



## **ANNUAL REPORT - DRAFT TO THE PUBLIC UTILITY COMMISSION & PUBLIC SERVICE DEPARTMENT**

February XX, 2025

### **INTRODUCTION**

In accordance with the Memorandum of Understanding (MOU) approved by the Public Utility Commission in Docket 7081 as amended<sup>1</sup>, this document comprises the annual report of the Vermont System Planning Committee (VSPC) detailing activities undertaken in 2024.

Among its provisions, the Docket 7081 MOU requires that the VSPC provide a report to the Public Utility Commission (PUC or Board) and Public Service Department (PSD) by February 15 of each year and post that report on the VSPC website. The report must consist of at least the following:

89. A report on each Reliability Deficiency identified to date in the [Long-Range Transmission] Plan or through the process described in Steps 1 through 6, above, including:
  - i. The status of NTA [Non-Transmission Alternative] Analysis for the Reliability Deficiency.
  - ii. The status of decision-making on the selection of alternative(s) to address the Reliability Deficiency.
  - iii. The status of decision-making on the allocation of costs of the alternative to address the Reliability Deficiency.
  - iv. The strategy chosen for implementing the alternative selected to address the Reliability Deficiency.

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<sup>1</sup> Investigation into Least-Cost Integrated Resource Planning for Vermont Electric Power Company, Inc.'s Transmission System. Amended 1/30/2012, 8/1/2012 & 11/6/2013 & Docket 8875 Order of 6/13/2018.

- v. The status of implementation of the alternative(s) to address the Reliability Deficiency.
  - vi. All documentation pursuant to paragraph 86, above, relating to advisory votes within the preceding calendar year.<sup>2</sup>
90. A statement of the dates and locations of all VSPC meetings held during the preceding year.<sup>3</sup>

In 2014, the Commission approved a recommendation by the VSPC, designed to harmonize reporting procedures, that the VSPC annual report incorporate annual utility updates on areas that have been approved for energy efficiency geographical targeting.<sup>4</sup> At this time, no area of the state is designated for energy efficiency geographic targeting so no such annual utility updates are provided for the current year.

This document represents the VSPC annual report on the status of transmission and non-transmission analysis, solution selection, cost allocation, and implementation planning of all identified reliability deficiencies as required by the MOU, as well as the meetings and organizational work of the VSPC during 2024.

## VSPC ACCOMPLISHMENTS, MEETINGS AND PROCESS

The past year was the seventeenth full year of VSPC operation. During this year, the major activities and accomplishments of the Committee included:

- Provided input to VELCO on its draft of the 2024 Vermont Long-Range Transmission Plan. Participated in a two-month VSPC review process on the plan prior to public draft release.
- Developed, and filed on October 31, 2024, the annual geographic targeting recommendations to the Commission. The Geographic Targeting Subcommittee developed the recommendations following a full review of transmission and subtransmission issues, as established in Docket 7081, and distribution issues, as established in Docket 7873/7874.
- Redesigned the VSPC website, updated all content and launched the new site. (See [www.vermontspc.com](http://www.vermontspc.com))
- Welcomed four new members appointed by the Public Utility Commission, including an alternate member representing commercial and industrial electric consumers, a primary and alternate member representing supply resources, and GF Power as the newest distribution utility without transmission.

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<sup>2</sup> ¶ 86 requires the VSPC to take advisory votes to resolve disputes regarding determinations of affected utilities and cost allocation.

<sup>3</sup> Docket 7081 MOU at 35-36.

<sup>4</sup> Docket EEU-2013-11, In re: VSPC Geographic Targeting Improvement Analysis, 1/24/2014.

- Heard presentations on a wide variety of energy-related initiatives, studies and reports including: regional electric transmission development initiatives, outcomes of ISO New England’s 2033 Vermont Needs Assessment, opportunities and challenges of offshore wind development in New England, results from the 2024 Vermont Long-Range Transmission Plan analysis, grid enhancing technologies for grid reliability, the 2024 Energy Action Network’s Annual Progress Report, and longer-term transmission planning efforts.
- Updated participants regularly on significant policy developments at ISO-NE, the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC) with regular participation by an ISO-New England (ISO-NE) representative, and briefings by VELCO. Topics of particular focus included: Revisions to ISO-New England’s Planning Procedure 12 (Distributed Energy Resource Data Collection), Planning Procedure 5-6 (Affected System Operator Study Coordination), Operating Procedure 17 (Load Power Factor and System Assessment), FERC Order 2023 and ISO-New England’s compliance proposal to coordinate Affected System Operator (ASO) study with FERC mandated cluster studies, and FERC Order 1920’s mandate for long-term transmission planning.
- Held a special VSPC webinar on September 13 on ISO-New England’s compliance proposal to coordinate Affected System Operator (ASO) studies with FERC-mandated cluster studies, providing an opportunity for VSPC stakeholders to engage directly with ISO-New England on the process changes and provide feedback to the proposed process.

The VSPC held the following full committee meetings during 2024:

1/24/2024	Quarterly meeting, South Burlington, VT
4/17/2024	Quarterly meeting, Middlebury, VT
7/17/2024	Quarterly meeting, Stowe, VT
10/21/2024	Quarterly meeting, Rutland, VT

The subcommittees of the VSPC met throughout the year as follows:

- Coordinating Subcommittee: The Coordinating Subcommittee met by phone January 10, April 5, June 25 and October 11 to plan the agendas for regular VSPC meetings.
- Geographic Targeting Subcommittee: The Geographic Targeting Subcommittee met on June 21 to carry out its responsibilities regarding geographic targeting recommendations to the full VSPC on energy efficiency and distributed generation.
- Technical Working Group: The PSD-led Technical Working Group met on June 13 to review the transmission needs and modeling solutions identified in the 2024 Vermont Long-Range Transmission Plan, and begin a

technical discussion on the non-transmission solutions under consideration to meet Vermont’s reliability needs in the near term.

- Flexible Load Management Working Group: The PSD-led Flexible Load Management (FLM) Working Group met on March 7, May 13, June 27, and October 21. The FLM Working Group originated in the Public Utility Commission’s order on Efficiency Vermont’s Demand Resource Plan, and the Public Service Department requested that VSPC be the forum under which the working group convened. The purpose of the working group is to bring together distribution utilities, energy efficiency utilities, and other stakeholders to identify and work towards consensus on flexible load management needs, goals, and outcomes for Efficiency Vermont to pursue at the statewide level.

The calendar of all VSPC meetings is posted on the VSPC website at:

<https://www.vermontspc.com/calendar>

Agendas and meeting minutes for the full VSPC meetings are posted on the VSPC website under the calendar drop downs at:

<https://www.vermontspc.com/calendar>

Subcommittee agendas and meeting minutes are posted on the VSPC website at:

<https://www.vermontspc.com/subcommittees>

No advisory votes were taken in 2024.

## REPORT ON IDENTIFIED RELIABILITY DEFICIENCIES

Paragraph 51 of the Docket 7081 MOU requires that the VSPC, VELCO and the distribution utilities report progress on identified reliability deficiencies at least annually to the Commission. VELCO presented the findings of the 2024 Vermont Long-Range Transmission Plan analysis to the VSPC at the January 24, 2024 quarterly meeting. The plan identifies four bulk system issue areas – Northern, Northwest, Central and Southern Vermont – with projected load growth that may need solutions by 2033<sup>5</sup>. VELCO is currently conducting additional analysis to better understand the duration and frequency of the violations identified in the 2024 Vermont Long-Range Transmission Plan, which will enable the Non-Transmission Alternative study group to start their work in early 2025.

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<sup>5</sup> A summary table is available on page 5 that describes each area’s concerns, cost estimate, NTA screening and lead and affected utilities.

SUMMARY OF BULK SYSTEM REGIONAL GROUPING & TRANSMISSION SOLUTIONS	TRANSMISSION PROJECT ESTIMATED COST	SCREENED IN OR OUT OF FULL NTA ANALYSIS	LEAD & AFFECTED DISTRIBUTION UTILITIES
<b>Northern area</b> <ul style="list-style-type: none"> <li>N-1-1 contingencies causing overload &amp; voltage collapse exposure</li> <li>Install a new 115 kV line between Essex and Williston</li> <li>Affected transformers: Queen City, Tafts Corner, Barre</li> <li>Need date is 2032 based on winter expected forecast</li> </ul>	\$120M Three X \$11M	Screened In  75 MW of load reduction in northern area by 2033 Grows over time	Lead: GMP  Affected: All VT
<b>Northwest area – includes northern area</b> <ul style="list-style-type: none"> <li>N-1-1 contingencies causing thermal overload</li> <li>Rebuild West Rutland to Middlebury 115 kV line</li> <li>Affected transformer: Middlebury</li> <li>Need date is 2029 based on summer expected forecast</li> </ul>	\$215M \$13M	Screened In  80 MW of load reduction in northwest area by 2033 Grows over time	Lead: GMP  Affected: All VT
<b>Central area – includes northwest area</b> <ul style="list-style-type: none"> <li>N-1-1 contingency causing thermal overload</li> <li>Rebuild Coolidge - Cold River - North Rutland 115 kV line</li> <li>Affected transformers: North Rutland, Cold River, Windsor</li> <li>Need date is 2034 based on summer expected forecast</li> </ul>	\$185M Three X \$13M	Screened In  Keep load below 2033 load level in central area Grows over time	Lead: GMP  Affected: All VT
<b>Southern area – includes central area</b> <ul style="list-style-type: none"> <li>N-1-1 contingency causing thermal overload</li> <li>Rebuild NGRID Bellows Falls-Ascutney Tap 115 kV line and GMP Vernon Road to Newfane 46 kV</li> <li>Affected transformer: GMP Vernon Road 115/46 kV</li> <li>Need date is 2034 based on summer expected forecast</li> </ul>	No VELCO estimate	Screened In  Keep load below 2033 load level in southern area Grows over time	Lead: GMP  Affected: All VT, NGRID
<b>State of Vermont</b> <ul style="list-style-type: none"> <li>N-1-1 contingency causing thermal overload</li> <li>Install new 345 kV line between Vernon &amp; Eversource Northfield, MA</li> <li>Affected transformers: Bennington</li> <li>Need date is 2034 based on summer expected forecast</li> </ul>	\$5M for VELCO portion \$13M	Screened In  Keep load below 2033 load level in Vermont Grows over time	Lead: GMP  Affected: All VT, Eversource

**Bulk System result summary - Policy Scenario**