



VSPC Geographic Targeting Subcommittee
June 30, 2026
Final Meeting Minutes

Participants:

BED: Paul Nadeau; **DPS:** TJ Poore, Lou Cecere; **EVT:** Dave Westman; **GMP:** Kamran Hassan, Cam Twarog; **Stowe:** Brent Lilley; **VEC:** Paul Pikna, Michael Beaulieu; **VELCO:** Shana Louiselle, Marc Allen, Khalid Osman, Zakia El Omari, Dave Haas, PJ Joseph; **VPPSA:** Heather D'Arcy, John Abbott; **WEC:** Brian Callnan

The Geographic Targeting Subcommittee met to perform the annual project review and discuss if any project required further NTA analysis.

Distribution Utility Project Review

Burlington Electric Department (BED)

- Munir Kasti reported that BED has no projects that screen in for further review.

Green Mountain Power (GMP)

- Taftsville Kamran Hassan reported that a transformer failure last year required GMP to construct a temporary substation under a Section 248(k) petition. As a condition of that petition, GMP was required to return within one year with a proposed permanent solution.

GMP submitted a 45-day advance notice last week for a project to relocate the Taftsville substation assets from the existing hydroelectric and transmission/distribution station along the river in Woodstock to the site of the temporary substation, on land owned by GMP. The project would relocate three transmission breakers, convert the bus arrangement to a ring-bus design, and retire the equipment at the existing station.

The project is driven solely by asset condition. Reconstructing the existing substation is not feasible because of its constrained location between the river and highway, and rebuilding it there would not resolve aesthetic concerns. The project would increase the substation from a one-circuit to a two-circuit configuration and replace the existing 7.5 MVA transformer with a 10 MVA transformer. The incremental cost of the larger transformer is approximately \$50,000.

The Geographic Targeting Subcommittee had no objections to the screening determination.

- **North Springfield Substation:** GMP presented a proposed asset-condition and protection-system upgrade at the North Springfield Substation. The existing three-terminal line configuration lacks selectivity: a fault on any terminal can open all three line ends and affect service from five substations. The area, near Vermont's eastern border, is subject to significant faults. Existing relaying also does not provide accurate fault-location information, requiring crews to manually locate outages and extending restoration time.

The proposed project would replace an existing switch with a breaker, sectionalize the line, construct approximately 0.7 miles of double-circuit transmission line, and upgrade associated protection equipment. The project would not increase capacity. The preliminary cost estimate for two breakers and approximately one mile of transmission work is \$5 million.

The Geographic Targeting Subcommittee had no objections to the screening determination.

Stowe Electric Department:

- Brent Lilley reported that Stowe Electric has no projects that screen in for further review.

Vermont Electric Cooperative:

- Michael Beaulieu reported that VEC has no projects that screen in for further review. The Sheldon Substation project discussed last year is on hold due to budgetary constraints.

Washington Electric Cooperative:

- Brian Callnan reported that WEC has no new projects that screen in for further review. The Mt. Knox and Jackson Corners projects discussion last year have been delayed. The Mount Knox project will start in fall 2027 and is expected to be completed by early 2028. Jackson Corners - late spring 2027 start.

Vermont Public Power Supply Authority:

- Heather D'Arcy reported that the municipalities under VPPSA have no projects that screen in for further review.

Transmission Utility Project Review

Marc Allen provided two project screenings for VELCO's F206 transmission line replacement project and Global Foundries Substation #86. Both projects screen out as asset maintenance projects.

- **F206 Asset Condition Project:** VELCO presented the F206 Asset Condition Project, involving a 32.49-mile, 230 kV line between VELCO's Granite Substation and the Comerford Substation. The line was originally constructed in 1971 and has not undergone a significant rebuild or upgrade. Individual structures were replaced between 2007 and 2023 to address major deficiencies.

Inspections conducted over the past four years identified deterioration in 181 of the line's 277 wood structures, including woodpecker damage, pole-top rot, cracked crossarms, splitting poles, and other decay. The affected structures average approximately 55 years old and are approaching the end of the typical useful life for 230 kV natural-wood structures. Under VELCO's A-through-D asset-condition rating system, all 181 structures were assigned a "C" rating, indicating that planned replacement is warranted.

No material issues were identified with the conductors, shield wires, or ADSS fiber-optic communication line. While the existing porcelain insulators also have no reported issues, they would be replaced with toughened-glass insulators during structure replacement because they are of the same vintage as the existing structures.

The F206 line is projected to be slightly overloaded in the 2035, 2040, and 2050 cases evaluated in ISO-New England's 2050 Study. The project also supports a high-likelihood need identified in that study for increased transmission capacity into the Essex area. VELCO evaluated three alternatives:

- **Alternative 1:** Replace deficient 230 kV wood structures with 230 kV steel structures, estimated cost: \$66.9 million.
- **Alternative 2:** Replace deficient 230 kV wood H-frame structures with 345 kV-capable steel H-frame structures and 230 kV toughened-glass insulation, estimated cost: \$67.5 million.
- **Alternative 3:** Fully rebuild and reconductor the line to 345 kV standards, estimated cost: \$239.2 million.

VELCO identified Alternative 2 as the preferred solution. For a modest incremental cost, it would install structures capable of supporting a future 345 kV upgrade while avoiding the substantially higher cost of a full rebuild before the additional capacity is needed. This approach would reduce the cost and complexity of a future capacity upgrade.

Construction is planned to begin in 2030, with the project placed in service in 2033. The project screens out of further non-transmission alternative analysis because it is an asset-condition project necessary to maintain the reliability and integrity of the existing line.

The Geographic Targeting Subcommittee had no objections to the screening determination.

GlobalFoundries Substation No. 86 Asset Condition Assessment Project: VELCO presented an asset-condition project for the 115 kV facilities at GlobalFoundries Substation No. 86. The substation was constructed in 1972 and underwent a major capacity upgrade in 1980. VELCO acquired the 115 kV assets from Green Mountain Power in 2023.

VELCO owns two 115 kV oil circuit breakers, nine 115 kV switches, associated buswork, protection and control equipment, and the control building. The project would address several asset-condition and operational concerns, including:

- Obsolete protection and control equipment with no available spares and insufficient backup or redundancy;
- Lack of SCADA control and limited monitoring capability for system operators;
- 115 kV oil circuit breakers that have exceeded their useful life;
- Significant deterioration of equipment foundations;
- Deficient electrical clearances, currently designed to a 350 kV basic insulation level, or BIL; and
- Physical security features that do not meet VELCO's current standards.

The project will be challenging because full service to the GlobalFoundries facility must be maintained throughout construction. VELCO is working with GlobalFoundries to determine the construction approach and whether a temporary arrangement will be needed to maintain plant load.

Anticipated work includes construction of a new control building with AC station-service and DC battery systems; installation of new, redundant protection and control systems; replacement of the 115 kV oil circuit breakers with vacuum breakers; and replacement of switches, instrument transformers, lightning arresters, and insulators. The project would also expand the substation fence to accommodate the new control building, increase electrical clearances to the standard 550 kV BIL, upgrade telecommunications, security, and monitoring systems to VELCO standards, and repair or replace equipment and structure foundations.

The preliminary conceptual cost estimate is \$8 million, with completion anticipated in the fourth quarter of 2028. The project screens out of further non-transmission alternative analysis because it is a maintenance-related project addressing asset condition.

The Geographic Targeting Subcommittee had no objections to the screening determination.

2024 NTA Study Process Retrospective

The group discussed lessons learned from the 2024 NTA study process.

What worked well: The Geographic Targeting process provided a forum for utilities to share project information and consider non-transmission alternatives. Participants also identified the growing role that flexible load management could play in addressing future system needs.

Challenges & gaps: There was disagreement over key planning assumptions including charging assumptions, and consensus was not always reached before analysis moved forward. Participants raised concerns about how the process accommodates new information or changing conditions after the initial screening process has begun. More complete distribution-utility participation in flexible load management planning is also needed, particularly as load growth and flexible-load capability evolve.

Potential improvements: Future evaluations should establish earlier and more structured collaboration between VELCO and the lead utility, with clear opportunities to discuss and align on assumptions. The process should also identify how new information can be incorporated after initial screening decisions, while maintaining an efficient and transparent workflow. Broader participation by distribution utilities in flexible load management planning and forecasting should be encouraged.

Next steps

Shana will circulate a working document outlining each step in the current GT NTA process for members to document comments and recommendations for improvement. The Subcommittee expects to reconvene September to review the feedback and continue the discussion.