manageable and known annual impacts. Burke pf. at 36.

²² See Q4 FY23 Quarterly Adjuster Report filed in Case No. 23A-3770 (reflecting \$5.4M in storm expense that quarter) and reflected in the Q1 FY24 Adjuster Tariff, Case No. 24-0301-TF.

20. In customer polls conducted by the Department in 2023 regarding renewable electricity, Vermonters selected affordability and reliable service as their top two concerns, above all other considerations. Smith pf. reb. at 7, 14-15; McIlvennie pf. surreb. at 18-21.

21. ZOI is GMP's response to those customer concerns. It is not affordable for customers to continue to bear the significant, repeated costs of repairing climate-driven storm damage, and it is not safe for them to do so either. Smith pf. reb. at 7.

B. Zero Outage Initiative Project Types and Methodology

22. This Zero Outages Initiative is an urgent response to the impacts of changing weather, bringing together a proven multi-layered approach to deliver to customers comfort and safety during these events. Burke pf. at 7.

23. These layers consist of three major components that work together across the grid to reduce outages and the associated cost of restoration, with the goal that customers will experience zero outages by 2030. These components are:

24. Undergrounding Lines. The ZOI prioritizes a rapid deployment of undergrounding primary distribution lines. As explained below, in many cases, this has become more cost-effective than overhead construction and results in a much more reliable energy system in the face of extreme weather.

25. Spacer Cable and Tree Wire for Overhead Lines. For 3-phase or primary overhead lines—for example, so-called “main feeders” that leave substations and feed the power into entire towns—storm hardening will be accomplished with insulated, strong lines that can withstand much more damage from trees.

26. Energy Storage. The zero outages aspect of the Initiative would be achieved by providing energy storage resiliency to homes and communities with a combination of battery storage, microgrids and new technologies, through GMP or other parties over time. Burke pf. at 4-5. Tr. 6/11/24 at 141-43 (Castonguay).

27. While GMP expects to continue testing and incorporating new technologies, each of these components are being deployed widely on GMP's system and have been for some time. Burke pf. at 19; Castonguay pf. at 30-32; Tr. 6/11/24 at 133-34 (Castonguay).

28. The initiative brings together these three existing approaches as a comprehensive approach to whole-system resiliency for the first time. Tr. 6/11/24 at 109 (Jordan), 144-45 (Castonguay). This integrated, comprehensive circuit approach is the key innovation in the ZOI. Burke pf. reb. at 15.

29. To organize and prioritize the deployment of these components, GMP expects to take a circuit-by-circuit approach across its approximately 300 circuits. Burke pf. at 26.

30. Within each circuit, GMP looks at four broad zones spanning the T&D system. These run from main line distribution feeders that tie substations together and travel out to the first protective devices on an electrical circuit (Zone 1), to three phase radial tap lines (Zone 2), to long single-phase distribution lines that serve dozens of customers or more (Zone 3), to single phase lines that serve smaller groups of customers, typically 1 to 10 customers (Zone 4). Burke pf. at 28-29; Exhs. GMP-MB-7 through MB-9.

31. These four zones allow GMP to identify strategies that are most effective in addressing customized resiliency within each zone, building to zero outages across the circuit and then GMP's service territory. Burke pf. at 29.

32. Zone 1 lines are the backbone to T&D operations and tend to be closer to population centers, typically three-phase distribution service and carry all customers off that electrical circuit. These lines commonly require overhead storm hardened solutions such as spacer cable and tree wire, which will be the prevalent ZOI solution here. Burke pf. at 29.

33. Zones 2 and 3 are sections of distribution lines between protection devices. Zone 2 has a higher customer count and is typically three-phase distribution. Zone 2 lines typically carry both commercial and residential customers and do not tie to adjacent substations. Zone 3 lines are in settings that are typically residential single-phase distribution with 10-20 customers or more. In both of these zones, undergrounding will be a preferred solution wherever possible, with storm hardening overhead projects where it is not. Burke pf at 30.

34. Zone 4 lines are typically single-phase lines feeding the fewest customers per line mile, often single customers. Accelerated storm hardening of the infrastructure in all of these areas would be a very significant undertaking and likely not cost-effective in all locations; where that is true, providing storage directly for individual customers will be a preferred solution, especially given the multiple benefits it provides. Burke pf. at 30.

35. Across these four zones, the three primary ZOI components work in a comprehensive manner so that when storm response is needed, GMP crews are able to respond to individual restoration needs much quicker and focus on restoration for customers outside of ZOI circuits, and ultimately on efficiently restoring customers who remain powered up with storage. Tr. 6/11/24 at 46-47 (Burke), 144-45 (Castonguay).

36. This Petition concerns the first two years of ZOI work through the end of FY26. For this initial set of work, GMP is focused on the circuits and customers that need it the most: the

rural areas of southern and central Vermont where severe climate change driven storms are hitting hardest and disproportionately impacting those customers. Burke pf. at 5.

C. Accounting Framework

37. During the term of the existing MYRP, GMP is proposing a regulatory accounting process for Zero Outages work that is consistent with the methodology approved by the Commission in GMP's Climate Plan (Case No, 20-0276-PET). Laura Doane, GMP ("Doane") pf. at 5. Tr. 6/11/24 at 160 (Doane).

38. This regulatory accounting process is also in place for GMP's Temporary Unserved Broadband Deployment Tariff Rider, which has been approved as a Strategic Opportunity under the previous and current MYRP. Burke pf. at 12-13.²³

39. Specifically, GMP will not include any Zero Outages capital projects in rate base until the capital projects have been completed and placed in service and are reviewed and approved by the Commission. Doane pf. at 5; Exh. GMP-LD-1.

40. Zero Outages related O&M expenses will also not be included in cost of service in a rate filing until the costs have been incurred, reviewed, and approved by the Commission. Doane pf. at 5; Exh. GMP-LD-1.

41. Once projects are completed, GMP will submit them for Commission review and approval in its subsequent Annual Base Rate filing during the MYRP to be included in base rates, upon approval, in the following fiscal year. Doane pf. at 6, Exh. GMP-LD-1.

²³ See also March 12, 2021 Final Order in Case No. 21-0546-PET (approving Broadband Tariff Rider as a Strategic Opportunity), as extended in Case No. 24-0509-TF and 24-0511-PET.

42. Of note, the second ZOI review filing (for projects completed between April 1, 2025 and September 30, 2025) will be submitted as part of the full traditional base rate case for FY27 base rates. Projects completed on or after October 1, 2025 will be included in base rates as ordered by the Commission in any future regulation plan. Exh. GMP-LD-1; Tr. 6/11/24 158 (Doane).

43. For each project developed under the Plan, GMP will continue to follow the required capital documentation standards outlined in GMP's Memorandum of Understanding with the Department of Public Service and approved by the Commission in Case No. 17-3112-INV (Exhibit #2 to DPS/GMP MOU). Doane pf. at 5. Tr. 6/11/24 at 34, 51-52 (Burke); Exh. GMP-LD-1; Tr. 6/11/24 at 174-75 (Poor) (noting that it is the Department's expectation that GMP will follow this documentation process for individual projects).

44. Under those capital documentation standards, GMP will perform a financial analysis on each ZOI capital project. The ZOI as a whole is a collection of hundreds of smaller projects, with each of those projects receiving a financial analysis to determine the best project for the area in question through an assessment of costs and benefits and alternatives. Tr. 6/11/24 at 34, 51-52, 95-96 (Burke).

45. All projects will evaluate costs, benefits, and consider least-cost alternatives, and projects above a certain dollar threshold will receive formal cost/benefit analysis, subject to certain exceptions. Tr. 6/11/24 at 51-52, 95-96 (Burke).

46. When GMP submits completed individual projects for Department and Commission review in its Annual Base Rate Cases or a traditional rate case, these cost-benefit and alternatives

analyses will be available for review in capital folders to help determine the justness and reasonableness of any investment. Tr. 6/11/24 at 96 (Burke).

47. Prior to approval, GMP will record to a regulatory asset for future recovery from customers the depreciation, property taxes, and other project expenses between the time a Zero Outages capital project is completed and placed in service and when it is included in rate base in a rate filing and defer collection of this regulatory asset until that project is approved. Doane pf. at 5, 8; Exh. GMP-LD-1.

48. This accounting framework is not expected to require any changes to GMP's capital structure, or how debt costs, Allowance for Funds Used During Construction ("AFUDC"), construction work in process ("CWIP"), or other components are treated under the MYRP, and any changes would require Commission approval. Doane pf. at 7, 9.

49. The benefits of ZOI projects will be passed through and accrue to customers through the mechanisms in place in the MYRP. Doane pf. reb. at 6.

50. For some benefits, such as future avoided major storm costs or power supply benefits from customer storage, MYRP adjustor provisions will immediately and automatically reflect savings in rates. Doane pf. reb. at 6.

51. Other cost savings that materialize over time will also be passed through to customers in future rate proceedings when savings are known and measurable because these rate filings are based upon methodologies that capture actual costs over varying timeframes. Doane pf. reb. at 6.

52. Department witness Steven Hunt agreed that savings not immediately captured in MYRP adjusters will appropriately flow through to customers when they become known and measurable and are reflected in future rate proceedings, and that GMP's accounting will

correctly net any retirements from replaced distribution infrastructure so that it is no longer in rate base. Steven Hunt, DPS (“Hunt”) pf. surreb. at 3-4; Tr. 6/11/24 at 240-42 (Hunt).

53. Mr. Hunt has recommended that GMP develop a baseline of O&M expense to measure incremental O&M expense associated with ZOI. Hunt pf. at 8.

54. Under the ZOI accounting proposal, GMP will be responsible for demonstrating that any O&M costs submitted for inclusion in a rate filing are incremental and not included in MYRP base rates, and no ZOI O&M cost will be included unless GMP makes this demonstration to the Commission’s satisfaction. Doane pf. reb. at 3-4; Tr. 6/11/24 at 245 (Hunt). O&M expenses will be tracked through generally acceptable accounting principles and segregated by ZOI and MYRP projects. Doane pf. reb. at 3-4.

Discussion

As proposed, the ZOI contains several mechanisms that will ensure ZOI projects are implemented in a manner that benefits customers. First, building on the initial high-level scoping GMP has already performed for ZOI projects, for each individual ZOI project GMP will prepare all required capital documentation consistent with the standards approved by the Commission in GMP’s previous regulation plans. As required by those standards, GMP will perform a financial analysis on each ZOI capital project, including an evaluation of the best project for the area in question and an assessment of alternatives and their costs. This will allow thorough review of any ZOI project and the basis for its selection.

Second, the Commission’s approval of the ZOI Strategic Exception here does not authorize or approve any specific ZOI projects. Rather, under GMP’s regulatory accounting

proposal, no projects will be included in rate base until they are completed, producing benefits for customers, and have been reviewed and approved by the Commission. This is consistent with the regulatory accounting approach used in both the prior Climate Plan as well as GMP's Broadband Rider, which was approved as a Strategic Opportunity under GMP's prior regulation plan. To the extent there are any incremental ZOI O&M expenses, the same after-the-fact Commission review and approval process is required prior to placing any O&M costs in rates, with GMP bearing the burden of demonstrating that such expenses are in fact incremental and not otherwise already included in rates under the MYRP.

One DPS witness, Mr. Hunt, recommended a baseline of O&M costs be developed as a part of this proceeding, but did not offer a specific approach for doing so. Given that GMP has confirmed that it bears the burden of showing that O&M expenses are in addition to and incremental from what already is included in rates should such costs arise, this undefined recommendation is unnecessary under the circumstances.

The proposed regulatory accounting ensures that least cost projects will be advanced and allocates the risk of demonstrating the reasonableness of each individual project on GMP, providing the Commission the ability to determine whether the requested projects are appropriate under regulatory standards. This approach, coupled with extensive data reporting and proposed future SQRP performance measures on completed ZOI circuits discussed below, is protective of customers and ensures that ZOI projects are providing benefits for customers.

D. Capital Investments in ZOI Projects

i. Types of Capital Work

55. As explained above, GMP plans to implement the ZOI through three primary resiliency solutions being deployed now for customers: undergrounding distribution lines, storm-hardened overhead construction, and customer storage.

a. Undergrounding

56. In recent years, underground construction has become on par with overhead construction from a cost standpoint and is also quicker and less disruptive. Burke pf. reb. at 33.

57. GMP has been deploying cable-in-conduit undergrounding for several years, which is far more efficient than the legacy installation technique requiring an open trench and conduit sections. Burke pf. reb. at 32.

58. For the 50 miles of distribution line GMP has already installed to date, no damage has occurred to any of these line sections during storms. Burke pf. at 11.

59. Underground technology and equipment have now evolved further, and GMP has located a company based in central New York that owns machines that can efficiently trench and lay up to five already ready-to-serve conduits with cable already in there (including communications empty innerduct conduits for later access as needed), and then backfill all in one pass. Burke pf. reb. at 32.

60. The difference in using this new undergrounding technique, which can accomplish up to a mile per day in ideal conditions, is enormous compared to simply rebuilding lines overhead. Burke pf. reb. at 33.

61. The contractor that supplies this equipment has committed to bringing the necessary machines to Vermont, as soon as we are ready to deploy them and could complete up to 200 miles of undergrounding in a 6-month period. Burke pf. reb. at 33-34.

62. All-in, undergrounding is now often more cost-effective overall than storm hardening overhead single-phase distribution lines. When conditions warrant, undergrounding can now be used for three-phase lines as well. Burke pf. at 11.

63. GMP will work with any attaching telephone or cable companies on existing overhead lines with the hope that they will follow and underground their lines at the same time. The costs of undergrounding communications lines would be shared with the attaching company to match GMP's expense. Tr. 6/11/24 at 31-34 (Burke).

64. Department witnesses agree that targeted undergrounding will help reduce outages. Mara pf. at 14, 17; Jordan pf. at 11.

b. Storm-hardened Construction for Overhead Line and Other Infrastructure

65. Spacer cable is a proven technique that GMP already uses and is prepared to expand. Burke pf. at 31.

66. Spacer cable is a fully insulated line that takes advantage of an over ½" thick steel cable messenger that sits above the insulated aerial cable, protecting that cable from tree strikes or other hazards. Burke pf. at 30.

67. The other benefit of spacer cable is that, on all but the end of cable runs, there are no cross arms, so the spacer cable three-phase configuration is only about 18" across leading to less

tree contact because it has much less surface area than the typical 8' cross arm construction.

Burke pf. at 30-31.

68. Spacer cable is expected to reduce outages by over 90% compared to traditional infrastructure. Tr. 6/11/24 at 61-62 (Burke).

69. GMP augments spacer cable construction with circuit tie reclosers and other automated technology to isolate faults on the system and create redundancies, along with poles of appropriate height, strength, and age. Burke pf. at 29.

70. The Department agrees that spacer cable is a viable option for improving system reliability, Mara pf. at 18, and considers it likely that it will eliminate most outages in Zone 1. Mara pf. at 30.

71. For example, during one recent major storm, eleven trees from outside the right-of-way were laying on a forested section of distribution line between Sharon and Strafford, VT. Customers in that area did not experience an outage due to those trees because the overhead lines were rebuilt with storm hardened spacer cable. When the crews completed restoring other outages elsewhere, they safely removed these trees from that line. Burke pf. at 10.

c. Customer Storage

72. Battery storage is a proven and flexible distributed energy resource, providing customers with a host of benefits in addition to the primary purpose of providing backup power, including peak demand reduction, voltage regulation, reactive power, frequency regulation, and energy time shifting. Castonguay pf. at 23-25.

73. As GMP analyzes distribution circuits and looks at the best resiliency measures for each zone in its system, there will be a portion of customers where individual storage is the optimal solution to achieve zero outages. Castonguay pf. at 25.

74. This will typically be in Zone 4, focused on the rural, remote ends of the circuit. Castonguay pf. at 25.

75. In Zone 4 the customer per mile count is very low and burying or hardening every last mile of distribution feeder may not be the right approach, particularly when the layered benefits of storage are considered. Castonguay pf. at 25.

76. In other words, GMP will define Zone 4 by ensuring that is where deploying a storage solution to a customer is the right solution: when the net cost of the system, after accounting for the benefits provided by the other battery use cases, is lower than undergrounding a line at the end of a circuit, so that storage is the most cost-effective approach. Tr. 6/11/24 at 119 (Castonguay).

77. This deployment will resemble the approach piloted in GMP's Grafton Resiliency Zone Pilot, where GMP partnered with customers to offer an installed residential battery owned and operated by GMP as a grid asset with no lease payments. Castonguay pf. at 28.

78. The overall investment to install a battery would mirror an installation under GMP's existing Energy Storage System tariff, except that there is no customer lease contribution. Castonguay pf. at 29-30.

79. Even without the customer lease payment, the net cost of each storage installation based on recent filings for GMP's tariff and pilot offerings is currently \$2,000-3,000 relative to the \$23,000 total system cost. Tr. 6/11/24 at 129-30 (Castonguay).

80. Based on recent updates on Regional Network Service (RNS) charges from ISO New England, as well as potential additional value from frequency regulation markets, GMP anticipates that this net cost will continue to decrease with the potential to break-even without any customer contribution. Tr. 6/11/24 at 119, 129-31, 147 (Castonguay).²⁴

81. Upon approval of the ZOI, before any battery systems are installed, GMP will develop and file a compliance tariff or rider setting forth the specific eligibility and terms for customers who qualify for a utility-provided battery in Zone 4. Tr. 6/11/24 at 124-25 (Castonguay).

ii. Capital Project Selection

82. GMP will first identify ZOI work at the circuit level using criteria developed and approved in its prior Climate Plan to identify the circuits most in need of reliability and resiliency work. Burke pf at 25-26.

83. These selection criteria, also set out in GMP's current IRP, include

- Type, age, condition, and location of asset;
- The number of customers served by each circuit;
- Outage hours and overall reliability of the existing line and infrastructure;
- Review of where the project falls within the 20 least reliable circuits; and
- The critical facilities and community resources served by the circuit.

²⁴ These new values have not yet been modeled because the new RNS values came in after GMP submitted testimony in this case, while other value streams are potential future benefits that are not yet known at the time of filing. Tr. 6/11/24 at 148 (Castonguay).

GMP's selection balances all these criteria along with information directly from field workers and continued assessment of outage improvements based upon factors such as permitting, availability of equipment, personnel, and materials, and prioritizing multiple project benefits where possible. Burke pf. at 25-26.

84. In addition, GMP will consult indicators of community vulnerability, such as the CDC's Social Vulnerability Index ("SVI") and the Vermont Climate Council's newly released Municipal Vulnerability Index ("MVI") that includes numerous metrics on community vulnerability factors. Tr. 6/11/24 at 28-29 (Burke), 115-17 (Castonguay).

85. These vulnerability tools will become additionally helpful once GMP completes the first component of ZOI work on the most impacted circuits—which also overlap with areas of vulnerability—in order to focus and prioritize future ZOI work. Tr. 6/11/24 at 137-39 (Castonguay).

86. Once priority circuits are identified, individual projects will be selected consistent with the selection criteria and applying field assessments and alternatives analyses to determine the best ZOI resiliency solution. Burke pf. reb. at 12-14; Burke pf. at 25-27. As discussed above, these planning determinations will be documented for each project.

iii. Level of Investment and Selected Work

87. GMP has completed high-level project planning on 41 circuits identified through the above selection criteria. These include the two circuits, the EJ-G7 and the 56G1, in which GMP plans to complete all zones within the circuit to demonstrate ZOI effectiveness. Tr. 6/11/24 at 87 (Burke); Exhs. GMP-Cross-1 and GMP-Cross-2.

88. These 41 circuits begin with GMP's "20 least reliable" list provided in its annual Commission Rule 4.900 report and propose approximately \$125M of T&D investments on unhardened lines on those worst-performing circuits. The EJ-G7 is the worst-performing circuit on GMP's system and is included in this amount. Tr. 6/11/24 at 87-89 (Burke); Exh. GMP-Cross-1.

89. GMP further scoped work on the circuits with reliability metrics just outside of the 20-worst list. These are approximately the next 20 least reliable circuits which are in close proximity to the circuits on the least reliable list and are experiencing heavy impacts from weather similar to the 20 least reliable circuits. This group of circuits includes the 56G1 circuit, which contains segments that would be ranked among the most reliability-challenged but falls outside of the 20-least reliable list due to previously completed resiliency work in Zone 1. Burke pf. reb. at 16; Tr. 6/11/24 at 89-91 (Burke).

90. The estimated cost to complete ZOI T&D work on Zones 1-3 on this second list of circuits is about \$106M. Tr. 6/11/24 at 90-91 (Burke); Exh. GMP-Cross-2.

91. Together, this high-level project planning has identified \$230M in T&D investments. Tr. 6/11/24 at 91 (Burke).

92. In connection with storage investments in the remote Zone 4 areas, this planned investment would significantly reduce or eliminate outages for over 50,000 customers, all who are in the most impacted circuits in the state. Tr. 6/11/24 at 55 (Burke).

93. These circuits also align with communities that the CDC Social Vulnerability Index, used earlier as part of GMP's Climate Plan selection criteria for community-wide resiliency

solutions, indicates have higher vulnerability and would benefit more from resiliency work. Tr. 6/11/24 at 28-29 (Burke).

94. In addition, this level of work—both in the number of customers benefitted and the number of challenging circuits addressed—will allow GMP to begin to bend the curve of increasing storm restoration costs as the focus of restoration activities can shift and narrow as ZOI work is completed. Tr. 6/11/24 at 54-55, 57-58 (Burke); Castonguay pf. at 26.

95. To accomplish this scoped T&D work, GMP is seeking an “up to” cap of \$250M in additional capital investment above the MYRP capital limits, with the total investment subject to project completion and approval. Burke pf. at 12-13.

96. This level of investment is further supported by GMP’s experience with this hardening work and their estimate of what can be achieved in addition to work supported by the MYRP limits over the remainder of the regulation plan period based on initial commitments from material suppliers and the undergrounding machine contractor. Burke pf. reb. at 20.

97. As such, this level of investment responds to the urgent need to address quickly and at scale the damage and costs from climate disasters in the hardest hit areas of Vermont, based on what GMP is able to reasonably deliver to customers in the next two years. Burke pf. reb. at 20.

98. GMP’s proposal also contains \$30M in customer storage investments. Castonguay pf. at 6.

99. \$20M of this investment will be focused on completing full ZOI circuits on the EJ-G7 and 56G1 circuits in connection with the planned distribution hardening. Castonguay pf. reb. at 8; Burke pf. reb. at 17.

100. The remaining \$10M investment will be prioritized through the project screening criteria, including through the use of Vermont's MVI tool to identify vulnerable customers to prioritize, in order to bring storage to those who need it most. Tr. 6/11/24 at 115-17 (Castonguay).

101. These customer storage installations will be used over undergrounding or other solutions when the net cost of the battery is advantageous when compared to the cost of upgrading the infrastructure. Tr. 6/11/24 at 119 (Castonguay).

102. GMP has high confidence that the benefits of avoided storm expense will exceed the incremental costs associated with the work when storms hit within areas that have already been storm hardened through this proposal. Tr. 6/11/24 at 50 (Burke). 33% of all outages over the past three years are on the 41 circuits that GMP is focusing on in its proposal—making these circuits the most cost effective for zero outages work. Tr. 6/11/24 at 99 (Burke).

iv. Further delay or limited implementation of ZOI projects is not in customers' best interests.

103. The Department expresses concern about moving forward with the investment GMP seeks in this initiative without a comprehensive master plan for this work. Poor pf. at 6-7.

104. However, the Department acknowledges that there have been significant increasing storms since the MYRP was approved, Margolis pf. at 9, and does not dispute the significant costs customers have incurred as a result. Tr. 6/11/24 at 172-73 (Poor).

105. The Department further agrees that there is an opportunity to increase investment in measures that advance resiliency and reliability if such investments can be (1) proven to be cost-effective and are (2) tied to performance metrics and compensation. Poor pf. at 6-7.

106. The Department's preferred recommendation (Option I) asks the Commission to deny the petition, instead requiring additional analysis, an overall cost-benefit estimate, and comprehensive planning before any specific projects for ZOI work commences. Poor pf. at 11-12; Poor pf. surreb. at 7-9; Tr. 6/11/24 at 176 (Poor).

107. Department witness Ms. Margolis acknowledged that this approach would have the likely effect of delaying ZOI work almost two and a half year—until sometime in GMP's FY27 at the earliest. Tr. 6/11/24 at 187-89 (Margolis). In addition to the delay for customers currently experiencing storm impacts, contractors may become unavailable to do the work and materials costs may increase. Burke pf. reb. at 18-19; Tr. 6/11/24 at 63-64, 96-97 (Burke).

108. Relatedly, there are financial costs to GMP and customers if ZOI work starts and stops, such as mobilization costs for undergrounding machines and the ability to secure contractors. Tr. 6/11/24 at 96-97 (Burke).

109. However, the initiatives GMP will pursue are already proven solutions. These projects are replacing lines that are no longer performing to the standard that GMP and customers need in the face of climate change, and there is nothing about these solutions that requires further analysis to understand how to cost-effectively deploy them. Burke pf. reb. at 18.

110. GMP will also roll ZOI work into its future IRP planning along with additional customer outreach. Tr. 6/11/24 at 152-53 (Smith).

111. The Department's proposal to develop and review a full specific project list in advance is contrary to the proven framework proposed here, which includes a defined and Commission-approved screening criteria and a capital planning process that has been in place for many years and was approved again in the MYRP. Burke pf. reb. at 18.

112. The Department's proposal is also operationally inefficient and inflexible—and therefore not in the best interest of customers. Authorization to engage in the work coupled with a clear regulatory framework to select projects for review and approval after construction is needed now in order to engage the required resources and ramp up the work. Burke pf. reb. at 18-19.

113. Recognizing the value in beginning some ZOI investment now, the Department offered alternative recommendations in which GMP would be able to make limited investments of up to \$50M (Option II), or of up to \$80M on two specific ZOI circuits (Option III). Poor pf. surreb. at 8-9; Tr. 6/11/24 at 178-79 (Poor).

114. Option III is the Department's second choice after Option I. Poor pf. surreb. at 7-9; Tr. 6/11/24 at 178-79 (Poor). Under this alternative, GMP would only be allowed to pursue work on two specific circuits – the EJ-G7 and 56G1 – which would only benefit approximately 5,000 customers. Tr. 6/11/24 at 54-55 (Burke).

Discussion

In this first component of ZOI work GMP proposes up to \$250M in T&D projects, together with up to \$30M in customer storage solutions, in order to deliver improved reliability, resiliency and related storm cost savings to customers. To implement this work quickly for customers in the most critical areas, GMP has already completed high-level project planning on 41 circuits identified using the Climate Plan selection criteria. This includes the two circuits on which GMP plans to complete all zones within the circuit to demonstrate ZOI effectiveness (EJ-G7 and 56G1) but goes well beyond those circuits to ensure that customers in all of GMP's

hardest hit areas start to see improvements soon, with associated reductions in storm restoration costs in these areas.²⁵

The 41 circuits prioritized in this first component of GMP's ZOI include most of GMP's "20 least reliable circuits," and the planned work would significantly reduce or eliminate outages for over 50,000 customers, all who are in the most impacted circuits in the state. These circuits also align with communities that the CDC Social Vulnerability Index, used earlier as part of GMP's Climate Plan selection criteria for community-wide resiliency solutions, indicates have higher vulnerability and would benefit more from resiliency work. And importantly this work also covers areas that represent approximately 33% of the total outages on GMP's system over the past three years. Department witnesses Mr. Jordan and Mr. Mara both expressed the opinion that GMP's ZOI work is targeting the right areas.

More than 80,000 GMP customers had a zero-outage experience in 2023, mostly in GMP's more urban circuits, indicating that zero outages are in fact experienced by many GMP customers and is an achievable goal. However, that experience is not evenly distributed, with circuits in rural, more forested areas experiencing far lower levels of reliability, particularly in southern Vermont, as the data shows. And as indicated by GMP's evaluation of MVI and SVI data, customers in these areas with lower reliability also tend to be more vulnerable on income and other metrics, which highlights for the Commission the critical importance of advancing this work as soon as possible to address these inequities.

²⁵ Tr. 6/11/24 at 87 (Burke); Exhs. GMP-Cross-1 and GMP-Cross-2.

Based on the selection and screening criteria used to develop the initial list of ZOI projects, as well as the proven success of these measures, GMP has confidence that as storms hit where the work is performed the benefits of the work will exceed the costs of this initial component of ZOI work. And though it is difficult to estimate the exact level of savings that will occur based on the unpredictability of storms, from past experience GMP knows that components of this initiative will dramatically reduce outages, improve reliability, and deliver cost savings for customers—in addition to improving safety and overall community resilience—when storms hit in these areas again.

While the Department's technical experts generally agree that the type of work proposed will improve reliability and agree that this component of ZOI work is targeted in the right areas, the Department's overall position would effectively delay the delivery of these benefits for customers for years, in favor of more planning. The Commission concludes that this delay is not in the best interests of customers. The ZOI work proposed here would significantly improve reliability and reduce or eliminate outages for 50,000 customers, all who live and work in areas currently experiencing the greatest storm impacts and would be implemented by the time the Department's recommended planning is concluding. For the same reason, the Department's alternative Option III is also not in the best interest of customers. It would reach only 5,000 customers by contrast and do far less to bend the curve of increasing storm costs borne by all of GMP's customers.

The Commission also concludes that the established accounting and regulatory framework, coupled with reporting metrics discussed below and further integration of future ZOI

planning into GMP's IRP and regulation plan processes, will address the Department's concerns while allowing this needed work to go forward for customers.

E. Measuring ZOI Performance

115. GMP and the Department agree that looking at the outcomes and measuring success is important, and that this initial implementation of the ZOI offers an opportunity to learn and start developing metrics that are suitable in the long run for measuring resiliency and reliability.

Burke pf. reb. at 39.

a. *Agreed-upon Data Reporting Items*

116. The parties have agreed upon 28 data reporting items proposed by GMP and based on suggestions from the Department as set out below. Tr. 6/11/24 at 193 (Margolis); Exh. DPS-AM-5; Exh. GMP-Cross-8; GMP Post-H'g Br. at 33-35. The Commission will require reporting on these 28 data reporting items. For reference, the item numbering is retained from Exh. GMP-AM-5:

#	Metric	Granularity	Type	Source
1	Total Customer CEMI (Customers Experiencing Multiple Interruptions) numbers by district (0 to max)	Systemwide	Performance	GMP, Exh. GMP-MB-17
2	GMP System Miles Undergrounded in FY	Systemwide	Attribute	GMP, Exh. GMP-MB-17
3	GMP System Miles Storm hardened in FY	Systemwide	Attribute	GMP, Exh. GMP-MB-17
4	Number of storage systems and total kW installed under ZOI	Systemwide	Attribute	GMP, Exh. GMP-MB-17
5	Battery type/size installed under ZOI, by manufacturer	Systemwide	Attribute	GMP, Exh. GMP-MB-17

6	Number of monthly peaks during which discharge successfully occurred during the RNS peak and the total capacity available during discharge (included with ESS systems in Metric 40)	Systemwide	Performance	GMP, Exh. GMP-MB-17
7	Whether the batteries were successfully discharged during the ISO New England annual forward capacity peak and the total capacity available during that discharge (included with ESS systems in Metric 41)	Systemwide	Performance	GMP, Exh. GMP-MB-17
8	Financial savings from peak shaving actually achieved (included with ESS systems in Metric 42)	Systemwide	Performance	GMP, Exh. GMP-MB-17
9	EAP Customers participating in ZOI Storage	Systemwide	Attribute	GMP, Exh. GMP-MB-17
10	Critical Medical Care Customers participating in ZOI Storage	Systemwide	Attribute	GMP, Exh. GMP-MB-17
11	SAIFI/CAIDI for Storage Customers by circuit (see ZOI by circuit tab)	Recommend Systemwide and by ZOI circuit	Performance	GMP, Exh. GMP-MB-17
12	% existing miles storm hardened	By ZOI circuit	Attribute	GMP, Exh. GMP-MB-17
13	% additional (or total) storm hardened	By ZOI circuit	Attribute	GMP, Exh. GMP-MB-17
14	% existing miles undergrounded	By ZOI circuit	Attribute	GMP, Exh. GMP-MB-17
15	% additional undergrounded	By ZOI circuit	Attribute	GMP, Exh. GMP-MB-17
16	% Zone 4 customer storage installed	By ZOI circuit	Attribute	GMP, Exh. GMP-MB-17
17	SAIFI	By ZOI circuit	Performance	GMP, Exh. GMP-MB-17
18	CAIDI	By ZOI circuit	Performance	GMP, Exh. GMP-MB-17

19	SAIFI/CAIDI average for storage customers per circuit	By ZOI circuit	Performance	GMP, Exh. GMP-MB-17
23	CELID (customers experiencing long interruption durations - 12 hours or more in the year)	Systemwide	Performance	PSD, Jordan Surrebuttall, p. 6
30	SAIFI with major storms	By ZOI circuit	Performance	PSD, Jordan Surrebuttall, p. 6
31	CAIDI with major storms	By ZOI circuit	Performance	PSD, Jordan Surrebuttall, p. 6
32	Time to restore service	By ZOI circuit	Performance	PSD, Margolis PFT, p. 15
33	Critical facilities	By ZOI circuit	Attribute	PSD, Margolis PFT, p. 16
34	Total customer minutes interrupted	By ZOI circuit	Performance	PSD, Margolis PFT, p. 16
35	Percent of critical facility outages	By ZOI circuit	Performance	PSD, Margolis PFT, p. 16
36	Time to restore 90% of customers	By ZOI circuit	Performance	PSD, Margolis PFT, p. 16
37	Number of customer outages exceeding 120 hours (also 24, 48, and 96 hours)	By ZOI circuit	Performance	PSD, Margolis PFT, p. 16

117. GMP will report Items 4 and 5 for all Zone 4 ZOI customers receiving storage. GMP Post-H'g Br., Attachment 1.

118. For Items 9 and 10, GMP clarified that it will report these based on customer status at the time the Zone 4 ZOI customer is signed up for storage. GMP Post-H'g Br., Attachment 1.

119. For Item 16, GMP will report the percentage of Zone 4 customers with installed storage relative the total number of identified Zone 4 customers within each circuit. GMP Post H'g Br., Attachment 1.

120. Item 19 as presented in Exh. DPS-AM-5 duplicates Item 11 and will be reported once. This Item was taken from Exh. GMP-MB-17, where it appears on the "ZOI by circuit" tab.

121. GMP proposed Item 20 to track "circuit breaker lockouts" in response to Mr. Mara's testimony which sought measurement of Zone 1 spacer cable performance. Exh. GMP-MB-17; Mara pf. surreb. at 4. GMP withdrew this suggested item after considering Mr. Mara's surrebuttal testimony which questioned the value of this item. *See* GMP Post-H'g Br. at 34, n. 71; Mara pf. surreb. at 4. This item can instead be addressed through the proposed ZOI-specific SQRP update to measure outages that occur between protective devices on completed ZOI circuits. *See* GMP Post-H'g Br. at 34, n. 71.

122. With respect to Item 23, the Department did not propose a specific CELID standard to track and there are multiple different options. Tr. 6/11/24 at 195 (Margolis). GMP proposed in briefing to track CELID-S, as defined under IEEE 1366.²⁶ *See* GMP Post-H'g Br., Attachment 1.

123. Items 30 and 31 will be reported under the identical Items 17 and 18 above. GMP agrees that major storms should not be excluded from these reporting items as proposed by Mr. Jordan and thus will report Item 17 and 18 inclusive of major storm events. Burke pf. reb. at 35.

²⁶ IEEE 1366 is the Institute of Electrical and Electronics Engineers (IEEE) "Guide for Electric Power Distribution Reliability Indices," widely applied by utilities to standardize reliability reporting.

124. Items 33 and 35 relating to critical facilities do not define what critical facilities are, but they may be evaluated through existing data taken from the State's MVI until further development or clarification, if needed. Tr. 6/11/24 at 115-17 (Castonguay).

b. Data reporting items to be defined in later proceedings

125. Three potential reporting items were proposed by Department witness Claire McIlvennie to be reviewed and refined by GMP as part of follow-up statewide resilience proceeding recommended by Ms. Margolis. They are listed as Items 24-26 on Exh. DPS-AM-5, and relate to "environmental justice populations and municipalities" and "customer experience of outages." Claire McIlvennie, DPS ("McIlvennie") pf. surreb. at 26; Margolis pf. surreb. at 16.

126. To the extent Items 24-26 proposed by Ms. McIlvennie may be appropriate for this type of reporting, they require further development because they are not fully defined and provide several measurement options. Item 26, in particular, is not defined in testimony or the supporting citation. McIlvennie pf. surreb. at 24, n. 57. GMP has expressed openness to further engagement on these topics through the process recommended by Ms. McIlvennie. GMP Post-H'g Br. at 35.

127. Finally, the Department proposed five additional penalty metrics tied to financial penalties that increase above a target threshold. GMP does not agree that these should be utilized; these metrics are discussed in connection with performance penalties in Section V(F), below. Tr. 6/11/24 at 193-94 (Margolis).

Discussion

The parties agree that ZOI should include a comprehensive set of data reporting requirements to measure and track the performance of ZOI work, and the two parties largely agree on what items to include in this requirement. All the data reporting items listed above have been agreed upon, and with the exception of Items 24-26 which are to be considered in future proceedings, the Commission will require reporting on each listed data item as part of GMP's MYRP annual report.

F. Financial Risk and Performance Mechanisms

i. Department-Proposed Penalty Metrics

128. As noted elsewhere, the Department has proposed new penalty metrics that it asserts would hold GMP accountable for ZOI performance, in addition to recommending that GMP's SQRP be updated to incorporate performance of completed ZOI projects. With regard to the new penalty metrics, the Department recommends five metrics be applied immediately while GMP begins preliminary ZOI work under this MYRP, until refined permanent metrics are developed in the DPS-recommended master planning process. Poor pf. at 12; Jacob Thomas & Sean Foley, DPS ("Thomas & Foley") pf. at 12.

129. Each of these interim metrics were developed by DPS witness Kevin Mara. Though the Department characterizes these penalty metrics as performance-based rate making, Mr. Mara did not develop these metrics with penalties in mind. Thomas & Foley pf. at 16-17; Tr. 6/11/24 at 207-08 (Mara). Each of Mr. Mara's proposed metrics are discussed in turn below.

130. In Mr. Mara's view, penalty metrics should provide a measurable goal to determine if an investment is successful; that goal should be actionable. Mara pf. surreb. at 3, 6-7.

131. Department witnesses Mr. Foley and Mr. Thomas agree that the levels at which a performance target is set are important when developing a new penalty. Tr. 6/11/24 at 219 (Thomas & Foley).

132. If performance targets are unrealistic, a new approach could introduce significant uncertainty and even financial risk. Tr. 6/11/24 at 219-20 (Thomas & Foley).

133. Mr. Mara also notes that because GMP is starting this initiative in focused areas of poor performance, measuring and monitoring progress would be a challenge if only total system indices are used. Mara pf. at 14; Tr. 6/11/24 at 202 (Mara).

134. None of the five metrics proposed by DPS have been used before in the State of Vermont, and, other than the one penalty metric requiring CEMI reporting, there is no evidence that these metrics have been used in any other jurisdiction as proposed here. Tr. 6/11/24 at 218 (Thomas & Foley), and at 203 (Mara) (explaining that DPS Penalty Metric 29 has not been applied in Vermont or any other jurisdiction to Mr. Mara's knowledge).

a. *SAIFI and SAIDI on rural feeders (DPS Penalty Metrics 21 & 22 on DPS-AM-5)*

135. DPS proposes a 33% improvement target in SAIFI and SAIDI for "rural" feeders. Mr. Mara states that these two metrics are each intended to monitor reliability where GMP intends to invest in its distribution system first, in rural areas. Mara pf. 28.

136. As used by Mr. Mara, "rural feeders" is not a defined term, but was developed by Mr. Mara to represent feeders with customer density below GMP's system-wide average. Thus, it

represents about half of GMP's entire system, and it does not take into account the location or geography of the circuit. Mara pf 28-29; Tr. 6/11/24 at 200-01 (Mara).

137. According to Mr. Mara, GMP has 154 rural circuits. Mara pf. at 29.

138. Mr. Mara arrived at the 33% improvement goal for all rural feeders as a whole by assuming GMP could in this initial set of work fully complete ZOI on the twelve rural circuits with the worst SAIFI. Mara pf. at 29-30.

139. The Department's alternative recommendation would allow GMP to complete only two circuits under the \$80M cap. Tr. 6/11/24 at 201 (Mara). Neither the Department's alternative recommendation nor GMP's full proposal here would approach ZOI completion on enough circuits to significantly alter the average reliability over 154 circuits in this initial set of projects.

140. The Department's expert agreed that an alternate approach to measuring reliability performance could be to focus performance measures just in the areas—meaning the circuits or zones—where the ZOI work is actually completed. Tr. 6/11/24 at 202 (Mara). This is the approach recommended by Mr. Jordan and Ms. Flint in surrebuttal using an update to the SQRP. Jordan pf. surreb. at 5; Carol Flint, DPS ("Flint") pf. surreb. at 2; Tr. 6/11/24 at 110 (Jordan).

b. Rolling average of storm costs (DPS Penalty Metric 27 in DPS-AM-5)

141. DPS recommends a penalty metric that requires reduced storm repair costs over GMP's rolling five-year average of storm costs based on historical storm data. Specifically, it would require GMP to lower storm costs to an average of \$13M per year in major storm expense to avoid penalty. Mara pf. at 30-31.

142. This metric is also proposed as a system-wide metric because it requires overall storm cost reduction across GMP's territory. Tr. 6/11/24 at 205 (Mara). Mr. Mara separately agreed that using system-wide metrics would not be appropriate for the targeted ZOI work GMP proposes here. Mara pf. at 14; Tr. 6/11/24 at 202 (Mara).

143. Between 2022 and April 2024, GMP has incurred about \$65M of major storm costs. Averaged over five years, instead of the two and a half years it was incurred in, that is already approximately \$13M. Tr. 6/11/24 at 207 (Mara).

144. Therefore, applying this metric in the interim period before GMP's next MYRP would mean that GMP could not have any further major storm expense on its entire system for the rest of 2024, all of 2025 and all of 2026 to avoid a penalty. Tr. 6/11/24 at 207 (Mara).

c. Battery Failure to Start Index (DPS Penalty Metric 28 in DPS-AM-5)

145. DPS seeks to confirm the performance of customer-sited storage as one of its proposed penalty metrics. GMP already reports significant residential battery information yearly, and has proposed to do the same for any storage added through ZOI, as noted above.

146. GMP has not identified any occasion in the historical data where a battery did not respond at all during an outage. Castonguay pf. reb. 17.

147. In response to Mr. Mara's recommendation that battery performance be measured to ensure it works for customers, GMP proposed tracking a range of reliability, equity, and safety metrics that capture the performance of batteries during outages. Castonguay pf. at 17.

148. In response in surrebuttal, Mr. Mara continues to maintain that a penalty metric specifically for “failure to start” is warranted—and he lowered the goal threshold from 5% failure to start to 1%, given GMP’s evidence of strong performance. Mara pf. surreb. at 5.

149. Separately, the Department notes that the current definition of “outage” in PUC Rule 4.900 may not adequately measure outcomes for storage customers during storms. Therefore, Mr. Mara and Mr. Jordan propose that Commission Rule 4.900 should be updated with definitions to account for the effect of grid outages on customers with storage. Tr. 6/11/24 at 211-12 (Mara); Mara pf. surreb. 5-6; Jordan pf. surreb. 6.

d. FOHMY (DPS Penalty Metric 29 in DPS-AM-5)

150. DPS proposes a penalty measured against forced outages per hundred miles of transmission per year, known as FOHMY, which is typically a transmission line standard. Mr. Mara suggests that it be used as a way to measure spacer cable performance in GMP’s Zone 1. Mara pf. at 30; Tr. 6/11/24 at 202-03 (Mara).

151. This metric would only apply to lines on GMP’s system with spacer cable. Tr. 6/11/24 at 204-05 (Mara).

152. DPS did not have a recommendation as to whether this metric would apply to ZOI-installed spacer cable or all spacer cable on GMP’s system. Tr. 6/11/24 at 205 (Mara).

153. There is no specific standard in Vermont or any other jurisdiction for applying FOHMY to distribution lines rather than transmission lines. Tr. 6/11/24 at 203 (Mara).

154. Transmission line rights of way are generally cleared to 80’ or more, while GMP’s distribution lines are about 25’. Tr. 6/11/24 at 203-04 (Mara).

155. Mr. Mara confirmed that he did not account for this difference in recommending this metric or setting its standard for a penalty. Tr. 6/11/24 at 203-04 (Mara).

156. Mr. Mara also explained that it is important to focus on a reasonable time frame for this metric because the threshold for meeting this metric is so small. Mara pf. surreb. at 4 (noting that if two example circuits had completed Zone 1 hardening, the metric would require less than 0.5 outages per year). Mr. Mara did not recommend what that time frame would be.

e. *CEMI-8 (Not listed in DPS-AM-5, but proposed by Mr. Mara, Mr. Thomas, and Mr. Foley in surrebuttal testimony)*

157. IEEE 1366 provides an index for measuring customers who experience multiple interruptions (CEMI). Mr. Mara has recommended that GMP report CEMI-8—the number of customers experiencing eight or more outages a year. Mara pf. at 26.

158. In response to Mr. Mara's and Mr. Jordan's testimony seeking more granular data on customer outages in its territory, GMP proposed reporting comprehensive CEMI statistics for all customer experiences (CEMI-0 to CEMI-max). Exh. GMP-MB-17, (metric 50); Exh. DPS-AM-5 (metric 1); Tr. 6/11/24 at 208 (Mara).

159. While the Department couches this as a penalty metric, it simply proposes a penalty if GMP does not file the report itself. Exh. DPS-JMT-8; Tr. 6/11/24 at 220-21 (Thomas & Foley).

f. *DPS mechanism for applying penalties*

160. DPS's proposed level of penalty for each of its five-penalty metrics is based on a 50-percent share of GMP's net income ratio for ZOI work as calculated by the Department. Tr. 6/11/24 at 218 (Thomas & Foley).

161. This methodology is novel in Vermont and not based on any Commission rule or regulation plan. Tr. 6/11/24 at 218 (Thomas & Foley).

162. DPS witness Steven Hunt recommended that incentives or penalties resulting from the Department's performance-based standards should be recorded to regulatory asset and liability accounts respectively, Hunt pf. at 8, though the Department's proposal contains penalties only. Tr. 6/11/24 at 218 (Thomas & Foley).

163. This approach is complicated, particularly because no accounting for recovering penalties is required and the timeline over which penalties would be measured is unclear given that many of the ZOI outcomes may not be measurable while the first ZOI projects are being constructed during this phase. Doane pf. reb. at 5.

ii. Service Quality and Reliability Plan

164. GMP's systemwide SQRP was last revised August 8, 2014, following the merger of GMP and Central Vermont Public Service Corporation. Flint pf. at 4.

165. As we noted in our August 31, 2022 Order approving GMP's MYRP in Cases Nos. 21-3707-PET & 22-0175-TF, GMP's SQRP is due for a review and modernization due to the passage of time; this has been recognized in prior Department filings and GMP has agreed with this assessment. Flint pf. at 4.²⁷ GMP and the DPS have already met and reviewed drafts of an updated, modernized SQRP, which the parties agree can be addressed outside of this proceeding. Flint pf. surreb. at 2-3; Tr. 6/11/24 at 227-29 (Flint); Smith pf. reb. 20-22.

²⁷ See also September 22, 2023, Service Quality and Reliability Plan Status Update by Josh Castonguay, filed in response to the Commission's August 23, 2023, Order in Case No. 23-1852-TF.

166. The Department also recommends that GMP separately add to its SQRP metrics that measure and account for the ZOI. Flint pf. at 6-7; Flint pf. surreb. at 2; Jordan pf. surreb. at 5; Tr. 6/11/24 at 110 (Jordan), 229-30 (Flint).

167. In its initial testimony, the Department recommended that major storm events no longer be excluded from SQRP reliability metrics. Jordan pf. at 16-17; Flint pf. at 7. In surrebuttal, Department witnesses made clear that this recommendation should apply to completed ZOI areas. Flint pf. surreb. at 2; Jordan pf. surreb. at 5; Tr. 6/11/24 at 110 (Jordan), 229-31 (Flint).

168. The Department noted that typically, changes to service quality plans are negotiated after the conclusion of the case that generated the need for the update, which provides time to define and right-size the metrics to be reported. Tr. 6/11/24 at 233 (Flint).

169. Therefore, the Department recommends that a revised SQRP be filed within six months of any approval in this case. Flint pf. surreb. at 2; Tr. 6/11/24 at 230-31(Flint).

170. Although GMP initially rejected the Department's suggestion that outages from major storms be included generally in the SQRP systemwide, after review of the Department's surrebuttal and the reasoning behind it, GMP agrees that if its petition is approved it is appropriate for the SQRP to be amended to add a set of metrics to measure outcomes in ZOI zones as the work in them is completed, consistent with the Department's recommendation. Tr. 6/11/24 at 23 (Burke).

171. The SQRP includes existing formulas and metrics to address reliability and resiliency performance systemwide, and it also includes an accountability measure that imposes penalties if GMP does not meet goals. GMP noted that applying that framework to a ZOI-specific addition to

the SQRP would make sure that GMP's investments are performing the way GMP anticipates.

Tr. 6/11/24 at 23-24 (Burke).

172. GMP agrees that this SQRP addition could be filed within six months of ZOI approval, including time to prepare a draft and consult with the Department. Tr. 6/11/24 at 93-94 (Burke).

Discussion

GMP has agreed to the Department's recommendation to amend GMP's SQRP to add measurements for completed ZOI investments and both GMP and the Department confirmed that this should be ordered as a fast-follow process. Adding this to GMP's SQRP is the appropriate way to track outcomes and hold GMP responsible for delivering on this initiative. The SQRP is continual, not time-limited; has provisions for review, amendment, and improvement; and is a well-understood framework for the calculation of utility reliability and service penalties. As explained by Ms. Flint, adding to GMP's SQRP to account for ZOI is most appropriate as follow-on process to the case that necessitates an update, which is what the Department has proposed here.

The record makes clear that this SQRP approach is better than the penalty mechanisms proposed separately by Mr. Mara, Mr. Thomas, and Mr. Foley. As acknowledged during the hearing, those five metrics, as well as the penalty mechanism itself, are entirely new to Vermont and are not based on any established standards or methodology. All three witnesses acknowledge the potential risks inherent with establishing new penalty mechanisms, including that the measures, if not set properly, could end up discouraging the type of work desired. Mr. Mara also

cautioned in his testimony that systemwide measures should not be used because GMP, at this stage, is proposing target ZOI work in specific areas of its least reliable circuits. Nevertheless, most of his metrics are systemwide, or at least apply broadly to areas that will not be addressed through this initial ZOI work, particularly if limited as the Department proposes. As a result, these metrics are neither tied to actual ZOI work on specific circuits nor to achievable outcomes, and they lack any baselining to ensure they are calibrated to the scale of the initiative.

The alternative SQRP approach recommended by Ms. Flint and Mr. Jordan avoids all of these significant problems. As proposed, it would apply to those zones where ZOI work has been completed (consistent with Mr. Mara's general recommendation that measures be targeted where the work is performed) and can be built upon the framework of established performance mechanisms and penalties in the SQRP which have been long applied and are well understood. For those reasons the Commission declines to impose the Department's five performance-based penalties and will require GMP to submit a proposed addition to its SQRP to account for ZOI consistent with this Decision within six months.

VI. CONCLUSION

For the reasons set forth above, and on the basis of the evidence in this proceeding, the Commission concludes that, with the data reporting and follow-up SQRP provisions imposed consistent with this Decision, GMP's Zero Outages Initiative is in the best interests of customers, will result in just and reasonable rates, and should be approved.

VII. PROPOSED ORDER

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

1. Green Mountain Power (GMP)'s Zero Outage Initiative proposal is approved as a Strategic Opportunity under GMP's Multi-Year Regulation Plan, specifically permitting up to an additional \$280M in capital investment under that Plan until September 30, 2026.
2. All capital projects shall be documented and accounted for as specifically set forth in GMP's Zero Outage Regulatory Accounting Proposal (Exh. GMP-LD-1) and may only be reflected in rates upon approval by the Commission.
3. Within six months of this Order, GMP shall file an amendment to its Service Quality Reliability Plan with the Commission containing a proposed addition for Zero Outage-specific measures.
4. GMP shall report on the data reporting items approved in the Commission's Decision in its Annual Multi-Year Regulation Plan as provided in that Plan.

Dated at Montpelier, Vermont, this ___ day of _____, 2024.

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PUBLIC UTILITY COMMISSION
OF VERMONT

OFFICE OF THE CLERK

FILED:

ATTEST: _____
Clerk of the Commission

VIII. Appendix: Procedural History

1. On October 9, 2023, GMP filed its Zero Outages Initiative petition via ePUC, with notification provided to the Department, for the Commission's approval and implementation pursuant to 30 V.S.A. § 218d and GMP's Multi-Year Regulation Plan. The proposed ZOI Petition was supported by the testimony and exhibits of witnesses Michael Burke, Joshua Castonguay, and Laura Doane. Case No. 23-3501-PET was assigned.
2. On November 2, 2023, the Commission issued notice of a scheduling conference.
3. On November 14, 2024, GMP filed a proposed schedule for the proceeding.
4. On November 16, 2023, the scheduling conference was held via teleconference.
5. On November 17, 2023, GMP filed a revised proposed schedule, with agreement from the Department.
6. On November 30, 2023, the Commission issued an order establishing a schedule for the proceeding.
7. On December 1, 2023, the Commission issued a memorandum providing notice of a December 7 workshop to be held in a hybrid format.
8. On December 7, 2023, the Commission issued a memorandum changing the workshop to a fully remote format via GoToMeeting. The Commission held the virtual workshop in which GMP and the Department participated.
9. On December 15, 2023, discovery commenced. All parties had the opportunity to participate in discovery, which included three rounds of requests on GMP filed by the Department and one round of requests on the Department by GMP after the Department's

testimony was filed.

10. On February 13, 2024, the Department filed a motion to extend the schedule, and another motion to further extend the schedule on March 6, 2024. The Commission granted the Department's second extension request by Order dated March 8, 2024.
11. On March 15, 2024, the Department filed its prefiled testimony and exhibits from witnesses Jacob Thomas, Sean Foley, Kevin Mara, Bill Jordan, Anne Margolis, Walter (TJ) Poor, Steven Hunt, and Carol Flint.
12. On April 5, 2024, GMP and the Department filed a joint motion to change the schedule, which was approved by the Commission by Order dated April 9, 2024. This Order was corrected to address an inadvertent error on April 16, 2024.
13. On April 15, 2024, GMP filed rebuttal testimony and exhibits from witnesses Michael Burke, Joshua Castonguay, Laura Doane, Tiana Smith, Donald Mills and Kyle Buxton.
14. On May 13, 2024, the Department filed surrebuttal testimony and exhibits of witnesses Jacob Thomas, Kevin Mara, Bill Jordan, Anne Margolis, TJ Poor, Steven Hunt, Carol Flint, and Claire McIlvennie.
15. On May 16, 2024, the Commission issued notice of an evidentiary hearing to be held May 29 (and 30, if necessary) via video conference.
16. On May 20, 2024, the Department filed a motion to reschedule the evidentiary hearings.
17. By Order dated May 22, the Commission granted the Department's May 20 motion to move the evidentiary hearings to June 11 (and 13, if necessary). This Order was followed by a memorandum dated May 31 outlining evidentiary hearing logistics.
18. The evidentiary hearing was held via video conference on June 11, 2024, with all of the

parties attending. Cross-exhibits from GMP and the Department were uploaded to ePUC and admitted to the record the morning of the hearing.

19. On June 12, the Department filed a motion to modify the briefing schedule, as discussed at the evidentiary hearing. The Commission approved this request by Order dated June 17, 2024.
20. Post-hearing briefs and proposed findings of fact and conclusions of law were filed by GMP and DPS on July 1, 2024.
21. Reply briefs were filed by GMP and DPS on July ____, 2024.