VELCO Operating Committee 11 a.m. FINAL MINUTES

January 17, 2013, 11 a.m. – 3 p.m. VELCO Rutland Office

Participating members: Ellen Burt by phone (Stowe Electric Department), Ken Couture (Green Mountain Power), Tom Dunn (VELCO), Ken Mason by phone (Lyndonville Electric), Kevin Perry (Vermont Electric Cooperative), Bill Powell by phone (Washington Electric Cooperative), Paul Renaud (VELCO), Greg White (Green Mountain Power)

Other participants: Deena Frankel (VELCO), Dave Haas (VELCO), Peter Lind (VELCO), Mike Loucy (VELCO), Dan Nelson (VELCO), Karen O'Neil (VELCO), Allen Stamp (VELCO)

Meeting opening

• Mr. Dunn opened the meeting at approximately 11:15 am.

Safety topic

 Mr. Haas discussed that winter conditions are here and having a stocked emergency kit in your car is a good idea. The group suggested items for an emergency kit including: blankets, flares, high-calorie food, flashlight, hand warmers and cell phone.

Minutes approval

• Mr. Mason moved and Mr. Nolan seconded approval of the minutes of the December 17, 2012, which were approved without dissent.

Standard offer cap exemption docket (7873)

- Ms. Frankel presented an update to the Operating Committee (OC) regarding Public Service Board (PSB) implementation of modifications to Vermont's standard offer program enacted by the 2012 legislature in Act 170. Act 170 increases the cap on the amount of small renewables (2.2 MW or less) the utilities are required to buy from 50 MWs to 127.5 MW over ten years, with the SPEED facilitator continuing to handle contracting In addition, the legislation provides for contracts outside the cap for qualifying resources that provide "sufficient benefit" to the operations and maintenance of the grid. The Board opened the docket to work out the details of implementing the cap exemption, among other provisions.
- Ms. Frankel pointed out the tight time frame for this docket and Docket 7874, which is addressing implementation of a market mechanism for standard offer, because of deadlines in the legislation of March 1, 2013, for developing guidelines and April 1, 2013, for program implementation.
- Ms. Frankel stated that the Central Vermont NTA Study Group results show a declining reliability gap that may be closed by 2016-17. Mr. Dunn asked how are the locational aspects of the renewable projects are accounted for in the analyses. Mr. Nolan stated disagreement exists among the utilities about how to define "sufficient benefit." The Public Service Department (PSD) has proposed a broad definition that goes beyond T&D deferral, and the utilities are not in complete accord about the PSD proposal. In addition, differences exist among the docket parties about how to value societal benefits.

Next meeting

February 21, 2013 11 a.m. – 3 p.m.

GMP, Montpelier

Ms. Frankel pointed out that the year-long collaboration among the utilities in the NTA study group had
produced the underlying analysis that helped enable the utilities to respond nimbly to the questions raised in
the docket.

Telecommunications

- Telecom Operating Subcommittee update
 - No update was provided at this meeting.
- Fiber Project update
 - Mr. Stamp and Mr. Loucy reviewed the Fiber Project update materials provided to the OC.
 - Mr. White asked how VELCO plans to provide access to the third party telecommunication companies. Mr. Nelson responded that in a vast majority of cases the access will be provided outside the substation fence.
 - Mr. Loucy discussed the awareness presentation, "Emergency Fiber Training—A Lineperson's Perspective," He is coordinating a meeting with VEC and GMP to make this presentation.
 - Mr. Loucy discussed the efforts to obtain flow data from smaller distribution utilities.

• Statewide Radio Project (SRP) update

- Mr. Nelson presented the SRP materials provided to the OC.
- Mr. Nelson reported VELCO is planning to cut over to the new radio system in February. Mr. White asked if this has been communicated with GMP. Mr. Nelson responded that he is in touch with GMP technical staff, specifically Mark Dincecco.
- Mr. White mentioned that GMP North is planning to accelerate their cut-over in June. Mr. Nelson will follow up with the appropriate people on this positive development.

Vermont Gas System expansion update

- Mr. Lind presented the Vermont Gas (VGS) materials provided to the OC regarding the Addison Natural Gas Project (ANGP)
- Mr. Dunn said the schedule developed by VGS and outlined in the presentation is very aggressive and likely unrealistic. He asked Mr. Lind for any thoughts on this and Mr. Lind agreed, responding that the PSD will likely provide comments in February on the VGS December CPG filing, which will provide better insight as to potential schedule impacts.
- Mr. Dunn asked if the expanded development proposed by VGS to the International Paper facility in Ticonderoga, NY, was included in the December CPG filing. Mr. Lind explained that VGS had not included this phase of their project in the December submittal and that they are in the process of information gathering and public meetings.
- Mr. Lind mentioned that VGS plans to operate at 600 psi with the ability to increase to 1,420 psi. VGS, as part of their construction practices, will be testing the pipeline for eight hours at 2,600 psi.
- Mr. Couture asked what value VELCO would receive from the project. Mr. Dunn responded that VELCO is supportive of the project, and will be guided in its evaluation by the primary drivers of protecting its assets and rights-of-way (ROW). Mr. Renaud said one benefit to VELCO is that VGS will mow the 50-foot ROW and maintain access roads, which will decrease risks and costs to VELCO.
- Mr. Dunn discussed VELCO's MOU with VGS, under which all VELCO costs will be borne by VGS. VELCO plans to continue with this relationship.

• Mr. Dunn asked if any of the distribution utilities present has any experience with VGS's construction efforts or projects. Mr. Perry and Mr. Couture both responded that they did not have any personal experience with VGS.

Vermont System Operators Committee (VSOC)

- Mr. Haas reviewed the Vermont System Operators Committee (VSOC) materials provided to the OC.
- Next VSOC meeting will be held in February.
- Mr. Dunn asked how well system information is being shared among participants. Mr. Haas noted that system
 information is being shared adequately for real-time operations, however not optimal for longer-planned
 changes. Mr. Dunn asked for suggestions for improvement. Mr. Haas discussed that the Planning groups have
 a better understanding of system changes that are coming, and therefore a better source for keeping all
 apprised for maintaining accurate system models. At the last VSOC meeting several Planners participated, and
 the participants agreed that the System Planners should be members of the VSOC group.
- Mr. Haas discussed the September 2011 outage in Arizona and Southern California that impacted 2.7M customers. A joint NERC and FERC inquiry identified 27 findings and recommendations, one being that the affected transmission entities did not effectively study and monitor the subtransmission system. Mr. Haas pointed out that that ISO-NE expects the New England Load Control Centers, such as VELCO, to perform real-time contingency analysis for ensuring that both the transmission and subtransmission systems are being reliably operated. These expectations are defined in ISO-NE transmission operating guides. Mr. Haas explained that VELCO Operations, in an attempt to get all of the Vermont subtransmission thermal ratings that are part of looped networks in the real-time model, overlooked that the programmed load ratings were too low on some subtransmission lines with tapped loads. Subsequent corrections have been made and VELCO is confident that the Operators will not be burdened by thermal limit alarms.
- Mr. Dunn asked if the use voltage and thermal contingency limits are resulting in violations. Mr. Haas responded that voltage violations are being identified within the contingency model; however they are understood due to known system conditions. If a violation is identified that is not normal and due to expected system conditions, the VELCO operator then notifies the VT distribution utility system operators.
- Mr. Dunn asked the ramifications if VELCO's model is not accurate. Mr. Hass said VELCO has to show that the model data and process is accurate. Mr. White and Mr. Dunn agreed that good communication among the system operators to insure data is correct and current is the key element in monitoring the system.
- Mr. Haas discussed that monitoring the subtransmission system improves bulk transmission reliability as ISO-NE does not have the visibility to the subtransmission level.
- Mr. White asked if VELCO is getting visibility during storm events when a distribution utility leaves a section open. Mr. Haas responded that Vermont is doing a very good job at communicating system operational status. Mr. White requested that GMP be informed if VELCO ever feels their operations may put the bulk transmission system at risk.
- Mr. Haas stated that Ronald Welch, VELCO Operations, is the "designated entity" for 27 units including Georgia Wind and Kingdom Community Wind (KCW), which means that all real-time operation communication with ISO-NE goes through VELCO.
- Mr. Haas mentioned that the GMP-Colchester control center is the point of contact for the 34.5kV system outages and coordinating efforts in the Stowe–Morrisville area, but no document or agreement is in place that defines GMP's role. Mr. Couture agreed to research the appropriate document to record an agreement.
- Mr. Mason asked who and when he should notify VELCO of operational changes to Lyndonville's system. He asked, for example, if Lyndonville is planning to open a line to minimize outages due to a predicted high-wind event, when should he notify VELCO? Mr. Haas said the expectation is they will notify VELCO twice; on the day or days before the line opening is planned and on the day of, just before the action is performed.

• Mr. Perry explained to the OC the general operating theories of the Newport quick switch.

Circuit restoration philosophies

• Moved to next month's OC meeting.

Other business

- Mr. Stamp discussed the proposal made by GMP South to have the Lit Fiber project fund the head-end equipment which supports the fiber electronics deployed in the GMP South's system. The concept would be to flow the costs through the Network Access Agreement. The OC accepted the proposal and Mr. Stamp agreed to move forward with developing a cost and project rationale to take before the VELCO Challenge Board.
- Mr. Nelson discussed the need to integrate distribution utility traffic onto the network. This will be considered a change in scope and the costs will flow to the distribution utility supported.
- Mr. White asked that the costs be identified quickly in order for GMP to budget the costs within the 2014 budget cycle.
- Mr. Couture asked if any of the costs of Remote Network Management Services (RNMS) would be passed onto a specific distribution utility. Mr. Nelson responded that the RNMS costs will flow through the Vermont Transmission Agreement (VTA) like other plant costs.
- Mr. Dunn discussed the need for the planned K41 upgrades. Specifically to minimize outages VELCO sent out a Request for Quotes (RFQ) to complete the upgrades as "hot work," i.e., without taking the lines out of service. Only one contractor responded, providing a \$1M increase to perform the scope under hot work conditions.
- Mr. Nolan said the potential revenue loss for the outage would be significant and that the economics indicate the owner of Sheffield may be willing to pay the increased costs to complete the work under energized conditions. Mr. White supported Mr. Nolan's view. Mr. Powell said that Washington Electric Cooperative also has financial interest in keeping the line in service. He further explained that WEC was informed by the owners of the generator of the planned outage. Mr. Haas mentioned that the notification process is not well defined for VELCO to be able to notify multiple parties, however the project was put into the long-term project list for ISO-NE. Mr. White would like to investigate if a more formal protocol could be developed to allow more efficient information sharing while complying with CEII and other requirements.
- Ms. O'Neill explained that information sharing about upcoming outages is made complex by both the FERC standards of conduct and the ISO information policy, and the information policy does not provide very clear guidance. She is in the process of seeking additional guidance from the ISO. Under the standards of conduct VELCO can't give undue preference to one entity over another. The ISO information protocols state VELCO can have discussions about curtailments with a generator if it involves only that generator, but if the situation impacts multiple generators, VELCO yet understand clearly how to proceed and is seeking ISO-NE's guidance. The only bright-line guidance is that VELCO can't share ISO operational information with anyone other than operations personnel for operating purposes and the impacted generator. Mr. Nolan pointed out that ISO notified the impacted generators who in turn notified Burlington Electric Department's (BED) marketing department, but VELCO can't discuss the outage with BED. Ms. O'Neill responded that the information protocols established by ISO would need to be modified to allow this conversation to occur and we have challenges to even know who all the impacted parties are to ensure we're not preferentially treating anyone and creating a potential violation for VELCO. Ms. O'Neill also mentioned she has reviewed ISO language whereby the transmission company does not have any obligation to change its outage schedule at the request of a generator.
- Mr. Dunn asked what steps will be taken next. Ms. O'Neill responded that VELCO is seeking ISO guidance and will try to bring greater clarity to these issues for itself and OC members.

- Mr. White asked what obligation VELCO has in representing its owners' interests. Mr. Haas responded that VELCO VELCO's role is to comply with transmission operator requirements in this situation.
- Mr. Couture asked if any summary from Hurricane Sandy has been developed regarding outage and
 restoration efforts in Vermont. Mr. Haas responded VELCO hasn't received information from all of the
 Vermont distribution utilities, but will follow up for an ISO reporting request. Mr. Couture mentioned GMP
 received a request from John Mosher of NPCC for a summary report. Mr. Haas took the assignment to set up a
 meeting to discuss the reporting.

Proposed agenda topics

- VELCO update on substation condition assessment project.
- Follow-up on line losses between Lyndonville and St. Johnsbury.
- Update on the NPCC reporting regarding Hurricane Sandy.
- Circuit restoration philosophies.

Adjournment

• Mr. Couture moved and Mr. Perry seconded adjournment, which was agreed to without objection. The meeting adjourned at approximately 2:40 pm.