

**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 rate plan

**PREFILED DIRECT TESTIMONY OF  
ANNE MARGOLIS  
ON BEHALF OF THE  
VERMONT DEPARTMENT OF PUBLIC SERVICE**

March 15, 2024

Summary: My testimony describes current and emerging frameworks for resilience planning and measurement and recommends planning and measurement improvements and next steps to ensure the Zero Outages Initiative (“ZOI”) proposed by Green Mountain Power Corporation (“GMP” or “Company”), if approved, offers benefits and protections for ratepayers.

**Ms. Margolis Sponsors the Following Exhibits:**

- Exhibit DPS-AM-1** Q.DPS.GMP.1-74, 1-119, and 1-34
- Exhibit DPS-AM-2** Q.PS.GMP.1-107, 1-100, 1-110, and 2-33
- Exhibit DPS-AM-3** Q.DPS.GMP.2-115
- Exhibit DPS-AM-4** Table 23. Program Implementation Reporting Requirements

1 **Q1. Please state your name and occupation.**

2 A1. My name is Anne Margolis. I am Deputy Planning Director for the Vermont Department  
3 of Public Service (“Department”). My business address is 112 State Street, Montpelier,  
4 Vermont.

5 **Q2. Please describe your educational background and experience.**

6 A2. I have worked for the Department since 2012, first as Renewable Energy Development  
7 Manager and later as Deputy Planning Director. From 2009-2012, I was a Project Director  
8 for the Clean Energy States Alliance. From 2008-2009, I served as the Department’s Clean  
9 Energy Development Fund Director. I have a Bachelor of Arts degree from Dartmouth  
10 College.

11 **Q3. Have you previously testified before the Vermont Public Utility Commission**  
12 **(“Commission”)?**

13 A3. Yes. Over the past 12 years I have provided testimony in numerous cases, most recently  
14 Case No. 23-0739-PET.

15 **Q4. What is the purpose of your testimony in this proceeding?**

16 A4. My testimony describes current and emerging frameworks for resilience planning and  
17 measurement and recommends planning and measurement improvements and next steps to  
18 ensure the proposed ZOI, if approved, offers benefits and protections for ratepayers.

19 **Q5. What is Vermont’s statutory policy on utility reliability and/or resilience?**

20 A5. At the highest level, state energy policy, as articulated in 30 V.S.A. § 202a, requires energy  
21 needs be met, “in a manner that is adequate, reliable, secure, and sustainable; that ensures  
22 affordability and encourages the State’s economic vitality, the efficient use of energy

1 resources, and cost-effective demand-side management; and that is environmentally  
2 sound.” These objectives are not defined, do not include resilience/resiliency, and must be  
3 balanced through a least-cost planning framework.<sup>1</sup>

4 **Q6. How is distribution system reliability currently measured and tracked in Vermont?**

5 A6. Reliability of the distribution system is currently evaluated through a set of performance  
6 standards contained in each utility’s Service Quality and Reliability Plan (“SQRP”),  
7 including System Average Interruption Frequency Index (“SAIFI”), which measures the  
8 average number of times the average customer experienced an outage (Customers  
9 Out/Customers Served), and Customer Average Interruption Duration Index (“CAIDI”),  
10 which measures the average length of time required to restore customers who experienced  
11 an outage (Customer Hours Out/Customers Out). These indices, more specifically defined  
12 in Commission Rule 4.900, are system-wide averages that can exclude major storms for  
13 the purpose of determining performance and calculating any penalties. Mr. Bill Jordan,  
14 Ms. Carol Flint, and Mr. Kevin Mara describe these reliability metrics and the performance  
15 measurement framework in greater detail in their prefiled direct testimonies.

16 **Q7. How is distribution system resiliency currently measured tracked in Vermont?**

17 A7. It is not.

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<sup>1</sup> [30 V.S.A. § 202a.](#)

1 **Q8. How does the 2022 Comprehensive Energy Plan (“CEP”) define and differentiate**  
2 **reliability and resilience?**

3 A8. Vermont’s 2022 CEP provides the definition of resilience as adopted by the Federal Energy  
4 Regulatory Commission (“FERC”) and subsequently by the North American Electric  
5 Reliability Corporation (“NERC”): “The ability to withstand and reduce the magnitude  
6 and/or duration of disruptive events, which includes the capability to anticipate, absorb,  
7 adapt to, and/or rapidly recover from such an event.”<sup>2</sup> The CEP also adopts the framework  
8 in the U.S. Department of Energy’s *Modern Distribution Grid* report, which describes  
9 reliability as an “objective” but resilience as an “attribute.”<sup>3</sup> The framework differentiates  
10 between “reliability events” (short duration – generally less than 24 hours – over a localized  
11 geographic area, not typically classified as “Major Events” according to IEEE 1366  
12 standards) and “resilience events” (long duration – generally greater than 24 hours – over  
13 a large geographic area, typically classified as “Major Events” according to IEEE 1366  
14 standards).

15 The CEP describes reliability as, “a strictly defined term subject to specific  
16 standards, metrics, reporting, enforcement, and penalties,” including through each utility’s  
17 SQRP. It describes resilience, in contrast, as a term of art “subject to a variety of proposed  
18 definitions, with an evolving landscape of potential metrics but without specific regulatory  
19 ‘teeth.’” It also discusses potential resilience metrics that could be employed, including  
20 several offered by the U.S. Department of Energy’s Grid Modernization Lab Consortium.

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<sup>2</sup> <https://elibrary.ferc.gov/eLibrary/#>, Order Terminating Rulemaking Proceeding, Initiating New Proceeding, and Establishing Additional Procedures, 162 FERC ¶ 61,012, para. 14, FERC Dkt. No. AD18-7-000 (Jan. 8, 2018). Pp. 12-13. Accessed 12/5/20; [2022 Vermont Comprehensive Energy Plan](#), pp. 90-91.

<sup>3</sup> [2022 Vermont Comprehensive Energy Plan](#), pp. 91-92.

1 Examples of some potential metrics include (but are not limited to): time to recovery;  
2 cumulative customer-hours of outages; critical customer energy demand not served; time  
3 to recovery; or loss of assets and perishables.<sup>4</sup>

4 **Q9. How does the 2022 CEP discuss resilience planning?**

5 Q9. The *Modern Distribution Grid* framework referenced in the 2022 CEP differentiates  
6 resilience planning from reliability planning: “Resilience planning involves assessing the  
7 potential distribution system impacts from major resilience events, while reliability  
8 planning focuses on maintaining or improving a distribution system’s performance in  
9 relation to minor outages as measured by the IEEE 1366 reliability metrics (e.g.,CAIDI,  
10 SAIDI).”<sup>56</sup> It promotes a three-pronged resilience planning approach developed by the  
11 Electric Power Research Institute (“EPRI”) that encompasses the domains of Prevention,  
12 Survivability, and Recovery:<sup>7</sup> EPRI explains these domains as:

- 13 • **Damage prevention:** the application of engineering designs and advanced  
14 technologies that harden the power system to limit damage.
- 15 • **System recovery:** the use of tools and techniques to restore service as soon  
16 as practicable.
- 17 • **Survivability:** the use of innovative technologies to aid consumers,  
18 communities, and institutions in continuing some level of normal function

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<sup>4</sup> [2022 Vermont Comprehensive Energy Plan](#), p. 93.

<sup>5</sup> U.S. Dept. of Energy, Modern Distribution Grid: Strategy & Implementation Planning Guidebook of 6/20 at 30, [https://gridarchitecture.pnnl.gov/media/Modern-Distribution-Grid\\_Volume\\_IV\\_v1\\_0\\_draft.pdf](https://gridarchitecture.pnnl.gov/media/Modern-Distribution-Grid_Volume_IV_v1_0_draft.pdf).

<sup>6</sup> In their testimonies for the Department, Mr. Bill Jordan, Ms. Carol Flint, and Mr. Kevin Mara recommend improvements to the CAIDI and SAIFI reliability metrics, as well as other metrics contained within the SQRP. My testimony will focus on resilience metrics as resilience planning frameworks.

<sup>7</sup> U.S. Dept. of Energy, Modern Distribution Grid: Strategy & Implementation Planning Guidebook of 6/20 at 31, [https://gridarchitecture.pnnl.gov/media/Modern-Distribution-Grid\\_Volume\\_IV\\_v1\\_0\\_draft.pdf](https://gridarchitecture.pnnl.gov/media/Modern-Distribution-Grid_Volume_IV_v1_0_draft.pdf).

1 without complete access to their normal power sources and readily available  
2 replacement components.<sup>8</sup>

3 **Q10. Please describe any resiliency planning framework discussed in GMP’s 2021**  
4 **Integrated Resource Plan (“IRP”) or in its ZOI Petition.**

5 A10. GMP was directed to include climate resiliency planning in its 2021 IRP pursuant to the  
6 Commission’s September 24, 2020, Final Order in GMP’s Climate Plan proceeding, Case  
7 No. 20-0276-PET. Chapter 3 of GMP’s 2021 IRP, “System Resiliency and Grid  
8 Transformation,” describes GMP’s system planning process as generally following a three-  
9 step process of Orientation, Study Development and Analysis, and Decision-making and  
10 Action. This is consistent with a framework of identifying a problem, evaluating  
11 alternatives, and selecting a solution – in other words, least-cost planning.

12 The IRP discusses the types of transmission and distribution system projects GMP  
13 might undertake, including:

14 “Service Reliability: Projects that increase reliability by reducing the  
15 number of outages, the duration of outages, or the number of customers  
16 affected by outages, such as relocating a distribution line out of the woods  
17 to the roadside.

18  
19 Service Resiliency: Projects that increase resiliency by hardening grid  
20 infrastructure and improve the ability of systems to withstand and recover  
21 from severe storms, such as using cable in conduit to underground rural  
22 single-phase lines exposed to high hazards (i.e., trees, wind).”<sup>9</sup>

23 These types of projects span the domains of Prevention, Survivability, and  
24 Recovery. The IRP references GMP’s 2020 Climate Plan, includes various general

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<sup>8</sup> Electric Power Research Institute, Electric Power System Resiliency: Challenges and Opportunities of 2/16 at 14, <https://www.naseo.org/Data/Sites/1/resiliency-white-paper.pdf>.

<sup>9</sup> [GMP 2021 Integrated Resource Plan](#), at 3-15.

1 discussions of system hardening, and discusses the criteria that will be used to rank circuits  
2 for hardening investments, including:

- 3 • 20 least reliable circuits;
- 4 • Type, age, condition, and location of asset;
- 5 • The number of customers served by each circuit;
- 6 • Outage hours and expected benefits of hardening; and
- 7 • The critical facilities served by the circuit.<sup>10</sup>

8 The 2021 IRP also includes a separate list of criteria for identification of Resiliency  
9 Zones, including whether the area:

- 10 • Has feeder backup capability;
- 11 • Is fed by radial or networked subtransmission;
- 12 • Experiences a lot of outages or long outages;
- 13 • Has no or limited broadband; and
- 14 • Has poor or no cell service.<sup>11</sup>

15 The 2021 IRP does not, however, contemplate anything approaching a ZOI-  
16 magnitude plan in the realms of Prevention (hardening) and Survivability (storage). For  
17 example, the Implementation and Action Plan portion of the IRP – which is the culmination  
18 of all the analyses in the IRP and represents the suite of activities GMP intends to  
19 implement – lists the following Transmission & Distribution Innovation activities:

- 20 • “Underground 40 miles of exposed distribution line.

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<sup>10</sup> [GMP 2021 Integrated Resource Plan](#), p. 3-18.

<sup>11</sup> [GMP 2021 Integrated Resource Plan](#), p. 3-19.

- 1 • Install 300 miles of covered wire replacing bare wire.
- 2 • Deploy 4 additional automatic fault recovery transfer systems on the distribution
- 3 system”.<sup>12</sup>

4 These 2021 IRP Implementation and Action Plan activities were established in the  
5 context of meeting 2014-era GMP service reliability targets developed in coordination with  
6 the Department and approved by the Commission in GMP’s SQRP. These include a SAIFI  
7 of  $\leq 2.4$  and a CAIDI of  $\leq 2.7$ ; both are net of outages caused by major storms and both  
8 – by virtue of being values greater than zero – nevertheless assume some outages.<sup>13</sup> Yet,  
9 GMP has since experienced the impacts of a number of major storms – including six from  
10 December 2022 to September 2023 – and is now asking for permission to make significant  
11 investments not to meet these existing targets but rather to meet a new, undefined target of  
12 “zero outages,” without proposing either corresponding metrics or targets in this case or a  
13 process to develop such metrics or targets, outside of potential future discussion with the  
14 Department in the context of GMP’s SQRP.<sup>14</sup>

15 In its petition, GMP does not propose a specific mileage number tied to the current  
16 spending request, either for undergrounded lines in Zone 3 or storm-hardened lines in  
17 Zones 1 or 2, but does discuss the “need to address over 3,500 miles by 2030,” just in Zone  
18 3 (lines that will be undergrounded wherever possible), which is 75 times the amount of  
19 undergrounding contemplated in the 3-year period covered by the 2021 IRP.<sup>15</sup> It is  
20 therefore that much more essential to establish appropriate metrics, baselines, targets, and

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<sup>12</sup> [GMP 2021 Integrated Resource Plan](#), p. 269.

<sup>13</sup> [https://puc.vermont.gov/sites/psbnew/files/doc\\_library/gmp-service-quality-plan.pdf](https://puc.vermont.gov/sites/psbnew/files/doc_library/gmp-service-quality-plan.pdf), p. 12.

<sup>14</sup> See **Exhibit DPS-AM-1**.

<sup>15</sup> Case No. 23-3501-PET, Burke PFT of 10/9/23 at 32.

1 performance measurement requirements, and to require that the appropriate level of  
2 planning is conducted before investments are made, in order to ensure that ZOI  
3 expenditures increase reliability and resilience, are in customers' best interests, and result  
4 in just and reasonable rates in the long term.

5 **Q11. If GMP's ZOI is approved, what type of planning should be done to ensure that ZOI**  
6 **expenditures increase reliability and resilience, are in customers' best interests, and**  
7 **result in just and reasonable rates in the long term?**

8 A11. GMP is seeking approval for a Strategic Opportunity Exception to its Multi-Year Rate Plan  
9 ("MYRP") to spend up to \$250 million in FY25 and FY26 above existing approved MYRP  
10 capital expenditures for an as-yet-unspecified mileage and method of line hardening, and  
11 up to \$30 million for an as-yet-unspecified number of microgrids and batteries, in yet-to-  
12 be-determined locations beyond "rural areas of southern and central Vermont where severe  
13 climate change driven storms are hitting hardest and disproportionately impacting those  
14 customers."<sup>16</sup> GMP also describes this request as just the first phase of at least two phases  
15 that would, if approved, expand the work to their entire system. From GMP's perspective,  
16 it appears equity is only achieved when all phases of the ZOI are completed – that is, when  
17 no GMP customer, anywhere, experiences an outage, ever, as measured in an unknown  
18 manner.<sup>17</sup>

19 GMP's proposal sets up a dynamic where GMP presupposes all ZOI phases are  
20 achieved and all customers receive the benefits of hardened lines or storage and therefore

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<sup>16</sup> Id. at 4-6.

<sup>17</sup> See **Exhibit DPS-AM-2**.

1 no prioritization of specific customers or communities is needed. However, because GMP  
2 is not currently asking for, nor would they receive as a result of this Petition, the  
3 Commission’s approval to make the up to \$1.5 billion investment the full ZOI could cost,  
4 there is no guarantee of subsequent phases, and no guarantee all GMP customers will  
5 receive zero-outage service.<sup>18</sup> Therefore, there is a need to prioritize specific customers  
6 and communities to receive the benefits of Phase I. This is also consistent with the  
7 Department’s *Guidance for Integrated Resource Plans* updated in April 2023, which  
8 recommends that when evaluating resources, utilities:

9 [I]dentify what communities may be most impacted by the resource,  
10 including how any benefits and/or burdens associated with the  
11 resources may be distributed....note any efforts that could be made  
12 to mitigate burdens associated with the resources particularly those  
13 on frontline and impacted communities....describe how the utility  
14 has or would engage with impacted communities and any data or  
15 metrics they intend to use to evaluate such impacts.”<sup>19</sup>

16 The Department recommends that, similar to the requirement in Case No. 20-0276-  
17 PET (GMP’s Climate Action Plan), GMP be required to integrate its ZOI planning along  
18 with its Climate Planning within its next IRP, due December 10, 2024. The ZOI petition  
19 states, “across all circuits and zones, projects of all types will be prioritized using existing  
20 climate resilience investment principles from GMP’s Climate Plan and IRP to focus on  
21 reliability-challenged areas first, while accounting for the ability to execute impactful  
22 projects quickly.”<sup>20</sup>

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<sup>18</sup> See **Exhibit DPS-AM-3**.

<sup>19</sup> Vermont Guidance for Integrated Resource Plans and 202(f) Determination Requests at 16,  
<https://publicservice.vermont.gov/sites/dps/files/documents/Guidance%20for%20Integrated%20Resource%20Plans%20and%20202%28f%29%20Determination%20Requests%20-%20April%202023.pdf>.

<sup>20</sup> Case No. 23-3501-PET, Petition of 10/9/23 at 6.

1           The Department recommends these principles and any corresponding assessment  
2 methodology – including GMP’s criteria for ranking circuits for hardening investments and  
3 criteria for identification of Resiliency Zones – be updated during the preparation of GMP’s  
4 2024 IRP to expand – or further vet – factors that relate to the impacts of resilience events  
5 on customers and communities. These could include, for example, incorporating census  
6 block group boundaries (in alignment with the scale of assessment in Act 154 of 2022, the  
7 Environmental Justice law) and relevant factors from the Vermont Municipal Vulnerability  
8 Index recently developed through the Climate Action Office, such as municipal indices of  
9 future climate vulnerabilities at the municipal scale, housing cost burden, energy and  
10 transportation burden, internet access, critical assets, and emergency services.<sup>21</sup> GMP  
11 should meaningfully engage its customers and communities as it develops the IRP and  
12 these principles and methodology in deciding which factors to ultimately select, and for  
13 determining how and where GMP will prioritize hardening, microgrid, and storage  
14 deployments under Phase I. This should include methods to identify and prioritize critical  
15 loads, including community infrastructure such as emergency shelters and grocery stores  
16 or customer-specific needs such as electric-dependent medical devices.

17           Once the principles and methodology are refined, the Department recommends  
18 GMP use them to develop a ZOI Phase I public-facing master plan that identifies specific  
19 projects that will be completed in Phase I along with cost estimates for each project. This  
20 will allow the Commission, Department, and other stakeholders to transparently

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<sup>21</sup> Act 154. An Act Relating to Environmental Justice in Vermont (2022),  
<https://legislature.vermont.gov/Documents/2022/Docs/ACTS/ACT154/ACT154%20As%20Enacted.pdf>.

1 understand how, where, and at what cost GMP will be making investments in its system to  
2 achieve either uninterrupted or near-uninterrupted service. The Department would expect  
3 the planning methodology and the Phase I master plan to encompass the domains of  
4 Prevention, Survivability, and Recovery and provide a realistic estimate of where, for how  
5 long, and under what circumstances uninterrupted service could be guaranteed. This would  
6 logically fit within GMP's 2026 MYRP, which would ostensibly be developed in 2025, on  
7 the heels of development of the 2024 IRP. However, given the confluence of worsening  
8 storms, increased dependence on electricity for transportation and heating, incoming  
9 federal funds for hardening-type work, and time-limited exemption to Act 250 for  
10 distribution system work, development of the master plan could also happen as part of the  
11 2024 IRP as soon as the principles and methodology are in place.

12 **Q12. How does GMP propose to track and measure improvements in both reliability and**  
13 **resilience?**

14 A12. GMP has not proposed any metrics in its ZOI petition to measure either reliability or  
15 resilience improvements associated with the requested additional funding to improve  
16 reliability and resilience. In discovery, GMP only discusses future work with the  
17 Department to update some SQRP metrics and does "not propos[e] to specifically align the  
18 ZOI and [the] SQRP" or to add any new MYRP metrics.<sup>22</sup> The default appears to be  
19 continued use of existing reliability metrics, with no modifications to account for either the  
20 difference between reliability and resiliency or to account for a trajectory toward "zero

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<sup>22</sup> See Exhibit DPS-AM-1.

1 outages,” a goal which GMP describes to mean “for customers not to experience  
2 outages.”<sup>23</sup>

3 **Q13. What type of tracking and measurement should be done to ensure that ZOI**  
4 **expenditures increase resiliency, are in customers’ best interests, and result in just**  
5 **and reasonable rates in the long run?**

6 A13. GMP’s success should be tracked and measured through a combination of modifications  
7 to both its reliability metrics, as discussed further in Mr. Jordan’s, Mr. Mara’s, and Ms.  
8 Flint’s testimonies, and new resilience metrics discussed below, as the Petition asks the  
9 Commission to “[a]pprove GMP’s strategic capital exception under Section IV(A)(6) of  
10 GMP’s MYRP, authorizing up to \$250M in additional [transmission and distribution]  
11 investments and \$30M in additional storage solutions to improve resiliency and reliability  
12 for customers over the final two years of the MYRP” and is therefore predicated on  
13 achieving improvements to both reliability *and* resiliency.<sup>24</sup>

14 At a high level, Mr. Jordan recommends that (a) GMP’s SQRP tariff be revised to  
15 no longer allow it to exclude major storms, and (b) the Commission require GMP and the  
16 Department to work together to arrive at new SQRP metrics for SAIFI and CAIDI and file  
17 the revised SQRP tariff for approval as a condition of approval of the ZOI. Ms. Flint  
18 recommends that GMP’s SQRP be revised and include new metrics related to energy  
19 burden, equity, and community resilience.

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<sup>23</sup> See Id.

<sup>24</sup> Case No. 23-3501-PET, Petition of 10/9/23 at 8.

1           As discussed above, reliability and resiliency are addressing different challenges,  
2           with reliability focused on shorter duration, more localized, and more frequent  
3           interruptions and resilience focused on high impact, low frequency events. Major storms  
4           are just one such type of event that a utility might make improvements to address, and the  
5           type of event could entail different sets of actions – and different metrics – across the  
6           domains of Prevention, Survivability, and Recovery.

7           The 2022 CEP states that, “[a]long with understanding how climate change will  
8           impact weather and infrastructure in Vermont, it will be necessary to develop metrics to  
9           measure the impact of investments, especially if ratepayer dollars are proposed to be  
10          used.”<sup>25</sup> Grid resilience metrics are being discussed in many venues, and an industry-  
11          accepted suite has yet to emerge. There is an extensive menu of potential resilience metrics  
12          Vermont could adopt, and the ZOI offers an excellent opportunity to begin to develop a  
13          suite of metrics suitable for Vermont. These could include both attribute-based metrics  
14          (e.g., number of line-miles hardened) and performance-based metrics (e.g., time to restore  
15          service).<sup>26</sup>

16          One example GMP and other stakeholders could examine is the extensive work  
17          being conducted in Connecticut to develop Resilience and Reliability Standards and  
18          Programs, as part of broader work to develop a Framework for an Equitable Modern Grid.<sup>27</sup>

19          The Connecticut Public Utilities Regulatory Authority (“CT PURA”) in an August 31,

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<sup>25</sup> [2022 Vermont Comprehensive Energy Plan](#), p. 92.

<sup>26</sup> For additional examples of attribute- and performance-based metrics, see Kazimierczuk, et. al., Resilient Electric Grid: Defining, Measuring, and Integrating Resilience into Electricity Sector Policy and Planning of 9/23 at 9, <https://www.pnnl.gov/sites/default/files/media/file/MOD-Plan%20Resilience%20Paper%20Final.pdf>.

<sup>27</sup> PURA’s Framework for an Equitable Modern Grid, <https://portal.ct.gov/PURA/Electric/Grid-Modernization/Grid-Modernization>.

1 2022 decision, directed distribution utilities to track the progress of resilience plans and  
2 projects. Examples include miles of tree wire, spacer cable, and undergrounding completed  
3 as well as customer and community metrics such as critical facilities and environmental  
4 justice community census blocks. These could be considered a form of attribute-based  
5 metrics.<sup>28</sup>

6 CT PURA also requires tracking of metrics related to performance during major  
7 storms. Examples include total customer minutes interrupted, percent of critical facility  
8 outages, time to restore 90% of customers, and number of customer outages exceeding 120  
9 hours. These could be considered a form of performance-based metrics.<sup>29</sup>

10 The Department recommends a similar suite of metrics be developed as part of the  
11 2024 IRP and tracked by GMP in order to allow the Commission, Department, and other  
12 stakeholders to understand how, where, and at what cost GMP will be making investments  
13 in its system to achieve uninterrupted service. While some metrics may be appropriate to  
14 consider on a system-wide basis over time, tracking others more granularly – including in  
15 the specific areas where ZOI expenditures have been made – will be critical to  
16 understanding whether and to what extent these expenditures have increased resiliency, are  
17 in customers’ best interests, and result in just and reasonable rates in the long run. The  
18 Connecticut suite of metrics is meant to be illustrative; further deliberation with input from  
19 other stakeholders – in particular communities and customers in GMP’s service territory

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<sup>28</sup> Docket No. 17-12-PURA Investigation into Distribution System Planning of the Electric Distributions Companies – Resilience and Reliability Standards and Programs, 8/31/22, at 68, [https://www.dpuc.state.ct.us/2nddockcurr.nsf/8e6fc37a54110e3e852576190052b64d/4bcecc163d47d814852588af005bca09/\\$FILE/171203RE08-083122.pdf](https://www.dpuc.state.ct.us/2nddockcurr.nsf/8e6fc37a54110e3e852576190052b64d/4bcecc163d47d814852588af005bca09/$FILE/171203RE08-083122.pdf).

<sup>29</sup> See Id.; see **Exhibit DPS-AM-4**.

1 as part of the engagement the Department recommends GMP does during development of  
2 its 2024 IRP – is warranted before settling on a final suite.

3 The selected resilience metrics should be reported annually in GMP’s SQRP and in  
4 its MYRP. Mr. Foley’s and Mr. Thomas’ joint prefiled direct testimony discusses the  
5 Department’s recommendation to set performance incentives associated with reliability  
6 and resilience metrics and tie GMP’s performance toward meeting those targets with its  
7 compensation in order to ensure risks and rewards are shared equitably between customers  
8 and the Company.

9 **Q14. Does this conclude your testimony?**

10 A14. Yes, it does.