
Green Mountain Power

S.140 – Energy Storage Overview

Senate Committee on Natural Resources & Energy

March 29, 2023

A Reliable & Resilient Grid for Customers

- ▶ Reliable, Resilient Grid Now and In the Future
 - ▶ Focus on programs and projects to accelerate the necessary carbon transformation of thermal and transportation sectors
 - ▶ Equitable transition for all customers, keeping electric rates affordable
 - ▶ More than ever important to strengthen the grid as the backbone for clean electrification
- ▶ System level tools
 - ▶ Upgrading infrastructure with storm hardened construction to better withstand today's changing climate
 - ▶ Strategic undergrounding
- ▶ Service level tools
 - ▶ Transformer upgrades
 - ▶ Home, business upgrades
 - ▶ Customer Distributed Energy Resources for flexibility



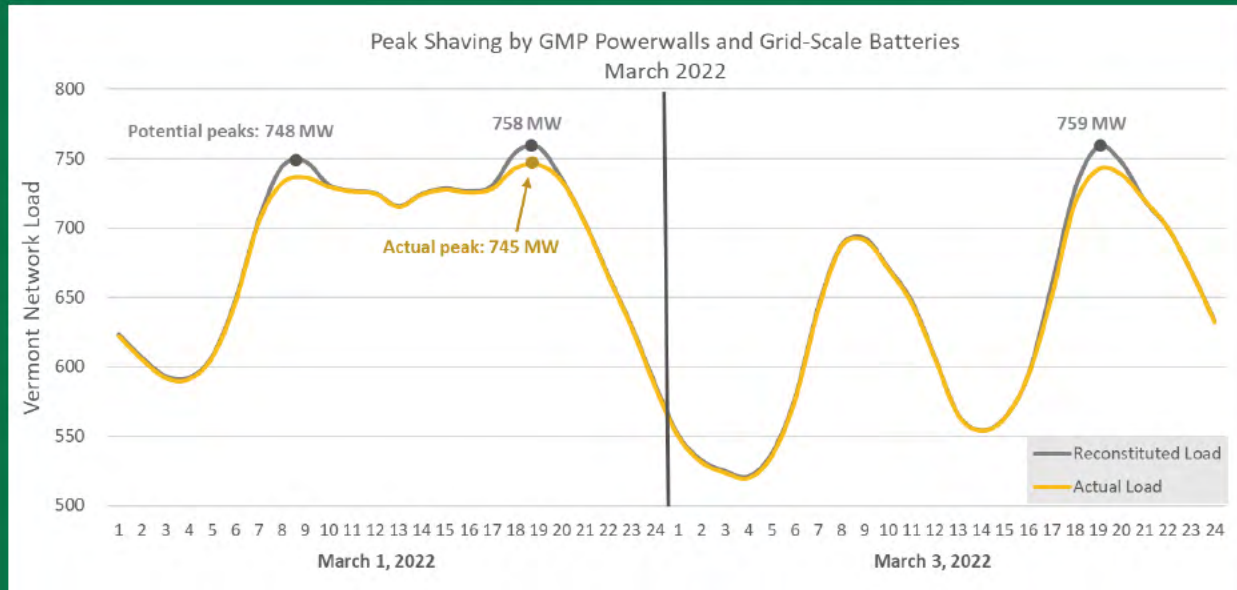
GMP's Proactive Climate Plan: Storage

- GMP continues to leverage battery storage as a key resiliency asset for customers
 - - 21MW of Residential Storage
 - - 52MW of Grid Scale Storage Online or Contracted
- This has allowed us to begin retiring fossil peaker generators
- When deployed optimally, battery storage strengthens the greater grid, increases resiliency, and helps lower costs for all, saving customers millions of dollars
- GMP deploying Resiliency Zones which are customized resilience solutions to the community
- Home Storage can last for days if managed and longer if paired with solar
- Both of these resiliency functions also work as peak reducers and frequency regulators on a day-to-day basis, which reduces costs for all customers.



Home Battery Programs

- 4,185 GMP Powerwalls installed
- 265 BYOD battery customers
- 21+ MW of dispatchable resource
- Powerwall lease fully subscribed for 2020, 2021, 2022 and 2023 – maintaining waitlist
- IRA increasing value through tax credits
- 545 customers installed by VT installers



Feedback on S.140 and Energy Storage

- Energy storage is a key component of our current and future grid.
- Will continue deploying storage through our existing programs, plus look for ways to expand our existing programs to reach more Vermonters more quickly.
- Thoughts on S.140: Our success in bringing energy storage online has been through our innovative pilot and tariffed offerings, accomplished with flexibility that is key in a rapidly changing industry.
 - **Mandates or requirements** can have the opposite effect and ultimately drive costs up vs. down. We would want to make sure flexibility of procurement strategies can be maintained to get storage to the best locations as quickly as possible
 - **Consider the participants** to ensure the committee has the capacity to complete this work on the timeline as proposed – perhaps a set of required participants and optional participants (many utilities currently focused on pursuing grants to get more storage out into Vermont).
- From our 2021 IRP:
 - “Our pilot programs provide real-world experience that informs potential permanent programs, as it has with GMP’s first-in-the-nation Energy Storage System (ESS) and Bring Your Own Device (BYOD) tariffs. Rather than spending years researching and studying what the impacts of a particular program may be, the best way to learn is by doing, especially as climate change demands we act quickly with real-world solutions.”*



Questions?

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