

**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 SURREBUTTAL TESTIMONY OF
CLAIRE MCILVENNIE
ON BEHALF OF THE
VERMONT DEPARTMENT OF PUBLIC SERVICE**

May 13, 2024

Summary: Ms. McIlvennie's testimony describes current policies for environmental justice and energy equity in Vermont and recommends additional project prioritization criteria, engagement process, and assessment metrics to ensure the Zero Outages Initiative ("ZOI") proposed by Green Mountain Power Corporation ("GMP" or "Company"), if approved, serves GMP customers equitably.

Ms. McIlvennie Sponsors the Following Exhibit:

Exhibit DPS-CM-1 A.DPS.GMP.3-13

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

2 A1. My name is Claire McIlvennie. I am the Data and Equity Policy Manager for the Vermont
3 Department of Public Service (“Department”) Regulated Utility Planning Division. My
4 business address is 112 State Street, Montpelier, Vermont.

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

6 A2. I have worked for the Department since March 2020, first as a Senior Energy Policy and
7 Program Analyst and now as the Data and Equity Policy Manager. In this role, I provide
8 leadership on integrating principles of energy equity into the Department’s work. I was the
9 lead author on Chapter Three of the Comprehensive Energy Plan (“CEP”; “*Achieving CEP*
10 *Goals in a Just and Equitable Manner*”) and currently serve as the Commissioner’s
11 designee to the Interagency Environmental Justice Committee. I have been providing staff
12 support to the Just Transitions Subcommittee of the Vermont Climate Council since early
13 2021, and I recently designed and lead the execution of the Department’s 18-month
14 engagement efforts on renewable and clean electricity policies and programs in Vermont.
15 I have a Bachelor of Arts degree in Psychology and Economics from Middlebury College
16 and a Master of Science in Environmental Change and Management from the University
17 of Oxford. I am currently a PhD Candidate in Natural Resources at the University of
18 Vermont, with a focus on the intersection of the human, technology, and policy dimensions
19 of smart grid energy systems.

1 **Q3. Have you ever testified before the Vermont Public Utility Commission**
2 **(“Commission”)?**

3 A3. Yes, I have provided testimony in Case Nos. 20-1219-PET, 20-3405-PET, 20-3563-PET,
4 21-0167-PET, and 22-4301-PET.

5 **Q4. Have you previously filed testimony in this preceding?**

6 A4. No, I have not.

7 **Q5. What is the purpose of your testimony in this case?**

8 A5. My testimony describes current policies and frameworks for environmental justice and
9 energy equity in Vermont. I evaluate the GMP ZOI through these frameworks, responding
10 to testimony from Tiana Smith, Michael Burke, and Joshua Castonguay regarding ZOI
11 customer engagement, project selection criteria and prioritization, and evaluation metrics.
12 I make recommendations on how these aspects of the ZOI could be improved so that, if
13 approved, it serves GMP customers equitably.

14 **Q6. What is Vermont’s statutory policy on environmental justice?**

15 A6. In 2022, the Vermont legislature passed, and Governor Phil Scott signed into law, Act 154.¹
16 As enacted, Act 154 establishes the following environmental justice policy for Vermont:

17 “It is the policy of the State of Vermont that no segment of the population of the
18 State should, because of its racial, cultural, or economic makeup, bear a
19 disproportionate share of environmental burdens or be denied an equitable share
20 of environmental benefits. It is further the policy of the State of Vermont to

¹ Vermont Act No. 154 (S.148), *An act relating to environmental justice in Vermont* (2022), available at <https://legislature.vermont.gov/Documents/2022/Docs/ACTS/ACT154/ACT154%20As%20Enacted.pdf>. Most of the Act 154 provisions are embodied in statute within 3 V.S.A. §§ 6001-6007.

1 provide the opportunity for the meaningful participation of all individuals, with
2 particular attention to environmental justice focus populations, in the
3 development, implementation, or enforcement of any law, regulation, or policy.”
4 3 V.S.A. § 6003.

5 **Q7. How does the Comprehensive Energy Plan define energy equity?**

6 A7. Chapter Three of the 2022 Comprehensive Energy Plan (“CEP”)² discusses principles of
7 energy equity, justice, and a just transition in the context of Vermont’s energy system. The
8 CEP adopts the definition of energy equity (also discussed as energy justice) utilized by
9 the *Guiding Principles for a Just Transition*³ (“Guiding Principles”) developed to support
10 the work of, and adopted by, the Vermont Climate Council. The Guiding Principles define
11 energy equity as aiming to “make energy accessible, affordable, cleaner, and
12 democratically managed for all communities.”⁴

13 **Q8. What frameworks do these policies collectively provide for evaluating the equity and**
14 **justice considerations of energy policies and programs in Vermont?**

15 A8. The principles of energy equity embedded in the 2022 CEP, and environmental justice
16 embedded in Act 154, require consideration of several dimensions of equity and justice,
17 including:

- 18
- Who is most impacted by a policy or program;

² VERMONT DEPARTMENT OF PUBLIC SERVICE, *2022 Vermont Comprehensive Energy Plan* (Jan. 14, 2022) at 49, available at https://publicservice.vermont.gov/sites/dps/files/documents/2022VermontComprehensiveEnergyPlan_0.pdf. See also 30 V.S.A. § 202b (providing for Vermont Comprehensive Energy Plan).

³ Vermont Climate Council – Just Transitions Subcommittee, *Guiding Principles for a Just Transition* (Aug. 2021), available at [https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/\(6\)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/(6)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf).

⁴ *Id.* at 4.

- 1 • How are they impacted (either positively, through receiving benefits, or
- 2 negatively, by bearing burdens) and do they experience a disproportionate share
- 3 of the benefits or burdens;
- 4 • How those most impacted have been given meaningful opportunities to
- 5 participate in the design, implementation, or evaluation of the policy or
- 6 program; and
- 7 • What accountability mechanisms are in place to evaluate the extent to which a
- 8 policy or program exacerbates, mitigates, or maintains existing inequities?

9 *'Who is most impacted'* requires identifying which individuals, communities, and/or
10 geographic locations are most likely to be impacted by a policy or program, emphasizing
11 those populations who have or will face disproportionate negative impacts. Both Act 154
12 and the Guiding Principles both offer direction on how to identify these populations in
13 Vermont energy and climate programs. For example, 3 V.S.A. § 6002(4) defines
14 environmental justice focus populations (“EJFP”) as:

15 “any census block group in which:

- 16 • (A) the annual median household income is not more than 80 percent of the
- 17 State median household income;
- 18 • (B) Persons of Color and Indigenous Peoples comprise at least six percent
- 19 or more of the population; or
- 20 • (C) at least one percent or more of households have limited English
- 21 proficiency.”

1 By comparison, while the Guiding Principles do not offer a specific definition, they do
2 define four core criteria that characterize “impacted and frontline communities”⁵ including
3 those communities who “[a]re highly exposed to climate risks, including health impacts,
4 flooding, extreme temperatures”⁶ and those who “[e]xperience oppression and racism, are
5 excluded from opportunities, or have less resources to adapt to climate and economic
6 change.”⁷ The Guiding Principles also state that, “[r]ecommendations must recognize
7 inequality and seek to resolve them using clearly identified strategies.”⁸

8
9 *Assessing how these populations are impacted* entails analysis of the distribution of
10 benefits and burdens. This requires an understanding of how the benefits and burdens
11 associated with a program (e.g. reductions in outage hours and net cost of investing in new
12 infrastructure) are distributed across those individuals, communities, and geographic
13 locations. Such an assessment identifies whether any communities face a disproportionate
14 share of burdens and acknowledges that a strategy designed to benefit one person or
15 community might burden another.⁹ In defining environmental justice, Vermont statute

⁵ Vermont Climate Council – Just Transitions Subcommittee, *Guiding Principles for a Just Transition* (Aug. 2021) at 5, available at [https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/\(6\)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/(6)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf).

⁶ Vermont Climate Council – Just Transitions Subcommittee, *Guiding Principles for a Just Transition* (Aug. 2021) at 5, available at [https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/\(6\)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/(6)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf).

⁷ *Id.*

⁸ *Id.* at 6.

⁹ *An act relating to the regulation of wetlands, river corridor development, and dam safety: Hearing on S.213 Before the S.Comm. on Natural Res. and Energy*, 2023-2024 Session (Feb. 12, 2024) (testimony of Karla Raimundi, Civil Rights and Environment Justice Director, Vt. Agency of Natural Res.) available at <https://legislature.vermont.gov/Documents/2024/WorkGroups/Senate%20Natural%20Resources/Bills/S.213/Witness%20Documents/S.213~Karla%20Raimundi~Environmental%20Peerspective~2-15-2024.pdf>.

1 provides that “environmental justice requires providing a proportional amount of resources
2 for community revitalization, ecological restoration, resilience planning, and a just
3 recovery to communities most affected by environmental burdens and natural disasters.”¹⁰
4 Similarly, the Guiding Principles emphasize that policies and programs should “tackle the
5 needs of impacted and frontline communities first, providing the greatest benefits of
6 transitions to these communities.”¹¹ Where new programs create burdens, they should
7 consider ways to shift these burdens away from communities already most impacted.¹²
8

9 Definitions of *meaningful participation* in 3 V.S.A. § 6002(6) require that “all individuals
10 have the opportunity to participate in energy, climate change, and environmental decision
11 making. Examples include needs assessments, planning, implementation, permitting,
12 compliance and enforcement, and evaluation.” The Guiding Principles further advise that
13 inclusive, transparent, and innovative engagement should identify potential impacts,
14 benefits, and burdens of programs or policies and that “impacted communities must be
15 recognized and their voices prioritized in conversations surrounding equity, climate
16 change, and the effects of specific Recommendations.”¹³
17

¹⁰ 3 V.S.A. 6002(3).

¹¹ Vermont Climate Council – Just Transitions Subcommittee, *Guiding Principles for a Just Transition* (Aug. 2021) at 7, available at [https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/\(6\)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/(6)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf).

¹² *Id.*

¹³ Vermont Climate Council – Just Transitions Subcommittee, *Guiding Principles for a Just Transition* (Aug. 2021) at 6, available at [https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/\(6\)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/(6)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf).

1 Finally, *reporting and accountability* mechanisms seek to hold decision-makers
2 accountable for achieving desired outcomes and help assess whether programs and policies
3 are indeed improving equitable outcomes. For example, questions from the Guiding
4 Principles assessment tools ask:

- 5 • How will we know about the impacts of this recommendation on identified
6 communities?
- 7 • Which data or indicators will be needed?
- 8 • What process was used to determine the indicators are resonate and relevant to
9 most impacted community needs?
- 10 • How will it be collected and shared?¹⁴

11 Finally, the Guiding Principles highlight the need to *move at the speed of trust*,
12 acknowledging that candor and honesty will be critical for building and maintaining public
13 trust and preparing for the transition to a sustainable energy future.¹⁵

14 **Q9. How does GMP's broad approach to embedding equity in the ZOI align with**
15 **definitions of equity and justice in Vermont?**

16 A9. At a high level, GMP asserts that the ZOI centers equity by eliminating all customer
17 outages. This is repeated frequently across testimony and rebuttal testimony provided by
18 Tiana Smith, Michael Burke, and Joshua Castonguay. For example:

¹⁴ Vermont Climate Council – Just Transitions Subcommittee, *Guiding Principles for a Just Transition* (Aug. 2021)
at 8, available at
[https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/\(6\)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/(6)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf).

¹⁵ Vermont Climate Council – Just Transitions Subcommittee, *Guiding Principles for a Just Transition* (Aug. 2021)
at 7, available at
[https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/\(6\)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/(6)%20Guiding%20Principles%20and%20Scoring%20Rubric.pdf).

- 1 • Ms. Smith’s testimony states “[t]he ZOI is about meeting all customers’ needs,
2 all the time, regardless of their circumstances or location.”¹⁶ and “Ultimately,
3 the ZOI when done will also advance equity when all customers can experience
4 reliable, resilient access to power and GMP’s energy programs regardless of
5 location”¹⁷
- 6 • Mr. Burke’s testimony states “[n]o matter who you are or where you live, you
7 will be a part of a reliable, resilient energy system that is clean, affordable, and
8 there when you need it most.”¹⁸
- 9 • Mr. Castonguay’s testimony notes “[o]ur Zero Outages Initiative brings this
10 same level of resiliency to customers across our entire territory, regardless of
11 location. This is the heart of equity The status quo where rural areas have
12 infrastructure more often hit with damaging storms than elsewhere will no
13 longer work. Customers that live rurally, by choice or by circumstance, are as
14 deserving of resiliency as those that live in our urban centers.”¹⁹

15

16 Collectively, GMP witnesses appear to assert that equitable outcomes of the ZOI will be
17 achieved following completion of the project, when all customers experience zero outages,
18 particularly rural ones. Assertions by GMP witnesses, however, such as the one from Mr.
19 Castonguay on behalf of GMP, at times seem to conflate concepts of equality and equity,
20 which are not the same, as highlighted in the 2022 CEP. In contrast, the 2022 CEP states

¹⁶ Smith pf. reb. at 6.

¹⁷ *Id.* at 25.

¹⁸ Burke pf. at 5.

¹⁹ Castonguay pf. at 19.

1 that, “[w]hile considerations of *equality* promote availability of equal opportunities for all,
2 *equity* points a step further, toward recognizing and healing past harms perpetrated and
3 perpetuated by the current energy system, whose detrimental impacts have been
4 disproportionately — and therefore unjustly — distributed among the communities the
5 system has served.”²⁰ While both equity and equality seek to recognize and address that
6 not all individuals share the same access to benefits or outcomes of initiatives, these
7 concepts differ in how they seek to address this outcome. *While equality* focuses on
8 offering the same services and/or achieving the same outcome for everyone (i.e., zero
9 outages for all GMP customers regardless of their context), *equity*, emphasizes recognizing
10 those individuals, communities, or locations who experience greater barriers to access, or
11 a disproportionate share of burdens due to factors outside of their control and allocating
12 proportionate resources to support them based on that context in striving to achieve the
13 same outcomes as others. As Ms. Margolis highlighted in her prefiled direct testimony,
14 GMPs current petition is limited to approval for Phase 1 of the ZOI, so there is a need to
15 carefully prioritize who should receive the initial investments to achieve more equitable
16 outcomes from the start – based on who bears a disproportionate burden from current
17 outages.²¹ I discuss GMP’s proposed approach to project prioritization in further detail
18 below.

²⁰ VERMONT DEPARTMENT OF PUBLIC SERVICE, *2022 Vermont Comprehensive Energy Plan* (Jan. 14, 2022) at 50, available at

https://publicservice.vermont.gov/sites/dps/files/documents/2022VermontComprehensiveEnergyPlan_0.pdf (emphasis in original). See also 30 V.S.A. § 202b (providing for Vermont Comprehensive Energy Plan).

²¹ Margolis pf. at 10-11.

1 **Q10. How does GMP identify who is currently disproportionately impacted by outages?**

2 A10. Testimony filed by GMP in support of its ZOI highlight a number of populations who are,
3 or might be, disproportionately affected by outages. These include rural customers,²²
4 particularly those rural customers in heavily forested districts,²³ customers with energy
5 burden and social vulnerability,²⁴ and customers with medical needs, such as those
6 included on GMP’s critical care list.²⁵ For example, in her rebuttal testimony, Ms. Smith
7 discusses the recent April storm which caused significant damage to GMP territory, noting
8 that “[i]n [GMP’s] . . . hardest hit districts, [GMP] . . . heard from many customers on [the
9 GMP] . . . critical care list or who are vulnerable – recently home from the hospital, caring
10 for a newborn or their elderly parents, and battling cancer. All those factors limit their
11 ability to relocate during an event.”²⁶ In addition, GMP highlights specific geographic
12 areas of the distribution systems that currently face significant outages and/or may be more
13 vulnerable to outage events. These include rural areas of central and southern Vermont²⁷
14 and the 15 towns identified by GMP’s Resilience Zone scoring methodology.²⁸

²² Smith pf. reb at 4,6,10, and 18; Burke pf. at 5 and 20; Castonguay pf. at 19.

²³ Burke pf. reb. at 7.

²⁴ Castonguay pf. at 20 and Exhibit GMP-JC-1.

²⁵ Smith pf. reb. at 9.

²⁶ Smith pf. reb. at 9.

²⁷ Burke pf. at 5.

²⁸ These include Rochester, Grafton, Vershire, Danby, Athens, Brookline, Rockingham, Bethel, Brattleboro, Townshend, Strafford, Plymouth, Granville, West Fairlee, and Putney. Exhibit GMP-JC-1.

1 **Q11. How does GMP propose to prioritize ZOI projects and does this reflect the**
2 **populations they have identified as most impacted by outages?**

3 A11. Currently, GMP is proposing to utilize the criteria from their 2020 Climate Plan to
4 prioritize investments in the ZOI.²⁹ As detailed by Mr. Burke, these criteria include
5 assessing the:

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

11 Through the utilization of these criteria in combination with information from and
12 expertise of GMP field crews, permitting, and availability of equipment and materials³⁰
13 GMP has identified two priority circuits, the EJ-G7 and 56G1,³¹ for the initial ZOI
14 investments which serve the towns of Townsend, Newfane, Jamaica, Stratton, Wardsboro,
15 Dover,³² and Whitingham, Halifax, Guilford, Wilmington,³³ respectively.

16
17 While GMP's Climate Plan criteria consider the number of customers served by a circuit,
18 they do not appear to include any context about who those customers are nor their potential
19 vulnerabilities beyond outage hours or proximity to critical facilities. These deficits in the

²⁹ *E.g.*, Burke pf. reb. at 15-16; Castonguay pf. reb. at 7.

³⁰ Burke pf. reb. at 13.

³¹ *Id.* At 15-17.

³² Exhibit-GMP-MB-12.

³³ Exhibit-GMP-MB-13.

1 evaluation criteria are present despite GMP’s recognition that factors such as a customer’s
2 energy burden, medical status, or other indicators of social vulnerability might influence
3 the impact felt as a result of an outage anecdotally in testimony (as highlighted in my
4 previous response) and practically through their current approach to identifying Resiliency
5 Zone projects. Of the 10 towns served by the EJ-G7 and 56G1 circuits, one of them is
6 identified among the top 15 towns prioritized by GMP for Resiliency Zones work.³⁴
7 Although Mr. Castonguay discusses the Resiliency Zone project prioritization criteria as
8 including measures of social vulnerability³⁵ via the use of the Center for Disease Control’s
9 Social Vulnerability Index (“SVI”) and energy burden³⁶, it does not appear GMP plans to
10 utilize this approach to prioritize ZOI investments. As Mr. Castonguay’s rebuttal testimony
11 notes, “all our ZOI work is guided by the overarching criteria developed in our initial
12 Climate Plan, which was then expressly incorporated into our latest IRP^[37]. . . . As with
13 the T&D investments described by Mr. Burke, our customer storage deployments in Zone
14 4 under ZOI will be similarly informed by these criteria.”³⁸ The SVI includes criteria
15 consistent with the 3 V.S.A. § 6002(4) definition of EJFP (ex. income, linguistic isolation,
16 and race and ethnicity) in addition to other vulnerability indicators. While Ms. Smith
17 references anecdotal prioritization of disadvantaged communities in her testimony³⁹, this
18 is not yet concretely reflected in the current prioritization criteria.

³⁴ Exhibit GMP-JC-1.

³⁵ Castonguay pf. at 20.

³⁶ Exhibit GMP-JC-1 at 1-2.

³⁷ “IRP” means an integrated resource plan under 30 V.S.A. § 218c.

³⁸ Castonguay pf. reb. at 7-8.

³⁹ Smith pf. reb. at 25.

1 Further, GMP has yet to provide any transparently calculated estimates about the benefits
2 and costs related to ZOI investments or how they will be distributed across its customers –
3 beyond Mr. Burke’s⁴⁰ estimate the ZOI will be equivalent to roughly a 2 percent annual
4 rate increase. Thus, it remains uncertain how, or if, ZOI investments and any related
5 benefits will be equitably prioritized to reach those most impacted by more than just outage
6 criteria and how the burdens of the ZOI, such as annual rate increases, might be mitigated
7 to those already burdened by rate impacts.

8 **Q12. How has GMP engaged with customers to inform the design of the ZOI and how do**
9 **they propose to continue engaging with them through implementation and**
10 **evaluation?**

11 A12. In her testimony, Ms. Smith highlights an extensive series of engagement events that GMP
12 participated in related to storm trends, planning, response, and resiliency projects. While
13 the Department appreciates and encourages these efforts to engage with town selectboards,
14 regional planning commissions, energy committees, and emergency preparedness
15 stakeholders, there are several outstanding questions about how and whether these
16 engagement events clearly and transparently represented the ZOI to the public and
17 similarly informed the public of its structure. For example, the presentations for these
18 events included discussion of GMP’s Climate Plan, Resiliency Zones, and specific “climate
19 resilient projects.” In the first presentation in Exhibit GMP-TS-2 (Townshend Meeting on
20 4/25/2023) there is no mention of the ZOI. In the second presentation, the discussion of the
21 ZOI begins with a slide with screenshots of headlines about the initiative, ranging from

⁴⁰ Burke pf. at 21.

1 “Green Mountain Power Aims to Eliminate Outages by 2030,” “Green Mountain Power
2 launches ‘zero outages initiative’ with home batteries,” “Green Mountain Power vows new
3 plan will end outages,” and “Georgia Power should follow lead set by Vermont Utility” to
4 “Vermont Utility Plans to End Outages by Giving Customers Batteries” and “Green
5 Mountain Power proposes energy storage for all Vermonters.”⁴¹ The latter two are at least
6 misleading, because the ZOI has not proposed batteries or storage for all,⁴² and
7 unfortunately have framed Vermonters’ impressions of the ZOI in the absence of specific
8 and deliberative engagement. While the second presentation (the TRORC meeting on
9 12/6/23) submitted does discuss the ZOI generally, it does not discuss the proposal at hand,
10 which would only address a portion of GMP territory and therefore does not end outages
11 for all customers, and which would only result in Zone 4 customers in the Phase 1 areas
12 receiving storage.⁴³

13
14 Further, it is unclear whether attendees at the engagement events were apprised of how any
15 ZOI success would be measured, or whether and how these attendees would have the
16 opportunity to shape the initiative. Nowhere is the cost – either of Phase 1 or the entire ZOI
17 – transparently discussed. In discovery response A.DPS.GMP.3.14(e.), GMP states that:

18 “GMP explained the increasing costs of storm restoration and that the strategies
19 around undergrounding, storm hardening, and storage would lead to cost savings

⁴¹ Exhibit GMP-TS-2, at 24.

⁴² See, e.g., Castonguay pf. at 25 (stating that individual storage will “typically . . . be in the part of the circuit we are calling Zone 4, focused on the rural, remote ends of the circuit.”).

⁴³ See, e.g., Castonguay pf. at 25 (stating that individual storage will “typically . . . be in the part of the circuit we are calling Zone 4, focused on the rural, remote ends of the circuit.”).

1 for customers in the longer term through reduced power supply costs, avoided
2 storm restoration costs, and reduced vegetation management where lines were
3 undergrounded, in addition to the benefits, safety, and peace of mind it would
4 provide directly to customers and communities by avoiding these outages in the
5 first place.”

6 Nowhere does GMP seem to have discussed how the net ZOI costs incurred would
7 be borne by all customers, including those not directly benefiting from any ZOI benefits,
8 and associated with potential rate increases.

9
10 Further uncertainty remains regarding how, and if, GMP intentionally engaged with the
11 customers it expects are most impacted by current outages (ex. customers with medical
12 needs) and how, or if, these customer’s feedback was incorporated into the design of the
13 ZOI or any related prioritization criteria. In discovery response A.DPS.GMP.3.14, GMP
14 discusses outreach coordinated with towns and publicly warned Selectboard meetings but
15 does not mention any efforts to assess who was participating in the events, track whether
16 those customers were likely to be most impacted by outages, or conduct targeted outreach
17 to subsets of customers who were not being engaged.

18
19 Ms. Smith references the extent to which GMP continuously engages with customers,
20 including engagements specific to outage events,⁴⁴ yet in discovery response
21 A.DPS.GMP.3.13(b.) GMP notes “We do not collect and maintain demographic

⁴⁴ Smith pf. reb. at 12-13.

1 information when customers reach out to us about their accounts or keep breakdowns
2 categorizing the specific subject discussed.” Without such tracking frameworks, it is not
3 possible to evaluate the number of customers or subsets of customers who contact GMP to
4 discuss outage events or the extent to which they are either representative of GMP’s
5 customer base or those customers most impacted by outages currently.

6
7 Last, while GMP states in discovery response A.DPS.GMP.3.11 that it will continue to
8 engage with towns and communities, GMP has not proposed a specific plan to continue
9 engaging with customers throughout ZOI Phase 1 implementation or that of the broader
10 ZOI. Without such a plan, it is unclear how future engagement efforts will help refine ZOI
11 design and inform evaluation of the success of any initial investments. Similarly, it remains
12 uncertain how GMP will identify which customers or communities they will prioritize
13 engagement with or how such engagement will be conducted.

14 **Q13. Do you agree with Ms. Smith’s characterization of the Department’s engagement with**
15 **Vermonters on issues related to electricity?**

16 A13. In part. Ms. Smith’s rebuttal testimony⁴⁵ discusses engagement conducted by the
17 Department around renewable and clean electricity policies and programs. Specifically,
18 Ms. Smith notes the importance of reliability for Vermonters when thinking about where
19 their electricity comes from and offers numerous quotes from events hosted by regional
20 planning commissions highlighting the desire for investments in storage, microgrids, and
21 other resilience measures. While I agree that the Department’s engagement efforts have

⁴⁵ Smith pf. reb. at 14-17.

1 highlighted Vermonters’ prioritization of reliability, as Ms. Smith points out in her own
2 testimony, this engagement also highlighted equal prioritization of affordability concerns.
3 As noted by Ms. Smith, “[t]he press release regarding the polling put it this way: “[w]hen
4 considering how Vermont gets its electricity, reliability of service and affordability for
5 consumers were identified as the two most important factors, with 87% and 82% of
6 respondents considering them ‘very important.’”⁴⁶ What Ms. Smith’s testimony does not
7 highlight is that in the initial polling done by MassInc Polling Group (“MPG”):⁴⁷

- 8 • When considering responses for what is both “very important” and “somewhat
9 important,” 98% of respondents surveyed, selected affordability and 97%
10 selected reliability, respectively.⁴⁸
- 11 • When asked to select the single most important factor, 29% of respondents
12 selected affordability as the top concern, versus 17% selecting reliability.⁴⁹

13
14 Similarly, after the initial statewide polling, MPG facilitated 11 follow up focus groups to
15 discuss priorities around electricity in Vermont in greater detail, with 92 Vermonters who
16 took the initial poll. After these 90-minute discussions, when asked this same question
17 about the most important priority for electricity, *more respondents* picked affordability as
18 the most important priority and *fewer respondents* selected reliability.⁵⁰

⁴⁶ Smith pf. reb. at 14-15.

⁴⁷ THE MASSINC POLLING GROUP 2023 *Vermont Weighs In: Public Opinion on Renewable Electricity* (October 3, 2023) available at <https://publicservice.vermont.gov/sites/dps/files/documents/VT%20Weighs%20In%20Report%20MPG%20for%20Vermont%20PSD%2010.3.23.pdf>.

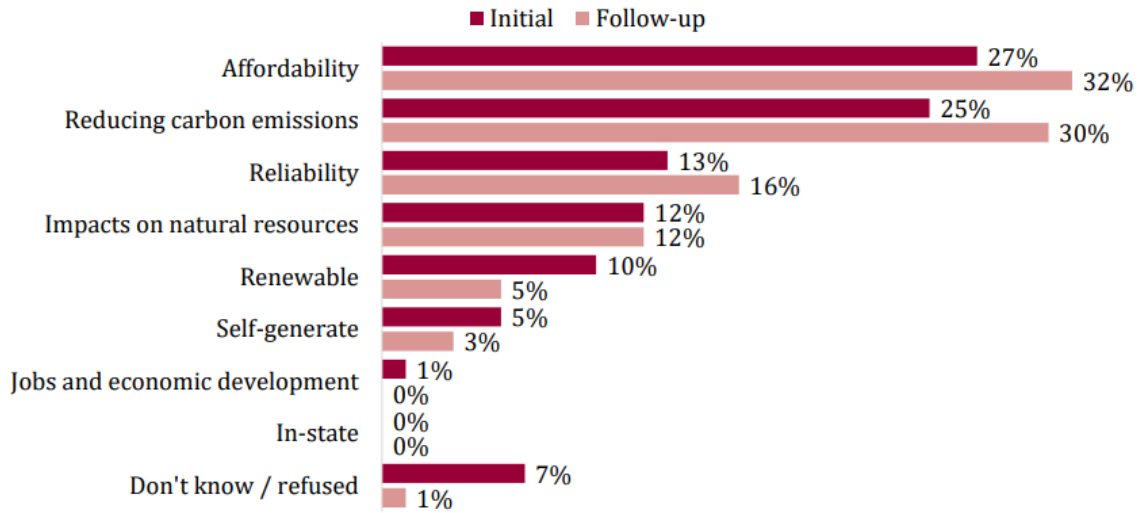
⁴⁸ *Id.* at 12 Figure 1.

⁴⁹ *Id.* at 14 Figure 5.

⁵⁰ *Id.* at 38 Figure 20.

Figure 1: Focus group participants single most important priority pre- and post-focus group discussions

Affordability and emissions gained ground as single most important factor
% of focus group participants choosing each as their single most important factor, initial v. follow-up



Additionally, the Department’s work highlights that Vermonters already feel like they must make tradeoffs between affordability and other objectives, like investing in renewable energy and electrification measures, which GMP’s witnesses say the ZOI will help promote. For example, one focus group participant stated “I was going to say affordability is my top. Obviously, the better angels of my nature want equity, renewability, and low emissions to be a priority. But I bought an old New England house for pennies on the dollar. I can’t afford startup costs for new loans, and I don’t have the budget for monthly payments in addition to my mortgage.”⁵¹

Ultimately, the point is not which of these two issues is more important to Vermonters – both clearly are. Interpretation of the cumulative result of the Department’s engagement

⁵¹ *Id.* at 25.

1 efforts underscores the need to balance both priorities, advancing reliability without
2 sacrificing affordability and vice versa. It is an opportunistic reading of the findings from
3 this effort to highlight one without the other.

4 **Q14. What accountability measures has GMP proposed to ensure that the ZOI is achieving**
5 **more equitable outcomes for its customers?**

6 A14. In Exhibit GMP-MB-17, Mr. Burke proposes a number of metrics to assess ZOI
7 implementation. These metrics include, among others, reporting on:

- 8 • Total Customers Experiencing Multiple Interruptions (“CEMI”) numbers by
9 district;
- 10 • Number of storage systems and the total kW capacity of said systems installed
11 under ZOI;
- 12 • Energy Assistance Program (“EAP”) and Critical Medical Customers
13 participating in ZOI;
- 14 • And, System Average Interruption Frequency Index (“SAIFI”)/ Customer
15 Average Interruption Duration Index (“CAIDI”) for Storage Customers by
16 circuit.

17 As noted by Ms. Margolis, the Department is appreciative that GMP has included
18 some of the metrics it suggested in this reporting.⁵² However, none of the metrics suggested
19 by GMP focus on developing a granular understanding of how different customers are
20 experiencing outages and how that may change after the ZOI investment.

⁵² Margolis pf. sur. at 11, 13.

1 **Q15. Do you have any recommendations about how the ZOI could be strengthened to**
2 **better center equity in its implementation and achieve more equitable outcomes for**
3 **GMP customers?**

4 A15. Reviewing the ZOI through an equity and justice framing reveals several areas where the
5 ZOI could better center equity. I make three recommendations:

6 1. *GMP Should Add Indicators of Social Vulnerability to ZOI Project Selection*
7 *Criteria.* For the ZOI, GMP's Climate Plan criteria should be updated to include indicators
8 of social vulnerability. In the Department's Option I, as discussed by Mr. Poor in his direct
9 and surrebuttal testimonies, these updated criteria should be used to inform prioritization
10 of all ZOI projects and in Option III, it should be used for all ZOI projects completed
11 beyond the two proof-of-concept circuits. I recommend GMP either 1) use the definition
12 to EJFP in 3 V.S.A. § 6002(4) or 2) utilize the SVI and energy burden indicators consistent
13 with the methodology GMP currently utilizes to identify Resiliency Zone projects. With
14 regards to the use of the EJFP definition, although development of a statewide
15 environmental justice mapping tool is still underway, data to assess whether a census block
16 group qualifies as an EJFP can be readily pulled, and analyzed, from the American
17 Community Survey or Census.

18
19 Should GMP move forward under Option III, I recommend that GMP update the Resiliency
20 Zone methodology to utilize the 2023 Efficiency Vermont Energy Burden Report.⁵³ Since

⁵³ Justine Sears & Kelly Lucci 2023 2023 Vermont Energy Burden Report (August 2023) available at <https://www.encyvermont.com/Media/Default/docs/landing-pages/energy-burden-report/2023-EfficiencyVermont-EnergyBurdenReport.pdf>.

1 the SVI includes indicators of income, linguistic isolation, and race and ethnicity as
2 included in the EJFP definition, this method would also be consistent with State-recognized
3 definition of EJFPs, although at a less granular geographic scale since the SVI is calculated
4 at the census tract or county level⁵⁴ as opposed to the census block group as EJFP are
5 defined.

6
7 Either of these two approaches to assessing where the greatest need is, and thereby where
8 GMP should prioritize its ZOI investments to achieve equitable outcomes, is consistent
9 with best practice in advancing equity and justice, including under the Biden
10 Administration’s Justice40 Initiative,⁵⁵ how state agencies will have to assess investments
11 under Act 154, and emerging efforts to prioritize resilience spending in other state
12 regulatory contexts.⁵⁶ It is also consistent with how GMP itself has already been
13 prioritizing resilience and reliability work under its Resiliency Zone efforts. This approach
14 recognizes that contextual factors such as income, race and ethnicity, or language access
15 can impact a customer’s experience of an outage such that two customers in the same
16 location (by choice or circumstance) may have variable experiences of an outage – e.g. a
17 customer with higher income or without medical needs may be better able to mitigate the
18 impacts of an outage compared to a lower income neighbor or one who is not homebound

⁵⁴ Exhibit-JC-1.

⁵⁵ *What is the Justice40 Initiative?* <https://www.whitehouse.gov/environmentaljustice/justice40/>.

⁵⁶ In an order issued December 1, 2023, the Michigan Public Service Commission ordered DTE to develop analyses to better understand the relationship between customer demographics and reliability, stating “DTE Electric Company shall also work with the Commission Staff and stakeholders to develop a detailed regression analysis of customer demographics and reliability for vulnerable communities to be used in the company’s distribution plan case.” Pg 375-376. Available from <https://mipsc.my.site.com/sfc/servlet.shepherd/version/download/0688y00000A10VBAAZ>.

1 due to their health. Failure to recognize the intersectionality of these issues risks
2 exacerbating existing inequities instead of mitigating them. Further, I recommend that
3 these additional criteria serve as an interim revision to the prioritization criteria that are
4 refined and, if warranted, added to based on further customer engagement, as discussed in
5 recommendation three below.

6 2. *GMP Should Include Consideration of Social Vulnerability and Customer*
7 *Experience in ZOI Assessment Metrics.* Similar to the prioritization criteria, any adopted
8 ZOI assessment metrics should be structured to evaluate the ZOI in a way that supports an
9 understanding of how communities and customers meeting thresholds for being considered
10 socially vulnerable or EJFP are impacted by outages and participate in the ZOI. The metrics
11 proposed by Mr. Burke in Exhibit GMP-MB-17 that report on the number of EAP
12 customers and Critical Medical customers participating in ZOI storage begin to address my
13 second recommendation but I also recommend additional equity-related metrics given the
14 emerging nature of assessing equity in resilience initiatives and, should Option III be
15 pursued, the proof-of-concept opportunity. In particular, I recommend the following
16 metrics be included and assessed through a robust collection of baseline data and then
17 ongoing assessment during ZOI implementation:

- 18 a. Outages and ZOI investments by EJFP (census block group) and municipality;
19 and
20 b. Customer experience of outages.⁵⁷

⁵⁷ MASSACHUSETTS GRID MODERNIZATION ADVISORY COUNCIL, Observations and Recommendations of the Grid Modernization Advisory Council: Regarding the Electric Distribution Companies' Electric-Sector Modernization Plans (Nov. 20, 2023) available at <https://www.mass.gov/doc/gmac-final-report/download> Consistent with recommendations for "accessibility & community engagement" in Appendix A1.

1 Reporting customer outages and ZOI-related investments by EJFP (at the census
2 block group) or by municipality overlaid with information on social vulnerability would
3 allow for assessment of how these communities are currently experiencing by outages and
4 being reached by ZOI investments. This would be consistent with how state agencies will
5 be expected to track investments under Act 154, how other states are approaching equity-
6 related assessments of resilience and reliability⁵⁸⁵⁹, and emerging national frameworks for
7 assessing equity in clean energy programs.⁶⁰

8
9 I further recommend that before GMP begins any ZOI-related investments that GMP
10 develop metrics to assess customer experience of outages in collaboration with the
11 Department and other stakeholders. In her rebuttal testimony, Ms. Smith states that
12 “[w]hile Ms. Margolis’s framing of less than 24-hour ‘reliability events’ and longer
13 ‘resilience events,’ pulled from the Department of Energy’s Modern Grid Report, is a way
14 to organize the analysis and review of outage response in an academic or research-oriented
15 way, in my experience it is not at all connected with what we hear from customers day in
16 and day out.”⁶¹ What Ms. Smith notes anecdotally can be captured in a variety of ways.

17 For example, it could be captured via a broad-based survey, accompanied by voluntarily

⁵⁸ MASSACHUSETTS GRID MODERNIZATION ADVISORY COUNCIL, *Observations and Recommendations of the Grid Modernization Advisory Council: Regarding the Electric Distribution Companies’ Electric-Sector Modernization Plans* (Nov. 20, 2023) available at <https://www.mass.gov/doc/gmac-final-report/download>.

⁵⁹ Recent work in Illinois to establish performance metrics for Ameren Illinois explore calculating SAIDI, SAIFI, CEMI4, and CELID for both Equity Eligible Communities and non-Equity Eligible Communities. See *Performance Metrics Plan For Ameren Illinois REVISED* (May 25, 2022) <https://www.icc.illinois.gov/docket/P2022-0063/documents/325744/files/567074.pdf>.

⁶⁰ Energy Equity Project 2022 *Energy Equity Framework: Combining data and qualitative approaches to ensure equity in the energy transition*” University of Michigan – School for Environment and Sustainability (SEAG). Available at https://energyequityproject.com/wp-content/uploads/2022/08/220174_EEP_Report_8302022.pdf.

⁶¹ Smith pf. reb. at 19.

1 reported demographic data, which would offer opportunities to better understand how: 1)
2 experience of outages differs (or doesn't) across customers based on sociodemographic
3 context in Vermont; 2) how this experience aligns, or doesn't, with regulatory and policy
4 understandings of reliability and resilience; and, 3) how customer's experiences change
5 after they receive ZOI-related investment.

6
7 Similar to my first recommendation, I suggest that these initial equity-related metrics be
8 reviewed and refined through targeted public engagement by GMP regarding the ZOI and
9 through the Commission processes recommended by Ms. Margolis⁶².

10 *3. GMP should develop a formalized customer engagement strategy to guide ZOI-*
11 *related engagement efforts:* While the Department appreciates GMP's initial and extensive
12 engagement efforts in 2023 and early 2024 to engage with customers and communities
13 experiencing significant outage events, I recommend that GMP develop a customer
14 engagement strategy to guide additional intentional and transparent engagement by GMP
15 regarding the ZOI. Such an engagement plan should include the following:

- 16 • A discussion of strategies used to engage with customers to inform or evaluate
17 the ZOI (ex. publicly warned meetings organized in collaboration with towns
18 and, as applicable, regional planning commissions, routine customer calls, and
19 targeted engagement for customers most likely to be disproportionately
20 impacted by outages – such as those meeting criteria for EJFP or those with
21 medical needs);

⁶² Margolis pf. sur .at 16

- 1 • A transparent and intentional approach for GMP to track its engagement efforts,
2 including documentation of the outreach conducted for each engagement effort,
3 a summary of key takeaways from the discussions, and a method to
4 transparently assesses the extent to which GMP is achieving diverse
5 participation in such events;
- 6 • How GMP intends to specifically engage on refining prioritization criteria,
7 assessment metrics; and,
- 8 • How GMP will intentionally share any outcomes of the ZOI with customers,

9 Such efforts should be coupled with engagement on, and reported in, GMP's forthcoming
10 IRP. While initial engagement strategies for the ZOI could be formalized before GMP's
11 next IRP is completed, any long-term engagement plans for the ZOI should be included in
12 the IRP. Additionally, future GMP engagement efforts should be transparent in its
13 discussion of potential rate impacts, in addition to possible benefits and reporting on how
14 GMP's sharing of this information influences customer support for, or feedback around,
15 the initiative.

16 **Q16. How do you respond to Mr. Burke's assertions⁶³ about the urgent need to advance**
17 **ZOI quickly and at the scale of the Phase 1 proposal?**

18 A16. The Guiding Principles discuss the need to move at the speed of trust when making
19 recommendations for climate-related policies or programs. This requires balancing the
20 urgency to act in the face of significant climate impacts with the need to move intentionally
21 to ensure that those currently, or potentially, most impacted will in fact be prioritized in

⁶³ Burke pf. reb at 20.

1 climate efforts and that those efforts seeking to mitigate impact do not create new, or
2 perpetuate existing, inequities. The additional processes proposed by the Department to
3 refine the ZOI seek to ensure that the Vermonters most vulnerable to outages are equitably
4 supported by the ZOI and that the ZOI, if approved, does not perpetuate or exacerbate
5 existing inequities. Additionally, the Department's Option III proposal, should it be
6 selected, allows the initial spending on the ZOI to move forward as a proof-of-concept,
7 while conducting additional analyses and establishing prioritization and assessment
8 metrics in an intentional and transparent manner.

9 **Q17. Does this conclude your testimony?**

10 A17. Yes, it does.