



**Draft Meeting Minutes  
January 25, 2024  
South Burlington, Vermont**

The Vermont System Planning Committee held a quarterly meeting on January 25, 2024. Shana Louiselle called the meeting to order at 9:30 a.m.

**Taylor Newton moved to approve the October 25, 2022 minutes, and Hantz Pr sum  seconded. The minutes were approved without objection.**

## **Introductions**

A list of attendees by sector appears at the end of these minutes.

## **Annual Report**

Shana Louiselle reported that the draft VSPC annual report has been sent to the full committee for review. **Hantz Pr sum  moved and Dave Westman seconded approval of the draft annual report. The motion was adopted without objection.**

[Note: the report was filed with the Vermont Public Utility Commission on February 2, 2024.]

## **Coordinating Subcommittee**

Shana Louiselle reviewed the 2024 meeting calendar:

- April 19, 2024 – Kirk Alumni Hall, Middlebury
- July 17, 2024 – Trapp Family Lodge, Stowe
- October 23, 2024 – TBD

Ms. Louiselle reported that the VSPC website has been redesigned and will still continue to be a hub for meeting materials and subcommittee work.

## **2024 Vermont Long-Range Transmission Plan**

Hantz Pr sum , Senior Director of Transmission Planning at VELCO, presented the findings of the draft 2024 Vermont Long-Range Transmission Plan. The analysis identified transmission needs driven by increasing load from electrification, and the expected expansion of distributed generation as a result of Vermont’s renewable energy goals. Mr. Pr sum  reviewed potential transmission solutions and discussed the non-transmission alternatives such as energy efficiency initiatives, demand response strategies and the integration of storage solutions.

The presentation revealed critical areas of concern within the existing transmission infrastructure including instances of transformer overloads, sub-transmission line overloads particularly during contingencies, and constraints in hosting capacity for additional PV solar installations if sited in specific areas of the state. The estimated financial commitment for potential transmission upgrades, excluding load control measures, surpassed \$800 million. The assessment under the high load policy scenario revealed concerns, with seventy-five miles of Vermont's transmission system identified as having overloaded lines and 19 overloaded transformers. This marks the first plan since 2015 to highlight electric transmission reliability deficiencies. Notably, two of the five proposed transmission solutions are needed within the first decade of the plan. Mr. Presume highlighted the criticality of continued collaboration, data sharing, and innovation to advance non-transmission solutions and successfully meet Vermont's reliability needs.

The VSPC will have 60-days to review and provide input to VELCO. VELCO will then issue a public review draft, and host a public outreach process in April and May 2024. Public input will then be incorporated into the final plan, which must be filed to the Vermont Public Utility Commission (PUC) by July 1, 2024. Any identified reliability issues requiring full non-transmission alternatives analysis will become the focus of the VSPC's monitoring and collaborative efforts in the subsequent three-year period. The full presentation is available [here](#).

## **VX Platform – Harnessing data for Reliability Transmission Operations through Grid Transformation**

Danielle Hammond, Project Manager, and Dan Kopin, Innovation Manager at VELCO, provided an overview of the VX Platform. The presentation underscored the evolving complexity of grid management and the need to leverage advanced technology for long-term reliability. Current tools like PSS/E, PSCAD, Aspen, and monarch operate independently but share data similarities, necessitating integration for synchronized data and enhanced reliability. The proposed VX platform aims to achieve this integration, utilizing PSS/ODMS for network modeling and Cimphony for GIS and Common Information Model (CIM) integration.

Upgrades to the facility ratings application and monarch system were highlighted, with ongoing workshops with distribution utilities ensuring usability for all stakeholders. Siemens' time-based modeling capability offers flexibility to incorporate ongoing projects into models, with proof of concepts already completed for the network model management. The technical example provided illustrated the level of detail within the PSS ODMS tool, emphasizing the importance of maintaining data consistency across planning, engineering, and operational systems. The presentation concluded with commissioning criteria, including the validation of SCADA EMS control points and the absence of personally identifiable information in the VX platform.

Mr. Kopin also shared the implications of FERC Order 901, issued in October 2023, regarding the reliability of inverter-based resources connected to the grid. The order mandates that by November 2024, these resources must ride through disturbances without tripping offline. Additionally, by November 2025, transmission planners and operators must incorporate distributed energy resource data into their models for validation. NERC's proposed approach for implementing Order 901 was recently published, signaling rapid developments in this area. Contingency analysis requirements are set for November 2026, with a focus on preparedness for potential system-wide disruptions. The urgency of

implementation, aiming for effectiveness and enforceability before 2030, underscores the need for prompt action and planning. The full presentation is available [here](#).

## ISO-New England Update

Sarah Adams, Vermont External Affairs Representatives for ISO-NE, Sarah Adams from ISO New England provided updates on operations, markets, and regional planning studies. Topics covered included the 2033 Vermont Needs Assessment, which identified a thermal need on the K-32 line under winter peak conditions, and the treatment of legacy distributed energy resources (DERs). ISO New England is proposing a New England daytime minimum load needs assessment to address potential issues from DER tripping. Updates were also given on the 2050 Transmission Study, the Regional System Plan, and the interconnection queue. The full presentation is available [here](#).

## Offshore Wind: What does it mean for Vermont?

Lawrence Mott, Manager of Transmission Development at Ocean Winds, provided insights on offshore wind development. Topics covered included project challenges, costs, supply chain constraints, grid integration, and the need for regional coordination. Mott highlighted the potential for offshore wind to contribute significantly to New England's renewable energy goals but also emphasized the complexities and risks involved in developing these large-scale projects.

## Policy and Project Updates

- **Flexible Load Management Working Group:** Melissa Bailey from the Public Service Department discussed plans to establish a Flexible Load Management Working Group under the VSPC in response to a PUC order to address Efficiency Vermont's budget for Flexible Load Management activities over the next three years. The group, led by the PSD, will quantify benefits and costs of flexible load management, define roles and responsibilities between utilities, and assess the potential for load shifting in Vermont. The working group is open to all who would like to participate, and aims to support the state's energy transition and accommodate significant load growth from electrification.
- **DOE federal funding status updates**
  - **Twin States Clean Energy Link:** Terron Hill from National Grid presented the Twin States Clean Energy Link project, proposing a 1200 MW HVDC interconnection between Quebec and New England. The project aims to balance renewable energy and provide dispatchable hydropower when wind and solar are not available. Potential benefits discussed included \$8 billion in energy savings for New England over 12 years, \$51 million annual savings for Vermont ratepayers, and community investments. The project involves underground cables, converter stations, and upgrades to existing transmission lines. National Grid is seeking subscribers (utilities and Hydro-Quebec) to participate and secure transmission capacity.
  - **VELCO GRIP Application:** Brian Connaughton, Vice President of Transmission Services & Asset Maintenance at VELCO, provided updates on VELCO's GRIP applications. The first application, awarded DOE funding, involves a Smart Wires installation to supplement an existing phase-shifting transformer at the Sandbar substation. The second concept paper proposes an HVDC line utilizing existing VELCO rights-of-way, and the potential

relocation/replacement of the existing Highgate converter station to a VELCO property in Williston. The lead time for a converter is 10 years. Both projects aim to enhance transmission capabilities and facilitate renewable integration.

## Attendance

\* Indicates voting member

\*\* Indicates alternate

### Public Sector

- \*Tim Duggan, Residential representative
- \*Taylor Newton, Regional Planning rep
- \*\*George Gross, Regional Planning rep
- \*Johanna Miller, Environmental representative
- \*\*Steve Crowley, Environmental representative
- \*Michael Kirick, Commercial representative

### Transmission Utility (VELCO)

- \*Hantz Pr sum , VELCO
- \*\*Frank Etori, VELCO

### Distribution Utilities Providing Transmission (GMP, VEC)

- \*Kamran Hassan, GMP
- \*\*Doug Smith, GMP
- \*\*Michael Beaulieu, VEC

### Large Transmission-Dependent Distribution Utilities (BED, WEC)

- \*Bill Powell, WEC

### Transmission Dependent Distribution Utilities (Municipals)

- Sarah Braese, VPPSA
- Scott Johnstone, Morrisville Water and Light
- Tom Petraska, Ludlow Light and Electric

### Supply & Demand Resources

- \*Dave Westman, EVT
- \*Nathaniel Vandal, Green Peak Solar

### Non-Voting Members

Philip Picotte, PSD

### Staff

Shana Louiselle, VELCO

### Guests

- Abhinav Rawat, National Grid
- Alex McClean, Leonine
- Anne Margolis, PSD
- April McCoy, VPPSA
- Betsy Bloomer, VELCO
- Brian Hall, VEC
- Brad Williams, BED
- Brian Connaughton, VELCO
- Cam Tworang, GMP
- Craig Kieny, VEC
- Cyril Brunner, VEC
- Dan Kopin, VELCO
- Dan Nelson, VELCO
- Dan Potter, VEC
- David Mullet, AllEarth Renewables
- Jason Pew, VELCO
- Jay Pilliod, EVT
- John Dasaro, Village of Enosburg
- Jonathan Dowds, REV
- Kerrick Johnson, VELCO
- Khalid Osman, VELCO
- Kyle Landis-Marinello, VELCO

Lucas Looman, VELCO  
Marc Allen, VELCO  
Mark Sciarrotta, VELCO  
Melissa Bailey, PSD  
Michael Gadway  
Michael Lesley, National Grid  
Mike Fiske, VELCO  
Molly Connors, NEPGA  
Morgan Casella, DO  
Paul Nadeau, BED  
Sarah Adams, ISO-NE  
Terron Hill, National Grid  
Tom Lyle, BED  
William Jerome  
Zakia El Omari, VELCO

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