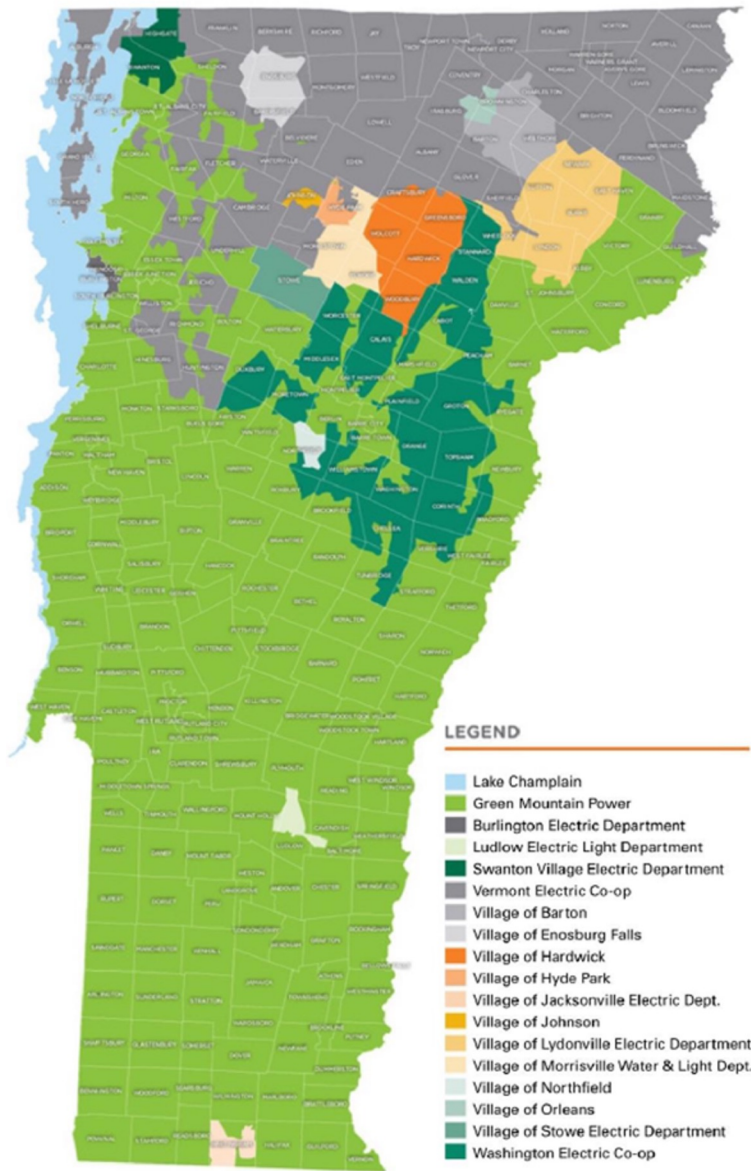

Green Mountain Power

Resiliency Work to Keep Vermont Connected
Senate Committee on Natural Resources & Energy

May 5, 2023

GMP: Who We Are



- ▶ GMP serves over 272,000 customers in 202 towns, covering 77% of Vermont
 - ▶ 85% residential customers, 15% businesses
 - ▶ Mostly rural and suburban territory with approximately 12,500 miles of distribution lines and 1,011 miles of sub-transmission
 - ▶ 15 district offices with teams across Vermont
 - ▶ About 510 employees, 285 are members of the IBEW Local 300
 - ▶ Our annual energy mix is 100% carbon free and 78% renewable
 - ▶ GMP will be 100% renewable by 2030

Storms are Getting Worse & We are Ready

- ▶ Overall Trend:
 - ▶ Vermont is getting more severe, damaging water-heavy snow
 - ▶ Unprecedented series of storms this winter
 - ▶ 3 of the top ten worst storms in GMP history, just this winter
 - ▶ Nine of the 10 worst storms have been since 2010



Storm Resilient: Overview

- ▶ 2020, state approved GMP's Climate Plan to launch targeted grid strengthening projects
- ▶ Expanding energy storage/batteries to keep customers powered up
- ▶ Microgrids & Resiliency Zones to keep communities powered up
- ▶ Extensive planning and resources in place prior to storms
- ▶ Partnering with Communities



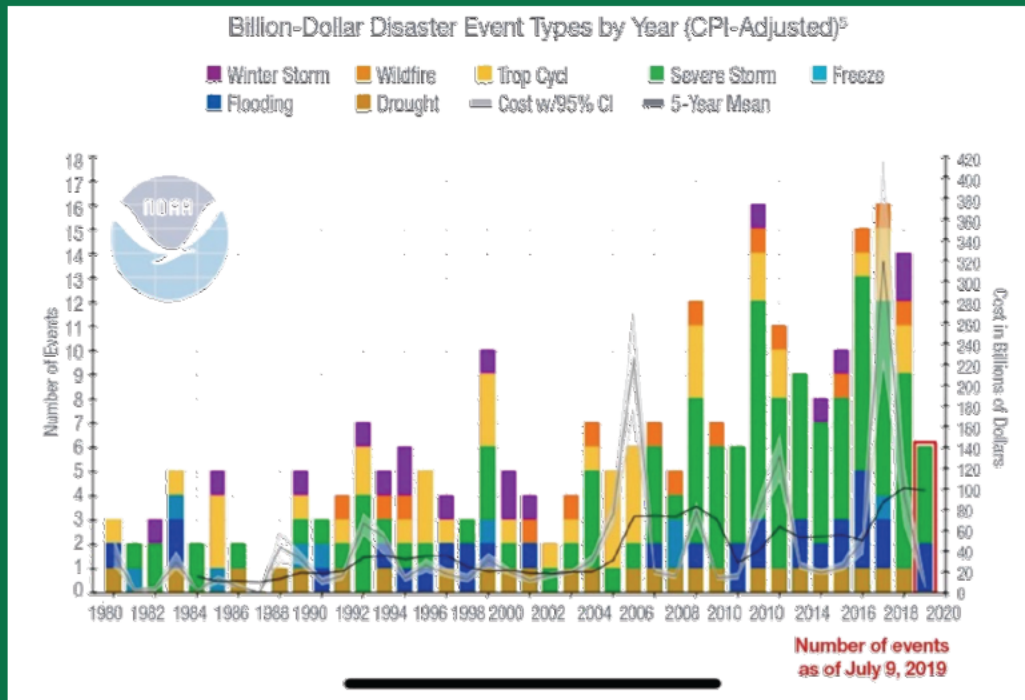
GMP's Proactive Climate Plan: Energy Storage

- ▶ GMP has deployed 40 MW of residential and utility scale batteries throughout Vermont
- ▶ Enough to power 20,000 homes for days
- ▶ Batteries strengthen the greater grid, add resiliency, and helps lower costs for all GMP customers
- ▶ Circuit, Town-level Storage, can isolate to microgrid if larger grid is damaged
- ▶ GMP deploying customized Resiliency Zones in partnership with communities to keep them powered up
- ▶ Home Storage can last for days if managed, and longer if paired with solar
- ▶ Batteries also reduce energy use at peak times on the grid, reducing costs for all customers



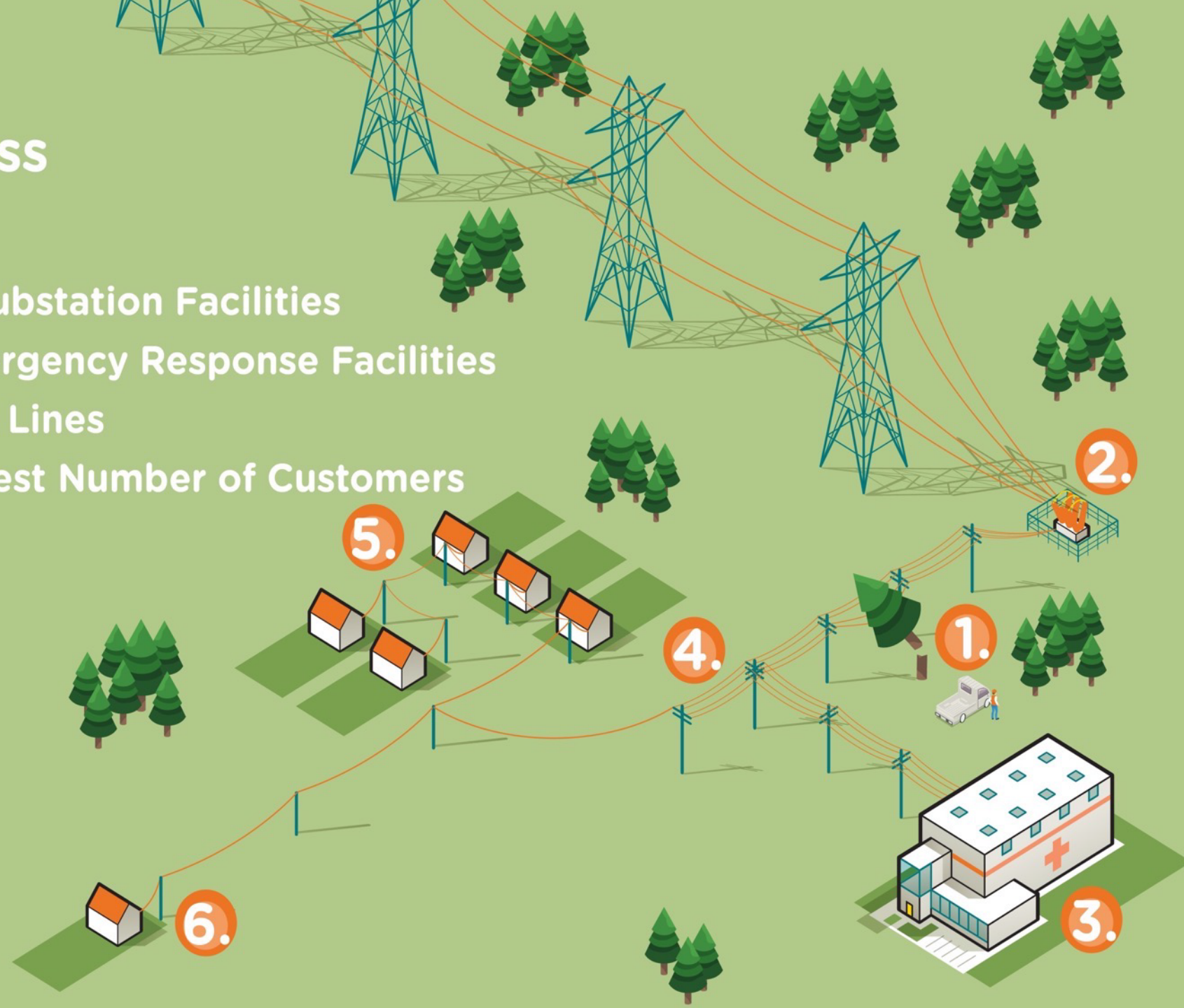
GMP's Proactive Climate Plan: Grid

- ▶ Upgrading infrastructure with Storm Hardened construction to better withstand today's changing climate.
- ▶ Undergrounding rural overhead lines, reducing the threat for outages while reducing maintenance costs.
- ▶ Using new and proven technologies such as self-healing distribution lines and battery storage to keep customers powered up.



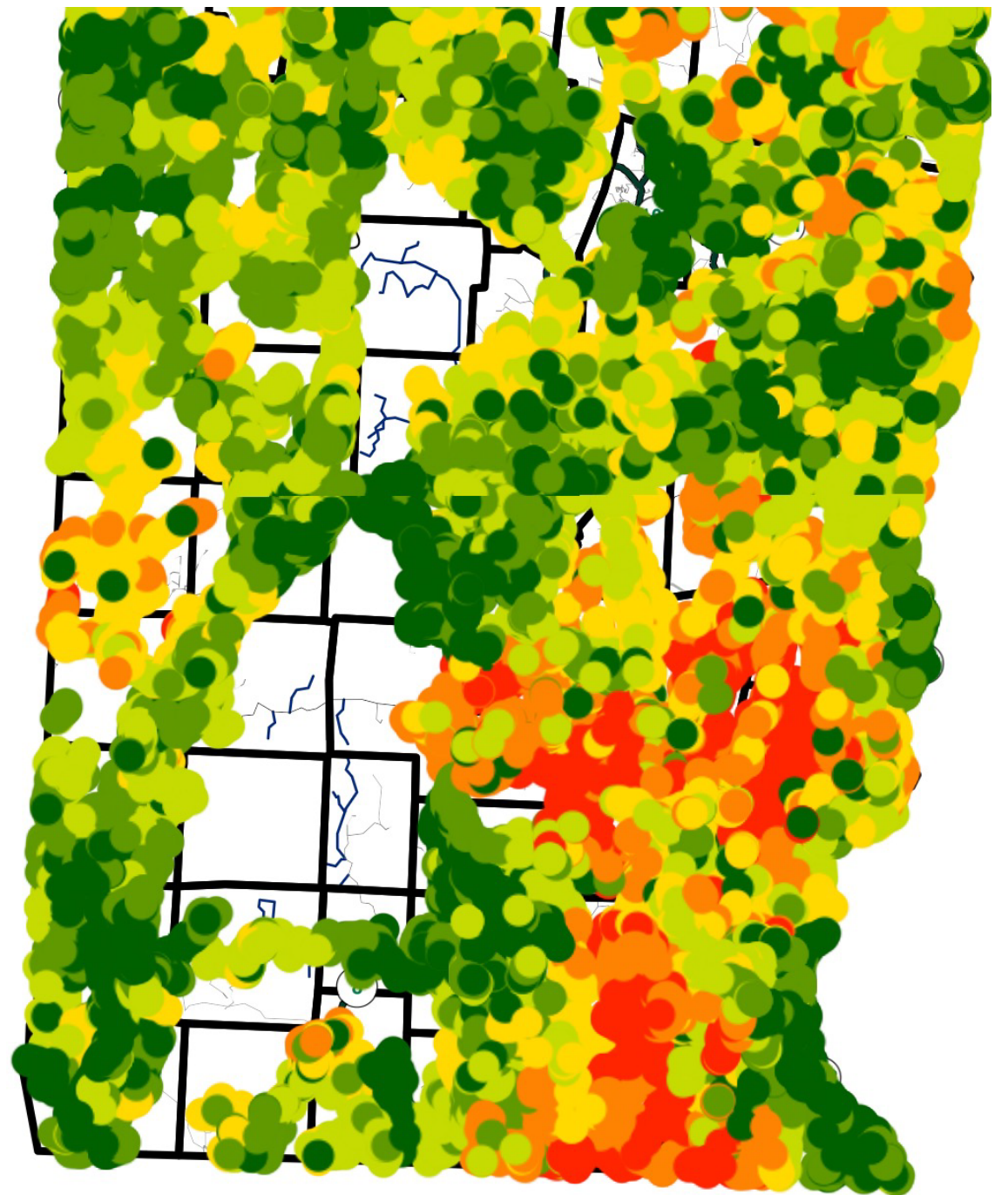
GMP Power Restoration Process

1. Clear Hazards
2. Repair Transmission & Substation Facilities
3. Restore Hospitals & Emergency Response Facilities
4. Repair Main Distribution Lines
5. Restore Areas with Largest Number of Customers
6. Restore Isolated Events



Storm Resilient: Outage Data

- ▶ Southern Vermont is being impacted by the climate crisis right now in terms of extreme weather leading to outages – this will continue to shift up north
- ▶ Projects focused on this area can make a big difference in terms of improving reliability
- ▶ Brings equity between 10-acre and 1-acre towns



Act 250: Equity & Resiliency Update

- ▶ We have projects to help communities that are being delayed, leading to customers experiencing outages they otherwise would not have to
- ▶ Current requirements put 1-acre towns at a distinct disadvantage to towns with zoning, leading to unequal treatment for Vermonters.
- ▶ Larger towns with local zoning are able to host rebuilds faster compared to smaller communities who often have resiliency work held back as we go through years of Act 250 requirements creating inequity.
- ▶ We are seeking a legislative solution within Act 250 for a narrow area where GMP or other electric distribution utilities are working to address reliability issues for existing customers by rebuilding existing lines in existing corridors, roads, or state rights-of-way.

Act 250: Equity & Resiliency Update

- ▶ Example Projects:
- ▶ Sharon to Bethel Auto Restoration tie. A small transmission right of way where a larger right of way was not permitted when the line was built in the '70s, will restore customers in 5 seconds once it's built along an existing high traveled paved road that has some telephone poles and power poles already there.
- ▶ Route 30, Jamaica to Dummerston, through Townsend and Newfane and parts of Dover and Brookline. This will help customers in those communities as this main backbone will improve reliability for that whole area.
- ▶ Rt. 100-Wardsboro-Main backbone from Rt. 30 along Rt. 100 into Wardsboro.
- ▶ West Hill Rd from Townsend Dam-Main feed into rural parts of Dover and Wardsboro, VH4A.
- ▶ Halifax-Main feed from route 100 southeast into Halifax.



Thank you. Questions?

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