



**Draft Meeting Minutes
April 29, 2015
Courtyard Marriott
Middlebury, VT**

The Vermont System Planning Committee (VSPC) held a regular meeting on April 29, 2015, at Courtyard Marriott, Middlebury, Vermont. Deena Frankel called the meeting to order at 9:35 a.m.

Bill Powell moved approval of the January 28, 2015, minutes, Steve Litkovitz seconded and the minutes as corrected were approved without objections.

Introductions

Participants introduced themselves. A list of attendees by sector appears on page 7 of these minutes.

Subcommittee Reports

GEOGRAPHICAL TARGETING SUBCOMMITTEE

Mr. Litkovitz reported that the subcommittee met in March to focus on two components of Green Mountain Power's Rutland Reliability Plan—the engineering analysis and an energy efficiency assessment that identified the amount of EE in the area. The subcommittee will meet in May to review NTA screening for newly identified distribution and subtransmission constraints not identified in the 2015 Vermont Long-Range Transmission Plan. Recommendations regarding new deficiencies with potential for non-transmission alternative solutions will be brought to the full VSPC in July. Recommendations for new reliability plans will be filed with the Vermont Public Service Board (PSB) by October 30.

Mr. Litkovitz reported that TJ Poor has left the Public Service Department (PSD) to work for the Vermont Public Power Supply Authority (VPPSA), and that the new chair of the VSPC Geographical Targeting Subcommittee will be John Woodward, Utilities Economic Analyst at the PSD. Discussion among participants indicates strong support for a PSD representative chairing this key subcommittee. The PSD is able to bring all utilities to the table and provide early and frequent feedback throughout the process, thereby improving the efficiency of the formal Section 248 process. VSPC bylaws do not include a formal procedure for appointing the chair, which has, to date, been done by consensus.

Ms. Frankel added that the PSD is uniquely positioned to drive the formal geographic targeting process assigned to the VSPC and carried out by the Geotargeting Subcommittee.

George Nagle offered that Mr. Woodward has worked with the PSD for a year. His background is in economics, statistics, and econometrics, with experience in forecasting. Mr. Nagle currently works in the planning division with Asa Hopkins and works closely with the Vermont Comprehensive Energy Plan.

Overall, Mr. Nagle offers an analytical background that looks at statewide issues. Mr. Nagle would be willing to join the forecasting subcommittee as vice chair.

GMP Reliability Plan for Rutland Area

Rip Kirby reported on the Rutland Reliability Plan. The area of concern focuses on Blissville, Rutland, and Cold River. Mr. Kirby presented the information contained in the Rutland Reliability Plan slides posted on the VSPC website for the meeting.

Subcommittee reports

FORECASTING SUBCOMMITTEE

Carole Hakstian reported that the subcommittee recently revised the Forecasting Subcommittee Charter to clarify the schedule it contains to be more generic, and introduce two sections describing the work plan both for years that include and do not include a Vermont Long-Range Transmission Plan update. The subcommittee also outlined the inputs to forecasting. The revision does not make major changes; just reorganizes for clarity. Ms. Hakstian asked for approval of the VSPC.

Michael Wickenden moved and Mr. Kirby seconded to approve the revised Forecasting Subcommittee Charter. The motion was adopted without objection.

Ms. Hakstian reported that Shawn Enterline from Green Mountain Power (GMP) presented GMP's Integrated Resource Plan (IRP) and discussed forecasting methodology, resource options, generation costs, portfolio design and the IRP's alignment with GMP's strategic direction and actions. Mr. Enterline's presentation can be found in the Subcommittee library on the VSPC website.

Ms. Hakstian reported that John Woodward had been selected as vice-chair of the Forecasting Subcommittee, but that the subcommittee will revisit his appointment in light of his new role as chair of Geographic Targeting.

The next Forecasting Subcommittee meeting will be held on May 12 at VELCO. The subcommittee will review weather data provided by VELCO to see if there are advantages to using a shorter weather forecast. The subcommittee will look at IRP consistency to standardize IRP inputs and develop "consensus" forecasts for optional use by distribution utilities. The subcommittee will also discuss the H.40 legislation to see how it will impact the forecast.

PUBLIC PARTICIPATION SUBCOMMITTEE

Ms. Frankel reported another leadership change. George Twigg, who has served as chair of the Public Participation Subcommittee has left VEIC. Ms. Frankel sought VSPC input on asking VEIC to offer a representative to replace Mr. Twigg. Participants had no objection to that approach. The Public Participation Subcommittee has not met since the last VSPC meeting. A next focus for the subcommittee will be on increasing participation by public members and determining how to frame the committee's work in a manner more accessible the public in general. Day-long meetings are challenging for public participants. Johanna Miller commented that it is challenging to participate fully during legislation session, and asked how we can make the work more relevant to the conversation around the energy planning? For example, she suggested finding ways to link the Comprehensive Energy Plan public input process that will take place later this year. Ms. Frankel asked if the VSPC would be interested in having a

presentation from Ms. Miller on what is happening with local energy committees. The response was affirmative and Ms. Miller agreed to work with VSPC staff to put this topic on the July VSPC agenda.

Presentation on Vermont Weather Analytics Center

Kerrick Johnson provided an update on VELCO's Vermont Weather Analytics Center Project, a two-year research project with IBM to develop predictive weather modeling 48 hours in advance down to one square kilometer resolution, to increase accuracy of state load forecasts, produce generation forecasts for solar and wind farms, and to integrate the forecasting models' results to optimize the value of Vermont's generation, demand response and transmission assets. Mr. Johnson reported that several performance metrics have been met in 2015 including successfully coupling Deep Thunder to forecast models with improved accuracy, an improved downstream accuracy of one square kilometer resolution, modeling and displaying two farm methane installations in Vermont with more than 85 percent accuracy, modeling and displaying all 13 solar farms with more than 1MW with 86 percent accuracy, increasing the number of substations from 41 to 60, and improving the accuracy to +/-3 percent.

Upcoming milestones will include securing weather station installation before the end of Q3 2015, expanding modeling to private renewable facilities, use of "real time" data across models, complete interface with Demand and Renewable models for June 2015 comprehensive "proof of concept" demo, and deeper ISO-NE project participation.

Subcommittee reports

COORDINATING SUBCOMMITTEE

Shana Louiselle reported the 2015-2016 VSPC meeting schedule.

- July 22, 2015, Capitol Plaza, Montpelier
- October 14, 2015, Holiday Inn, Rutland
- January 20, 2016, DoubleTree, Burlington
- April 27, 2016, Courtyard Marriott, Middlebury

There were no comments or objections to the dates or locations.

Update on 2015 Vermont Long-Range Transmission Plan (LRTP)

Mr. Pr sum  reported on the LRTP public meetings at Rutland and Montpelier. VELCO is currently holding meetings with regional planning commissions to answer questions about the plan and load forecast. Next steps will be to incorporate comments received. Currently pending RESET legislation (H.40) will, if enacted, have an impact on load forecast. The curves in the plans could change significantly. Staff will send out draft edits to accommodate the Rutland Reliability Plan submitted after the Public Review Draft was issued. A new chapter will be included in the final plan on public input, as has been done in past years. The final plan will be filed with the PSB and PSD by July 1.

Regional/ISO-New England Updates

A report on the regional issues can be found in the VSPC meetings section on the VSPC website.

ISO-NE Distributed Generation Forecast Working Group (DGFWG)

Melissa Bailey reported that an interim PV forecast was adopted in May 2014 based on 2013 installation data from distribution utilities and state policy goals. The forecast assumed distributed generation (DG) installed prior to 2013 was already embedded in the load forecast. The 2014 DG forecast was not used in setting the region's Installed Capacity Requirement (ICR) for Forward Capacity Auction (FCA) 9. This has raised concerns for some stakeholders in the region. Stakeholders would like to see the DG forecasts inform the planning studies.

In preparation for drafting the 2015 ICF, ISO contracted with ICF International to identify the economic drivers of PV development and to draft a report. The consultants looked across six states, and three different projects of all sizes. Some uncertainty remains about the economics.

ISO-NE surveyed the New England states for installed DG as of 12/31/14 and has requested more information about project status, location, installed capacity, technology type, and the how ISO should interpret these data. (For Vermont this includes net metering, standard offer and small utility-scale projects). A draft PV forecast was submitted by ISO in February 2015 and received stakeholder input. The 2015 PV forecast demonstrates Vermont can expect 25 MW over the next ten years.

The 2015 PV forecast shows that PV development is occurring more rapidly than projected in the 2014 PV forecast.

Next steps—final forecast will be included in the 2015 CELT report issued on May 1. The next DGFWG meeting will be held in June and will focus on data collection efforts. At that meeting, ISO staff will share the PV forecast and methodologies.

Old Business

NET METERING AND INTERCONNECTION PROCESSES UPDATE

Ms. Bailey updated the group on the general process and rate structure working groups. The working groups are comprised of developers, utilities, PSD staff, advocacy groups, and interested citizens and have acted as a forum for discussion regarding the components of the net metering program without attempting to come up with a proposal for a new rule or to build consensus. The PSB is using this process to gather information and will issue a draft rule for comment afterwards. A new net metering rule must take effect in 2017.

Ms. Bailey report that the general process working group is focused on the net metering application process, transfer of CPGs, siting of adjacent projects, project tracking and verification, Section 248 applications for net metered projects, general siting considerations and billing standards and procedures.

The rate structure working group is focused on “use it or lose it” policy for net metering credits, bi-directional and time-of-use rates, minimum bills, stand-by charges, Washington Electric Cooperative's net metering program, net metering as a rate class, the value of net metering and renewable energy credits.

The working groups will meet twice more. The Board will then issue a draft rule in June. The final rule must be adopted by the PSB prior to July 1, 2016.

Carolyn Anderson reported that the interconnection working group has been meeting to discuss the revision of the interconnection rules independent of the net metering discussion. Whereas the rate structure and general process groups are being convened by the PSB, the interconnection group is being convened by the PSD and the scope includes all interconnection issues, not only net metering. The goal is to use the ISO small generator interconnection rule and revise it to make it applicable to VT and to accommodate DG and renewable goals in Vermont. At the first meeting, Dave Forrest, of ISO-NE, talked about the technology ISO-NE will be looking for to make DG more visible to utilities and ISO-NE (i.e., smart inverters) and how the IEEE standards are being taken into account. The second working group focused on visibility in two respects: visibility of DG to utilities for purposes of reliable, safe grid operations, and visibility to developers regarding where the grid can best accommodate DG. GMP presented on its current DOE-funded project through which it is creating a web-based mapping tool of its system to assist developers in making workable siting choices and to streamline GMP's ability to respond to developer inquiries. So far only 60 circuits have been mapped, but the project will be done by 2016. The next step is for the PSD to draft a "strawman" proposal using ISO's interconnection rule as a base, and allow utilities and interested parties the opportunity to provide feedback. The proposal should be available next month.

The PSB electronic filing system, or ePSB, should be operational late in 2015, but, while it will more effectively track the regulatory process, the system will not resolve the availability of real-time operational data.

Deena Frankel suggested that GMP present its mapping tool at the next VSPC meeting. The group indicated interest and GMP indicated willingness to present.

Project Updates

STATUS UPDATE OF REMAINING DEFICIENCIES

Connecticut River Valley: Mr. Pr sum  reported that VELCO is preparing to file an application for a Certificate of Public Good in August. A public outreach process is currently underway seeking comments from communities. VELCO received Section 1.39 approval from ISO-NE indicating that the project will not have an adverse impact on the transmission system. The subtransmission system will have new conductors installed on three sections of line. In-service dates for the projects are staged based on GMP's project process.

Northern area: Mr. Pr sum  reported the project is on hold until VELCO and Vermont Electric Cooperative (VEC) determine how to address the issues of the large customer loads that would affect the area. This deficiency is related to voltage and not transmission capacity.

PV 20: Mr. Pr sum  reported the project is in the permitting stage. Engineering work is underway with the New York Power Authority (NYPA), which owns the New York end of the line. VELCO plans to file a Section 248 permit application for a Certificate of Public Good in June and expects to receive a CPG, if approved by the Board, by the end of this year. The PV20 is an asset condition project, not a reliability

project. Currently seven cables need to be replaced. They will be removed and replaced with four cables, one of which will be a spare, insulated at 230kV, and operated at 115kv.

Georgia Interconnection Project: VELCO's portion of the project has been completed. The GMP portion will be finished in May/June. The line will be commissioned this summer.

Newport Substation: Section 248 application for a Certificate of Public Good has been filed with the PSB. Currently VELCO is answering discovery questions.

Adjournment and next meeting

The meeting was adjourned at approximately 2:00 p.m. The next quarterly meeting is scheduled to be held from 9:30 a.m. to 4:00 p.m. on July 22, 2015, at a Capitol Plaza in Montpelier.

ATTENDANCE

*Indicates voting member

**Indicates alternate

Public Sector

Johanna Miller, VNRC

Transmission Utility (VELCO)

*Hantz Pr sum , VELCO

Distribution Utilities Providing Transmission (GMP, VEC)

*Steve Litkovitz, GMP

*Dean Denis, VEC

Large Transmission-Dependent Distribution Utilities (BED, WEC)

*Bill Powell, WEC

*Munir Kasti

Transmission Dependent Distribution Utilities (Municipals)

*Melissa Bailey, VPPSA

Supply & Demand Resources

Nathan Vandal,
Michael Wickenden, VEIC

Non-Voting Members

George Nagle, PSD

Staff

Deena Frankel, VELCO
Shana Louiselle, VELCO

Guests

Carolyn Anderson, GMP
Gillian Eaton, VEIC
Carole Hakstian, VEIC
Kim Jones, GMP
Kerrick Johnson, VELCO
Rip Kirby, GMP