
Distribution Utility Interconnection Process

*VSPC Quarterly Meeting
January 20, 2026*

Overview of Interconnecting within GMP Service Territory

- There are 3 main interconnection processes to connect to GMP:

1. Distribution

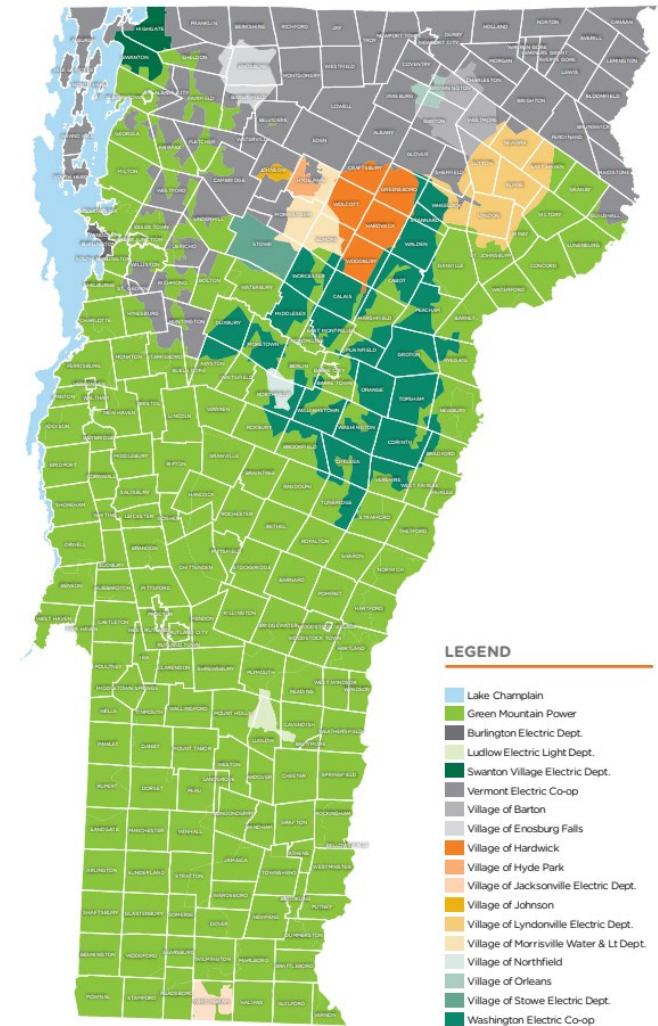
- Act 250 (Ability to Serve)
- There are constraints that limit what size loads can be interconnected on distribution (substation transformers, etc.)

2. Subtransmission

- Likely Act 248 if construction is required to interconnect
- Could require PPA/SIS review as outlined in VELCO slides

3. Transmission

- *Depending on size of large load, it may be most efficient to be served from 115 kV or higher. In that event, the interconnecting customer would follow VELCO's outlined process but would become a GMP customer.*



Track 1: Interconnecting to GMP Distribution

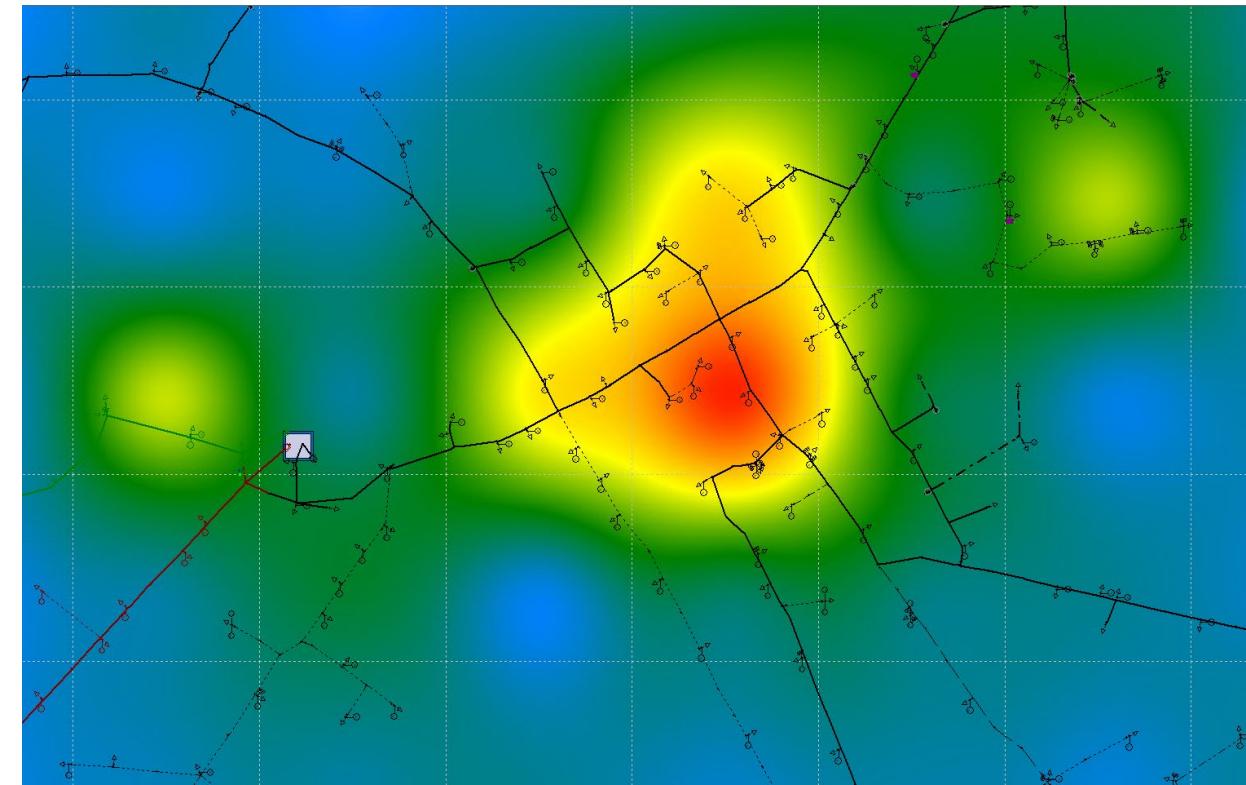
- If Act 250 permit is required for new construction/load addition, then an “Ability to Serve” (ATS) Letter is required so that a meaningful assessment of the projects reliability impact can be made under 10 VSA Section 6086 (a)(9)(J).
- Engineer/Electrician requesting interconnection initiates ATS request [here](#). Requests are sent directly to distribution engineers for review.
- Engineer performs review (thermal, voltage, protection coordination, short circuit) and provides ATS letter with any required upgrades listed.

Track 2: Interconnecting to GMP Subtransmission

- Loads that cannot be served from the distribution system for capacity or power quality reasons can be served from subtransmision networks.
- Subtransmission changes require a CPG, and study work is needed to show that the load addition and subtransmision changes will not adversely impact the electric system and meet all review criteria under Section 248.
- C&I customers also meet with GMP's commercial team to discuss FLM options, Tier III options, rate structure, etc.
- GMP's existing Rate 70 is designed for large customers connecting on the 115 kV system (legacy GF).

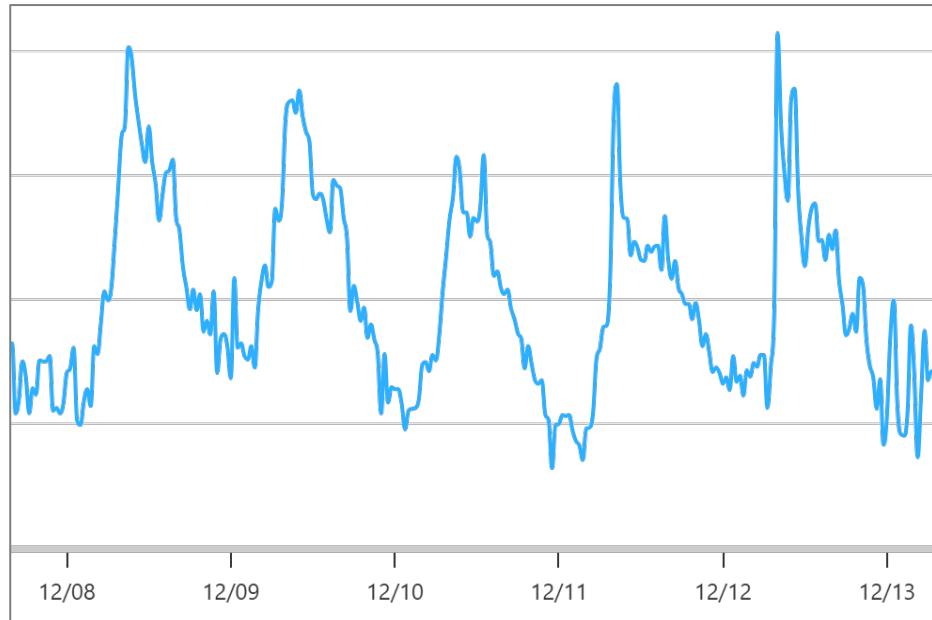
Technical Considerations for Connecting New Load

- **Thermal Capacity**
 - Varies greatly based on location. Some substations/feeders can absorb 3 MVA of load with no need for upgrades, while 3 MVA at other substations would overload the transformer and voltage regulators.
- **Voltage**
 - Capacitors, voltage regulators, or other solutions may be required to support voltage, especially for customers with large motor loads.
- **Protection Coordination**
 - Depending on location, protection may need to be removed, relocated, or added to accommodate larger loads and to ensure proper coordination.

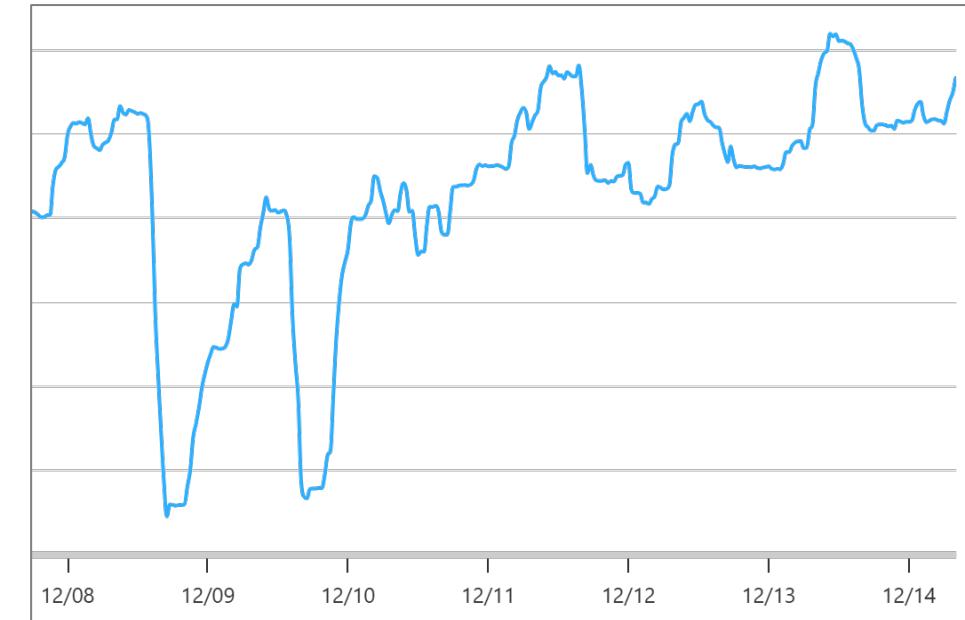


Technical Considerations for Connecting New Load

- **Load Shape, Load Factor, Service Requirements, etc.**
 - Different types of large loads have different load shapes and requirements for the service they receive.



Example manufacturing load, with lower load factor and variability from day to night.

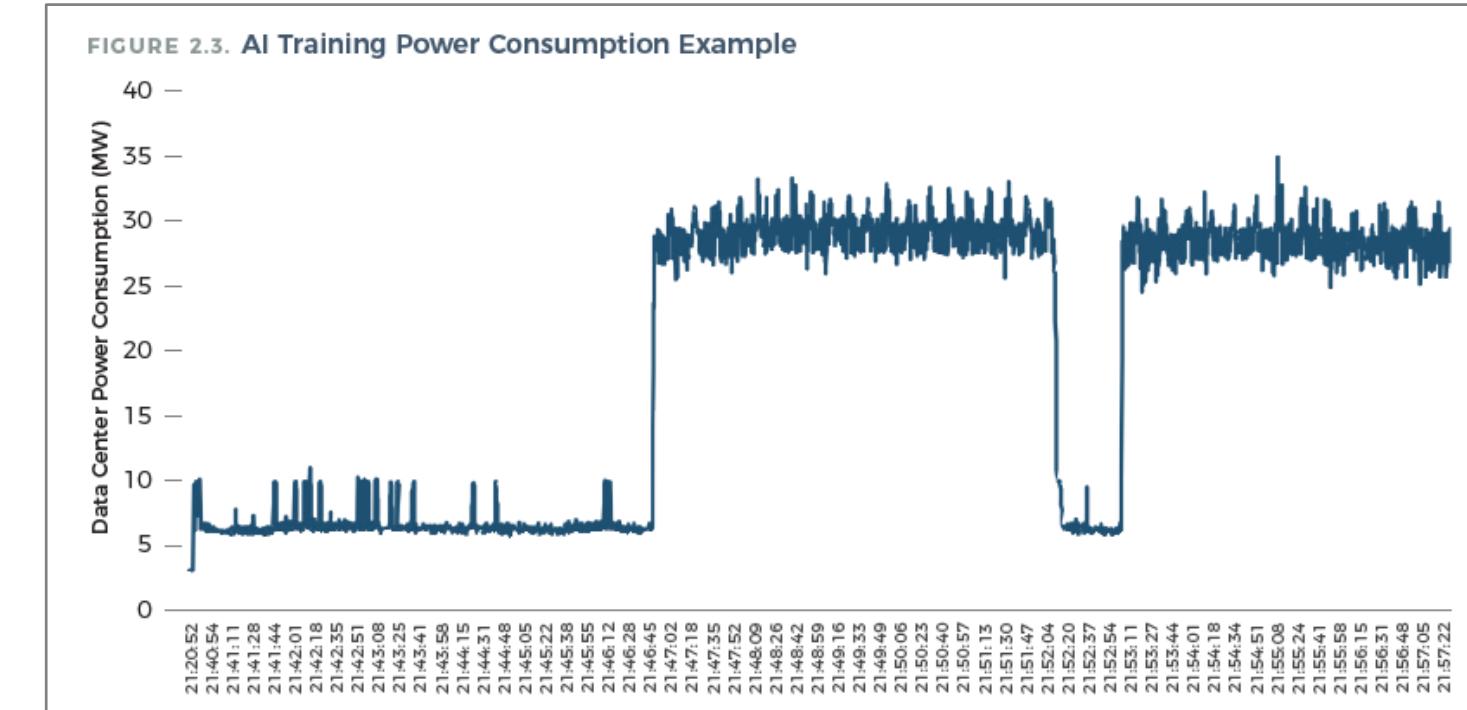


Example ski area load during snow making season. High load factor and high load at all hours.

Technical Considerations for Connecting New Load

- Load Shape, Load Factor, Service Requirements, etc.**

- Data Center loads can appear as block loads with high load factor and relatively constant block loads.
- Data centers can also have large blocks of load that rapidly switch on and off through the day.
- Both behaviors are different from traditional industrial large loads.



Example Data Center load with power electronic device switching causing rapid fluctuations from 5MW to 35 MW with numerous 5 MW spikes. *Data from GridLabs and Summit Energy.*

Example: Rate 70 for a Large Load

- For a large load with a high load factor (>80%) the all in cost under Rate 70 is approximately \$124/MWh on an annual average.
- The total cost to serve using GMP existing power supply mix and including Transmission costs is approximately \$105/MWh.
- The provides for an approximately \$19/MWh contribution to fixed costs which helps to lower the rate for all customers.
- *Example: 50MW data center with an 85% Load Factor:*
 - Total Rate 70 Revenue (\$54.3M) - Total Cost to Serve (\$46M) = **net contribution of \$8.3M.**

Customer Charge	\$223.717/day
Usage, Peak	\$0.12498/kWh
Usage, Off Peak	\$0.09610/kWh
Investment Charge, Peak Demand	\$6.046/month/kW
Investment Charge, Off Peak Demand	\$4.070/month/kW