Transmission & Distribution Lines & Substations and Resiliency Projects

The objective of our Transmission and Distribution (T&D) Lines/Substations capital planning process is to create a roadmap for implementing the most critical projects necessary to safely, reliably, and affordably deliver power to our customers. GMP's subtransmission system, consisting of transmission lines and substations, is an essential element of our grid infrastructure, connecting VELCO's and National Grid's high voltage transmission system with GMP's distribution system in order to serve GMP customers, and also to deliver energy to interconnection points for several of Vermont's other distribution utilities. GMP's subtransmission and distribution system delivers energy directly to our customers, and serves as the interconnect point for the growing number of customer-owned distributed energy resources. The T&D planning process identifies capital projects that deliver value to our customers in the following ways:

- Safety Improvements
- Reliability Improvements
- Efficiency Improvements
- Capacity Improvements
- Compliance with Regulatory Requirements
- Resiliency Projects

Safety Improvements: Projects that remove or reduce potential safety hazards to customers or employees are prioritized above all. These include replacing deteriorated or obsolete infrastructure that no longer meets current codes, standards, or operational requirements.

Reliability Improvements: Projects that address reliability by addressing aged or outdated infrastructure or will otherwise increase reliability by reducing the number and duration of outages, and/or the number of customers affected by outages. Storm-hardened construction methods on our distribution system have become GMP's standard in order to enhance both reliability and resiliency.

Efficiency Improvements: Cost-effective measures to reduce system losses, such as capacitor bank installations, reconductoring with higher-efficiency conductors, load balancing, circuit reconfiguration, and voltage conversions.

Capacity Improvements: Upgrades to prevent thermal overloads and maintain N-1 contingency capability where needed, enabling backup support between substations and feeders. Planning incorporates long-term load growth from electrification, particularly EV charging and heat pumps, and evaluates DER and storage as non-wires alternatives before traditional capacity expansion.

Compliance with Regulatory Requirements: Projects required to achieve regulatory compliance or to meet a contractual or tariff obligation. This might include a project that is the subject of a stipulation between GMP and the Department, Agency of Natural Resources or Agency of Transportation (state/municipal road jobs), and projects required by our joint-use and third-party attachment agreements. These projects, when appropriate, also use storm-hardened construction to receive an added benefit of resilience.

Resiliency Projects: Accelerated, targeted, and coordinated T&D improvements that improve reliability during severe weather, day to day and during other large grid events while controlling storm restoration and other system costs now. These projects are advanced under the Resiliency Projects provision of the proposed MYRP and address the circuits that are experiencing the worst outcomes during storms, proceeding in a deliberate manner so that resilience on these circuits is meaningfully advanced. This work also supports our efforts under our Service Quality Monitoring and Reporting Plan to improve reliability on the ten circuits with the lowest reliability metrics, annually. The T&D and resiliency planning teams use the criteria established under the MYRP to prioritize and plan for this work.