



**Final Meeting Minutes  
January 25, 2017  
DoubleTree Hotel  
South Burlington, VT**

The Vermont System Planning Committee (VSPC) held a regular meeting on January 25, 2017, at DoubleTree Hotel, South Burlington, Vermont. Deena Frankel called the meeting to order at 9:35 a.m.

Steve Litkovitz moved approval of the October 19, 2016, minutes; Hantz Pr sum  seconded. The minutes were approved without objection.

## **Introductions**

Participants introduced themselves. A list of attendees by sector appears on page 8 of these minutes.

## **Subcommittee Reports**

### **GEOGRAPHIC TARGETING SUBCOMMITTEE**

Ms. Frankel reported that the Geographic Targeting Subcommittee met on January 10. The subcommittee discussed alignment of the GT subcommittee’s charter with VSPC charter adopted in 2016. After reviewing the charter, the subcommittee determined no changes were needed. The committee also discussed the project screening template and its ability to provide a uniform approach to sharing non-transmission alternatives (NTA) screening and other information among all of the distribution utilities and other participants. The subcommittee questioned whether the template should be simplified for consistency. Due to the lack of representatives from a number of utilities, VSPC staff will reach out to individual members to obtain more feedback.

Mr. Pr sum  reported that the subcommittee reviewed the East Avenue/Queen City Project NTA screening that proposes to install reactors at the East Avenue substation to limit the amount of fault duty at both substations. A petition for a Certificate of Public Good is expected to be filed this year. The screening indicates a non-transmission alternative would not be viable because short circuit issues cannot be addressed by reduction of loads or by additional generation. (The screening form is included in the meeting packet.)

Ms. Frankel reported that subcommittee member Nathaniel Vandal provided an overview presentation on use models for distributed generation and storage, which is available on the VSPC website. The subcommittee is scheduled to meet again on March 28 for continued discussion on the reporting template and preparation for annual project reviews.

## FORECASTING SUBCOMMITTEE

Mr. Pr sum  reported that the Forecasting Subcommittee met on January 24 to discuss the load forecast approach for the 2018 Long-Range Transmission Plan. Analysis for the transmission system will start this year with a draft report expected at the end of 2017 and a published report ready for July 2018. As in past years, Itron is contracted to help develop the load forecast and Eric Fox of Itron will be working with VELCO and the subcommittee. Mr. Fox presented to the subcommittee and highlighted flat and declining electric sales trends in most parts of the country and the weakened correlation between GDP and electric sales. More work needs to be done on forecasts of photovoltaics, electric vehicles, cold-climate heat pumps, storage and Tier 3 impacts. The subcommittee will explore the idea of testing scenarios involving electric vehicles and assigning probabilities to each scenario. The next subcommittee meeting is scheduled for February 9.

## COORDINATING SUBCOMMITTEE

The next VSPC quarterly meeting is scheduled for April 26, 2017, at the Middlebury Inn. The remaining 2017 VSPC meeting schedule is as follows:

April 26, 2017—Middlebury, Inn, Middlebury  
July 19, 2017—DoubleTree, South Burlington  
October 18, 2017—Holiday Inn, Rutland

## VSPC ANNUAL REPORT

Ms. Frankel reported that the draft annual report has been sent to the full committee for review. Additional language was added to acknowledge the requirement to provide status updates for geographically targeted areas. Currently, no area of the state is approved for geographic targeting, however, adding a placeholder to the annual report will help ensure the requirement is not overlooked in future years.

**Mr. Pr sum  moved and Rip Kirby seconded approval of the draft annual report. The motion was adopted without objections.**

The VSPC Annual Report will be submitted by February 9. [Note: the report was filed on January 31, 2017 and is available on the VSPC website.]

## New Business

### DOCKET 8875: INVESTIGATION INTO ADDING AN ADDITIONAL SEAT REPRESENTING TOWNS & REGIONAL PLANNING ORGANIZATIONS TO THE VSPC

Ms. Frankel reported on a Public Service Board (PSB) proceeding to consider adding an additional seat at the VSPC to represent the interests of towns and local/regional planning commissions. Comments were originally due by January 13, 2017, however, the VSPC filed a request for an extension to allow time for discussion with the full committee at the January quarterly meeting. The committee's general reaction was supportive of the additional seat.

As a straw man for discussion, Ms. Frankel suggested the VSPC submit comments to the PSB with the following substance:

- The new seat should be included in the existing Public Members sector. Voting would then be determined by the majority vote of four, rather than the current three members.
- The new seat should hold the same five-year period as the other Board-appointed seats.
- The PSB should conduct the same type of broad, open solicitation of candidates it undertakes for other public seats on the VSPC.
- The proposed order should provide a 30-day opportunity for comments

Following discussion and questions, the consensus of the group was to support the position outlined. A draft letter, reflecting this position, will be sent to the committee for review. If the letter has unanimous support, it will be sent to the Board by February 9, 2017.

[The VSPC recommendation letter was filed with the PSB on January 31, 2017, and is available on the VSPC website.]

#### **IEEE 1547 REVISIONS UPDATE**

Jeff Carrara, electrical engineer with VELCO and chair of the Green Mountain Section of the Institute of Electrical and Electronics Engineers (IEEE) Power and Engineering Society, reported on revisions now under development to Standard IEEE 1547, which establishes criteria and requirements for interconnections to the distribution system. A key focus of the revisions is to better accommodate intermittent, inverter-based generation. The new standards will allow inverter-based generation to ride through brief perturbations on the grid, and will address other technical challenges that have arisen with the increase in intermittent renewables such as, response to abnormal conditions, power quality, islanding, and test specifications and requirements for design, production, installation evaluation, commissioning and periodic tests. The standard could be in effect by summer 2017.

An IEEE GMS PES presentation by Babak Enayati from National Grid is scheduled on February 22 to hear more about the new standard.

#### **DOE DISTRIBUTED ENERGY RESOURCE INTEGRATION MEETING**

Ms. Frankel reported on an upcoming workshop hosted by VELCO entitled “Voices of Experience: Integrating Intermittent Resources” in collaboration with the US Department of Energy, Office of Electricity Delivery and Energy Reliability. The workshop will be the third and final in a series DOE has held with utilities around the nation to hear first-hand the successes and challenges of distributed energy resources integration. The workshop will be interactive with a focus on bringing people to the table that have experience with DER integration, with an emphasis on distribution utilities. The meeting will take place on February 23 at the Essex Resort in Essex, VT. More information will be released soon. Distribution utilities and others are invited to attend and participate. At the end of the process, DOE will produce a report that summarizes the input they received.

#### **PUBLIC PARTICIPATION SUBCOMMITTEE**

Ms. Frankel reported that the website will have a project index on all the projects screened by the VSPC since 2007. The index will provide information on past and present projects. The Public Participation subcommittee needs to meet to discuss more updates to the website.

### **Regional/ISO New England Updates**

Molly Connors from ISO-New England (ISO-NE) provided an overview on the upcoming Forward Capacity Market auction. The auction will begin on February 6, 2017, to procure capacity resources needed for the 2020–2021 capacity commitment period. The net installed capacity requirement is calculated at 34,075MW. ISO-NE will model three capacity zones comprised of the Northern New England Capacity Zone (VT, NH, ME), Southeastern New England Capacity Zone (NEMA/Boston and SEMA/RI), and the Rest-of-Pool Capacity Zone (WCMA, CT). Auction results will be released to public shortly after the auction and subsequently ISO-NE will file final results with FERC.

Ms. Connors provided an update on the December 16, 2016, Distributed Generation Forecast Working Group (DGFWG) meeting. Each state was represented by the equivalent of its Public Service Department to discuss state renewable policies, solar PV penetration and future expectations for solar PV growth. ISO-NE reviewed the results of its latest survey of distribution companies through August 31, 2016. A draft 2017 PV forecast will be available in February 2017. The next DGFWG meeting takes place on February 28, 2017, to discuss and provide comments on the draft. The final PV forecast will be issued in April 2017 and the ISO-NE will post the PV forecast as part of the 2017 CELT report in May 2017.

Ms. Connors reported that ISO-NE initiated the public policy transmission upgrade process on January 11, with a public notice requesting input on state, federal and local public policy requirements driving transmission needs. Stakeholders will have the opportunity to provide input at the February 9 Planning Advisory Committee meeting.

Mr. Ettori reported on a FERC Notice of Proposed Rulemaking (NOPR) and an ISO-NE market rule change. FERC issued a NOPR that would create a mechanism to incorporate distributed energy resources into the wholesale market. Last year ISO-NE made a market rule change to allow for wind and solar resources to be considered a dispatchable resource as long as they don't exceed a threshold limit. The change is important to New England because in constrained areas resources are competing to stay online and causing a significant amount of negative pricing.

## **Policy and Project Updates**

### **NET METERING RULE UPDATE**

Ms. Frankel reported (on behalf of Melissa Bailey) that the net metering program went into effect on January 1, 2017, by Board order and the Board has filed the final proposed rule with the Legislative Committee on Administration Rules to review for consistency with the statute and move toward final rule adoption. A summary of the net metering rule changes can be found on the VSPC website in the material for this quarterly meeting.

### **INTERCONNECTION RULE**

Ms. Frankel reported the Department of Public Service (DPS) petitioned the Board for rulemaking with a draft of the rule and no action has been taken yet by the PSB.

### **RENEWABLE ENERGY STANDARD**

Bill Powell reported each utility has filed a plan with the PSB pertaining to the Renewable Energy Standard requirements. WEC's plans include a combination of cold-climate heat pumps (CCHPs), heat pump hot water heaters, weatherization, solar hot water, and pellet boilers, all of which have been

reviewed by the Technical Advisory Group (TAG). WEC plans to install 20 heat pump hot water heaters and CCHPs among their members in 2017 and will place a strong emphasis on weatherization building standards. Mr. Powell pointed out that the VSPC will need to be aware of the impacts of Tier III implementation on Vermont loads over time.

Cyril Brunner reported on some of the initiatives in VEC's Tier III plan including the Clean Air Program aimed at transitioning local sugar makers from fossil fuel generators to line extensions, CCHPs and electric vehicles.

## VWAC

Frank Ettori reported on the newly added peak load management tool used to provide advance notice of monthly VELCO and Vermont distribution utility peak loads and ISO-NE yearly peaks. Data will include date and time of when the peak will occur, probability of occurrence, and forecasted MWh load. The tool will enable distribution utilities to reduce peaks to minimize capacity costs, regional network service costs, and future transmission projects. The program is a collaborative effort among VELCO, the distribution utilities and IBM, and could save significant money for Vermont ratepayers. A pilot program is in the planning stages.

Mary Coombs, VWAC project manager, provided an update on the High Performance Computer Cluster build-out at VELCO. The data center is expected to be operational by February 16 and it will take over a month for the installation of applications. The purpose of the build-out is to move the core hardware from IBM to Vermont. A second unit will be installed in 2018 allowing all models to be run in Vermont and disconnected from IBM once they have been tested.

## Project Updates

### STATUS UPDATE OF REMAINING DEFICIENCIES

**Connecticut River Valley:** Mr. Pr sum  reported that the project is under construction at the Ascutney, Hartford, and Chelsea substations, as well as reconductoring of the K31 line. All construction is expected to be complete by 2018.

**Northern area:** Mr. Pr sum  reported the project is still on hold until load increases.

**Hinesburg:** Mr. Litkovitz reported that GMP and VEC are moving ahead with a joint substation and GMP is currently acquiring land for a battery storage system.

**Rutland:** Mr. Kirby reported the Rutland peak load is declining and the area continues to be monitored.

### OTHER VELCO PROJECTS

**PV-20 Replacement Cable:** Mr. Pr sum  reported that directional drilling has started on the New York side of the cable. Work was suspended in November and will continue in the spring. The submarine cable construction will be completed in the fall 2017.

**Structure Replacement Project:** Mr. Pr sum  reported that the SCI program is aimed at replacing aging structures and is currently replacing 300 structures per year.

## **Regional Projects**

Mr. Pr sum  reported on the development of three ISO-NE interconnection studies. The VT Green Line studies have been completed and the project is in the Section 248 state process. ISO-NE studies have been completed for New England Clean Power Link connecting to the Coolidge Substation. TDI-NE has asked for additional studies. The Section 248 application that was filed will need to be amended to include the transmission and subtransmission upgrades needed. Studies have been completed for a 20 MW solar PV connection project adjacent to Coolidge substation, which is currently in the Vermont Section 248 process. No additional analysis needed.

## **Adjournment and next meeting**

The meeting was adjourned at approximately 1:30 p.m. The next quarterly meeting is scheduled to be held from 9:30 a.m. to 4:00 p.m. on April 19, 2017, at the Middlebury Inn, Middlebury, VT.

## ATTENDANCE

\*Indicates voting member

\*\*Indicates alternate

### Public Sector

Michael Kirick

### Transmission Utility (VELCO)

Hantz Pr sum , VELCO

Frank Etori, VELCO

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

\*Steve Litkovitz, GMP

\*\*Kim Jones, GMP

\*Cyril Brunner, VEC

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

\*Bill Powell, WEC (by phone)

\*Munir Kastl, BED

### Transmission Dependent Distribution Utilities (Municipals)

### Supply & Demand Resources

Nathan Vandal

Gillian Eaton, VEIC

Dave Westman, VEIC

### Non-Voting Members

Allan St. Peter, PSD

### Staff

Deena Frankel, VELCO

Shana Louiselle, VELCO

### Guests

Rob Hornton, GMP

Molly Connors, ISO-NE (by phone)

Michael Wickenden (by phone)