VERMONT SYSTEM PLANNING COMMITTEE

MEETING MINUTES
DECEMBER 11, 2013
DOUBLETREE, SOUTH BURLINGTON

The Vermont System Planning Committee (VSPC) held a regular meeting on December 11, 2013, at the Doubletree Hotel, South Burlington, Vermont. Deena Frankel called the meeting to order at 9:45 a.m.

Steve Litkovitz moved approval of the September 11, 2013, minutes, Johanna Miller seconded and 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

GEOGRAPHICAL TARGETING SUBCOMMITTEE

Walter Poor, Geographical Targeting Subcommittee (GTS) chair, reported that the finalized geotargeting process improvement document was filed with Public Service Board (the PSB or the Board) on October 4, 2013. The Board held a workshop to discuss the process and has opened a comment period until Friday, December 13, 2013. The subcommittee has implemented process components that do not require Board approval and has requested Board approval where required.

The VSPC held a special meeting October 17, 2013, at which the GTS approved a recommendation for filing with the PSB to stop geotargeting in the Susie Wilson area and to continue geotargeting in the St. Albans area in 2014. The GTS also reviewed areas submitted by utilities and determined that none of those areas being monitored needed a reliability plan.

The GTS met to review the economic models associated with the St. Albans Reliability Plan. GMP presented its Alternative Resource Configuration (ARC) analysis, which evaluated resources that might be available to help meet the reliability gap. The subcommittee and GMP are refining the economic assumptions in the analysis. Preliminary internal subcommittee deadlines are being discussed to include the information in the VSPC annual report.

The Board held a workshop October 8 to discuss revisions to the Docket 7873 Screening Framework and Guidelines for Standard Offer project to incorporate distribution level constraints. Following the workshop, Board staff incorporated several minor changes in the framework that had previously been submitted by the utilities. The comment period is now closed.

Another GTS meeting will be scheduled in December to discuss next steps on the St. Albans Reliability Plan.

FORECASTING SUBCOMMITTEE

Carole Hakstian, Forecasting Subcommittee Assistant Chair, gave an overview of the subcommittee's October 8, 2013, meeting with Eric Fox from Itron. Mr. Fox presented historic trends and Vermont long-term energy and demand data. In the 10 year period, Vermont is seeing flat energy usage. Vermont loads are at the same level today as in 2003. The forecast does not yet include net-metering load adjustments, only currently existing net-metering data.

A meeting was held on November 19, 2013, with Mike Leach from Burlington Electric Department, who presented historical trends going back to 1970 for energy use, peak demand, electric sales, system energy requirements, employment growth, electric rates, natural gas prices, and weather trends.

The subcommittee is discussing a central repository for historic data on the VSPC website for member use or to be available to the public. The VSPC asked questions about how the data would be stored and used, and who would have access to the repository. Following discussion, the subcommittee agreed to consider the VSPC's input and discuss the website idea further.

Ms. Hakstian presented monthly energy use slides to show that the trend in energy usage was sharply upward since the 1950s, with periodic small declines. Around 2000, energy efficiency began playing a part in leveling off usage. The dip in 2009 reflects usage going back to 2008. New England's usage grew faster than Vermont in the first five years of the 2000s. Vermont has had a high demand growth at the same time that peak is flattening.

COORDINATING SUBCOMMITTEE

Ms. Frankel reported on Docket 8073 concerning REV's request for a seat on the VSPC. The VSPC recommended that a seat be created for a supply resources representative in the supply and demand sector. The parties in the docket subsequently filed a Memorandum of Understanding agreeing to create the supply resources seat. The Board approved the MOU as filed and is soliciting letters of interest from potential candidates to fill the new seat.

The VSPC annual report to the Board and Department is due February 15, 2014. Below is the proposed timeline for annual report deadlines:

January 3, 2014—Project specific action plans, reliability updates on screened-in projects, and project updates on screened-out projects to staff.

January 10, 2014—Draft report to lead utilities for review.

January 15, 2014—Lead utility comments.

January 17, 2014—Draft report to VSPC for review.

January 24, 2014—Comments/edits from VSPC.

January 29, 2014—Special phone meeting to act on draft

February 5, 2014—Additional draft and phone conference if needed. Otherwise, approval by email of final draft.

February 7, 2014—VSPC will issue a proposed final draft before filing.

February 14, 2014—Filing,

The VSPC has maintained the same schedule for the past six years: quarterly meetings in March, June, September and December. This calendar no longer aligns well with the work related to geotargeting and the reliability plans for the standard offer docket, nor with the VSPC annual report and Vermont Long-Range Transmission Plan deadlines. Multiple special meetings, in addition to quarterly meetings, have been required to meet deadlines. Ms. Frankel proposed an alternative schedule that would better align with deadlines and reduce the need for special meetings. Staff suggested beginning the new schedule in 2014 by moving the March meeting to April and adopting the revised schedule for all subsequent meetings, subject to the ability to secure meeting space for the new schedule. The proposed meeting dates for 2014 would be:

- January 29, 2014
- April 30, 2014
- July 23, 2014
- October 8, 2014

Hantz Présumé moved to adopt the proposed schedule modifications, subject to being able to arrange meeting space. Ms. Miller seconded. The motion was approved without objection.

Public Participation Subcommittee

George Twigg, chair of the Public Participation Subcommittee, reported that Ms. Frankel gave a presentation of the updated VSPC website to the Public Participation Subcommittee. The subcommittee is trying to re-recruit a member to fill the Commercial Alternate slot. The subcommittee reached out to business groups and did not receive any candidates. The subcommittee is considering ways it can be more involved with public outreach on public policy issues.

Ms. Frankel reviewed the updated VSPC webpage. VELCO released a request for proposal to redesign all five VELCO sites, including VSPC. VELCO contracted with Vermont Design Works for the project. The new VSPC site is more user friendly with easier navigation. It supports public information and the workings of the committee. It will include more information about transmission planning and about VSPC, the Long-Range Transmission Plan, and public outreach to help the public better understand our work. The Get Involved section allows for the public to connect to the process. A news tool will be updated regularly. VELCO expects to complete the project in the first quarter 2014.

NTA Study Group

Ms. Frankel reported that the NTA study group met in December to wrap up last steps for the Central Vermont NTA Study. The ISO-NE study results concluded there was no gap in the 10-year horizon and the Central Vermont project is now out of the regional system plan. The group talked about study costs, and asked to what degree we need to keep our eye on this issue in case ISO's forecast curve is not accurate. The group concluded that there are multiple trends that may influence the situation and Vermont utilities need to keep an eye on the the load forecast; however, ISO is the driver for determining whether there is a deficiency or not. The study group will put together a wrap up presentation for the regional planning commissions and others who participated in the public input process.

REGIONAL/ISO-NEW ENGLAND UPDATES

Status Update on VT/NH Needs Assessment

Mr. Présumé reported there has been little progress because the study is trapped in regional issues. ISO must test combinations of two contingencies that involve all facilities in New England to comply with new NERC standards. The VT/NH study found there are several local areas that are susceptible to loss of load, voltage collapse, and low voltages. Before ISO proceeds with transmission solutions for all concerns, a regional discussion is underway concerning whether and how to resolve all issues, given the significant costs.

ISO is also considering the impact of anticipated generation retirements, including Vermont Yankee at 600 MW. (For scale, Vermont is a 1000 MW system.) In other parts of New England, oil/coal units may retire because they are not running as frequently as they have in the past. ISO-NE's focus now is to address the regional issues and large amount of generation retiring in the next few years.

VELCO Agreement with ISO-NE re: the role of sub transmission for the northern tier

Mr. Présumé reported that ISO-NE operates the transmission system at 115 kV and above, and the VT distribution utilitiess operate the system at 46 kV and below. The VELCO control center, in its role as a satellite of the ISO-NE control center, operates the Vermont transmission system. While the VELCO real-time load flow model includes most of the subtransmission system, the ISO-NE real-time model does not therefore, VELCO plays a critical role in providing local system knowledge to ISO-NE operators, and communicating ISO-NE instructions to the VT distribution utility control centers.

Studies for the Kingdom Community Wind (KCW) plant identified that the Irasburg-to-Johnson 46 kV B20 line will likely overload and trip following a transmission outage. This system response has been a critical assumption in the ISO-NE operational studies that develop system limits used to determine how much generation can run in the northern part of the system. With the B20 line assumed out of service, the limits are lower, which further restricts generation.

In an attempt to increase the amount of energy that the KCW plant can produce, GMP raised the current carrying capacity of the B20 line so that it is likely to remain in service following a transmission outage. Since ISO-NE does not model subtransmission facilities, and ISO-NE needs to have constant visibility of critical facilities, it was not sufficient to simply upgrade the B20 line. Short of modeling the subtransmission system, ISO-NE requested that GMP and VEC monitor and communicate to ISO-NE through VELCO the planned or unplanned status of the B20 line and other lines that can affect the

capacity of the system. If all of these lines are closed, the VELCO control center will send a signal to the ISO-NE control center signifying that the subtransmission system is intact. Alternatively, if any of these lines is open, the VELCO control center will send another signal to the ISO-NE control center signifying that the subtransmission system is opened, and the system limits will be reduced. This procedure is described in an ISO-NE agreement with VELCO and the relevant DUs, GMP and VEC, which allows immediate and constant ISO-NE knowledge of the system state, including the subtransmission facilities that can affect system limits. Such an agreement is necessary because ISO-NE does not have a direct relationship with the VT DUs and the agreement clearly outlines the responsibilities of each entity and lists the subset of subtransmission facilities to which the agreement applies.

Following the implementation of this operating procedure, system limits have been higher the majority of the time and generation has been restricted less often.

Distributed Generation Forecasting Working Group

Mr. Poor reported that the Distributed Generation Forecasting Working Group (DGWG) encouraged ISO-NE to include the impacts of DG into regional system planning. The general agreement with ISO-NE was to begin with solar PV generation. The kickoff meeting was held in September and the next meeting is scheduled for December 16, 2013.

ISO-NE's current DG Forecast includes DG that has obligations in Forward Capacity Market (FCM). Existing non-FCM DG registered in Wholesale Energy Markets is also counted. ISO requests that DG over 1MW in size register. Through this process, more projects are registering beyond the standard offer program. Load reductions from the remainder of existing DG are embedded in historic loads used to develop ISO's 10-year load forecast. A large amount of solar PV in Vermont is expected to come on line in 2015 and 2016. In these two years, another 18 MW of standard offer are expected to come on line. It is important to incorporate this in the forecast now so as not to overbuild the system. In addition, net metering capacity has been growing very rapidly.

The long-term DG forecast may affect system studies, resource adequacy, transmission planning and economic studies. However, the working group will enable stakeholders to share information providing a better understanding of DG impacts on the peak. Many challenges will confront the effort to forecast DG including funding, market/technology uncertainties, double counting of DG resources, timing, location, reliability impacts and development of resource capacity credit.

ISO-NE provided a draft forecast for the states to review. In some cases, ISO assumed zero additional resources, a coincidence factor for both large and small projects and an uncertainty factor. State office called the assumption of zero PV after state programs end unreasonable, called for more justification for coincidence factor and agreed with the uncertainty discount, provided that the discounts begin small and ramp up in the future.

In response to states' feedback, ISO-NE agreed that zero is unreasonable and responded with a proposed 75% discount for uncertainty. ISO-NE will show data to justify that 35% is reasonable. ISO ramped up the discount factor for the in-program MWs. Mr. Poor reported that the methodology seems acceptable for an interim forecast.

Another issues the Working Group is trying to address is the PV impacts on system operation. Although the impacts have not been noticeable to date, there is a concern during about PV disappearing in the late afternoon in the winter, which will increase ramping.

Recent Interconnection Requests

Kerrick Johnson presented on potential merchant transmission projects that have a strong interest in Vermont due to the state's location between the supply of renewable power in New York and Canada and demand to the south and east. Public policy and retirements are becoming a driving force of the "new normal."

Currently, three interconnection requests that have potential impacts for Vermont. The Grand Isle Intertie, a subsidiary of Anbaric Transmission, is a 400 MW, 230 kV, east-west merchant transmission line proposed to run beneath Lake Champlain from Plattburgh, NY, to a new Champlain substation in Essex, VT. The project is currently in the ISO-NE interconnection queue. The New England Clean Power Link, owned by TDI and backed by the Blackstone Group, is a 1000 MW, north-south line traveling under Lake Champlain and terminating at VELCO's Coolidge Substation. The project is currently in the ISO-NE interconnection queue for study. Hydro-Québec is trying to expand export into Vermont via a 425 MW transfer capacity line from Hydro-Québec system to Highgate, VT. The proposal was submitted by HQ Production to Transenergie. VELCO is working with customers, regulators, ISO-NE and other stakeholders to better understand our options and opportunities with a focus on how best to maximize a project's value to Vermont.

FERC Order 1000 Update

Mr. Johnson reported on FERC Order 1000 and cost allocation for public policy projects. In October 2012, FERC submitted a "beneficiary pays" formula. Transmission owners responded with a 50/50 cost allocation formula, while Massachusetts proposed 100% cost allocation formula. NESCOE rejected the 50/50 formula and, along with CT, MA, ME and VT, proposed instead a 70/30 formula. In October 2013, the Vermont Public Service Department withdrew support for the 70/30 formula. Once Vermont withdrew support, the proposal no longer had sufficient support for formal NESCOE sponsorship. On November 15, 2013, all New England transmission owners except VELCO voted in favor of 70/30, however, the cost estimation model failed to get the requisite support at the ISO-NE participants committee. Additional comments can be filed until December 16.

PROJECT UPDATES

Rutland: Kim Jones provided an update, stating no change has occurred since the report at the September quarterly meeting. The St. Albans geotargeting work will help streamline work needed for Rutland.

St. Albans/East Fairfax: Ms. Jones reported that GMP is preparing testimony ready for Georgia Reliability area. GMP plans to file for a CPG by end of December 2013 and to start construction early 2015 to be in service before the summer of 2015.

Connecticut River Valley: Mr. Présumé reported that the ISO-NE study is ongoing. A lot of regional issues need to be resolved. VELCO is waiting for ISO-NE's final decision.

Northern area: Mr. Présumé reported that the analysis was updated taking into account the addition of the synchronous condenser at Jay. The analysis looked at the load forecast provided by VEC. The area is voltage limited. Two loads affect system performance—Jay Ski Resort & Portland Pipe, an industrial facility that ceased to operate two months ago, but VEC believes the load will come back. More work needs to be done on the load forecast.

PV-20 cable replacement: Mr. Présumé reported the project is early in its development and no additional information available to report.

IBM area: Mr. Présumé reported that a consultant was hired to look at the lines that connect Essex to IBM to determine if the protection is adequate or if improvements are needed. The work is ongoing and there should be a more complete set of results in March 2014.

Colchester: Mr. Litkovitz reported that a portion of the 3309 line was damaged in the spring. GMP is in the process of finalizing easements needed to complete the relocation. Construction is expected to begin in the next several months. The second component to the Colchester area is to extend a new 34.5 kV distribution feeder from Gorge to downtown Winooski.

Hartford/Ascutney: Ms. Jones reported GMP received Section 248 approval for reconductoring. The project is expect to be completed by next year.

ADJOURNMENT

The meeting was adjourned at approximately 2:45 p.m.

NEXT MEETING

The next quarterly Meeting to be held on April 30, 2014, at a location to be determined, 9:30 a.m.-4:00 p.m.

ATTENDANCE

*Indicates voting member
**Indicates alternate

PUBLIC SECTOR

*Michael Kirick, Commercial & Industrial
*Johanna Miller, Environmental

TRANSMISSION UTILITY (VELCO)

*Hantz Présumé, VELCO
Kerrick Johnson, VELCO

DISTRIBUTION UTILITIES PROVIDING TRANSMISSION (GMP, VEC)

*Steve Litkovitz, GMP
**Doug Smith, GMP
Kim Jones, CVPS

LARGE TRANSMISSION-DEPENDENT DISTRIBUTION UTILITIES (BED, WEC)

*Munir Kasti, BED
*Bill Powell, WEC (via phone)

TRANSMISSION DEPENDENT DISTRIBUTION UTILITIES (MUNICIPALS)

*Melissa Bailey, VPPSA
*Stephen Fitzhugh

SUPPLY & DEMAND RESOURCES

*Michael Wickenden, VEIC
Gillian Eaton, VEIC
Carole Hakstian, VEIC
George Twigg, VEIC

NON-VOTING MEMBERS

Walter Poor, DPS
Al St. Peter, DPS

STAFF

Deena Frankel, VELCO
Shana Duval, VELCO