

VELCO Operating Committee
MINUTES FINAL

July 19, 2012, 11 a.m. – 3 p.m.
Green Mountain Power, Montpelier Office

Participating members: Ellen Burt (Stowe Electric Department), Ken Couture (Green Mountain Power), Tom Dunn (VELCO), Ken Mason (Lyndonville Electric Department), David Mullet (VPPSA), Ken Nolan (Burlington Electric Department), Paul Renaud (VELCO) and Jeff Wright (VT Electric Cooperative).

Other participants: Deena Frankel (VELCO), Mike Loucy (VELCO), Dan Nelson (VELCO), Thad Omand (VELCO), Hantz Pr sum  (VELCO), Doug Smith (Green Mountain Power), Allen Stamp (VELCO), Rick Twigg (VELCO).

Next meeting

August 16, 2012

11 a.m. – 3 p.m.

At GMP, Montpelier

Minutes approval

- Approval of the minutes of the June 20 meeting was moved by Mr. Mason, seconded by Mr. Wright and approved without dissent.

Non-transmission alternatives (NTA) study update

- Mr. Smith presented an update on the NTA study indicating that the study is now focused on the central Vermont project (Coolidge to W. Rutland) with the northwest project placed on back burner due to its timing, which is now well out in the future.
- Mr. Dunn discussed the importance of the load forecasts and that the latest forecast, which includes effects of the SPEED program, suggests overall load for VELCO will likely decrease, making deferral of a Coolidge to West Rutland project likely. Mr. Pr sum  will provide a more detailed presentation on the latest load forecast at the August Operating Committee meeting.
- Mr. Smith highlighted that the urgency of this effort might not be the same as it was when the effort started. The need for the project, and thus next steps, depends on planning uncertainties which the group is working to understand. It will be very important to work with ISO-NE to reach agreement on the size and timing of needs and whether or not a particular NTA meets these needs.
- Mr. Smith also discussed the importance of resolving the load forecast because of its significant effect on the goals and costs of the NTA study. Mr. Pr sum  informed the group that the differences of perspective between ISO-NE's and VELCO's load forecasts will be discussed at the annual ISO-NE load forecasting meeting on July 27, which will include ITRON, and other stakeholders.
- Mr. Smith stressed the importance of and appreciation for the collaboration of VELCO with the DUs in this DU driven process.
- Mr. Smith described the effectiveness of NTAs on each segment of transmission needs based on location. He also described the ranking of potential NTAs based on preliminary data and screening that the group has done to date. He stressed that the results still need review and buy-in from all the stakeholders involved.
- Mr. Couture questioned why farm methane has a large discrepancy between ratepayer impacts and cost of reliability. Mr. Smith responded that the difference is the result of market structure effects such as sales of renewable energy certificates (RECs).

- Mr. Nolan pointed out the perception that the value of the SPEED program is being downplayed by VELCO.
- The NTA group will get to a point of identifying solutions based on good study-grade numbers but will stop short of creating a “bankable” or contract quality level of accuracy. He also indicated that if about 50 MW of demand resources could be added in the ideal location, it would defer the Coolidge-Cold River project until 2022, assuming each section of line between Coolidge and West Rutland could be upgraded separately.
- Mr. Smith described some preliminary results of the potential NTA resources and that some of the needs might be met by resources that will/may be developed for other reasons including GMP efficiency fund, SPEED renewable, Rutland City Solar, other local generation and utility rate programs.
- Mr. Dunn questioned whether DR means ISO DR programs or something else. Messrs. Smith and Nolan described that these could be separate programs or a program that augments the ISO program.
- Mr. Smith concluded his presentation by describing some lessons learned including the disconnect between ISO and Docket 7081 timelines, applicability or desirability of a formal market test as presumptively required by the Docket 7081 MOU, and that some of the precedents and tests for DR and energy efficiency may not directly translate to NTA Studies.
- Mr. Smith questioned the benefit of pursuing NTAs when the cost allocation of market resources and transmission are different (i.e., societal value versus localized costs). The committee discussed the importance of this test case on solving this problem with the ISO. This will provide a real example to the region to face the issue.
- The overall schedule will be refined but the goal will still be to have a well-defined plan by the end of the year.

Fiber Project Update:

- Mr. Loucy updated the group on the status of the fiber backbone and fiber electronics projects.
- The fiber backbone projects are about 99% complete; Stowe is designed although completion will be deferred into 2013.
- The projected total continues to be 850 miles with 700 miles complete to date. The final total number of miles is dependent on ongoing negotiations with the TELCOs.
- Mr. Loucy described the issues with placing communication facilities in the electric space on joint use facilities and as a result VELCO communications facilities will not be placed in the electric space.
- All fiber is scheduled to be complete by end of 2012 (except some specific requested deferrals) with splicing and testing following in Q1 of 2013.
- All carrier Ethernet equipment has been received and DWDM equipment will ship in July. All DWDM and CES readiness statements of work are complete.

Statewide Radio Project

- Mr. Nelson updated the group on the status of the radio project.
- The network coverage is generally meeting or exceeding expectations.
- VELCO AVL mapping tool is operational and available for external users to view.
- Hardwick is currently testing the system.
- CPGs have been received for 31 sites and the Wells condemnation has received approval. Mr. Dunn pointed out that the condemnation process went faster because of the agreement VELCO reached with

the landowner. Under that agreement, only the property value could be challenged by the landowners, not the need.

- The system will be fully operational and ready for traffic in October 2012 and user cutover could begin in Q4 of 2012.

Telecom Subcommittee update

- Mr. Nelson reported that VELCO has been working directly with owners and is also working through the Radio Users for specific utility network details. Mr. Mason questioned how DHS is operating and communicating with state agencies in Vermont. Mr. Nelson responded that VELCO is working with Vermont Communications (VCOMM) that will capture any DHS needs.

Cyber Security eEnergy Vermont Smart Grid/Fiber Roll-Out

- Mr. Twigg described eEnergy Vermont, which is being funded by the DOE and the VT utilities and is intended to significantly improve the reliability and intelligence of the VT grid as well as foster better coordination and management both within the VT system and regionally.
- Mr. Dunn asked who is responsible for the cyber security plan. Mr. Nolan responded that VELCO has an umbrella plan and plays an auditing role of individual DU plans. Mr. Twigg agreed and described the importance of building a cyber security plan for overall business needs, not just for CIP standards. Currently telecom facilities are not defined as NERC CIP critical assets; however, all components are designed, implemented, and maintained in accordance with the CIP standards.
- Mr. Dunn asked if the equipment the DUs put in VELCO standards triggers CIP standards for their facilities. Mr. Nelson responded that the CIP standards apply only when the NERC standards go down to the voltage levels at which the DU operate. Mr. Dunn noted that the CIP standards are very important to VELCO but that the OC has never had a presentation on CIP and agreed to do a future presentation at the OC. Mr. Haas mentioned that VELCO will be meeting with ISO-NE and VT entities to help them meet standards associated with new black start facilities.
- The committee discussed the vulnerabilities associated with cyber attacks.
- Mr. Twigg described security principles being applied, which include a holistic approach using “defense in depth” and securing the weakest link. He emphasized that detection and effective response are keys in limiting damage caused by an attack.

St. Albans 34.5 kV Bus Outage

- Mr. Haas described the St. Albans 34.5 kV bus outage that occurred on June 20. Following a catastrophic station service transformer failure and fire, there was a 34.5 kV bus outage. The area voltage dropped by 19.4%. As a result of loss of station service, VELCO transformers ran without forced cooling for several hours. In addition the East Fairfax transformer normal rating was exceeded by 113 % and the B19 circuit rating was exceeded by 144%.
- Mr. Wright asked why the fuses didn't blow before the bus differential went; Mr. Haas responded that the fuses did blow; however, the differential scheme was already committed.
- Mr. Dunn asked if the results would have been the same if the station was configured as a ring bus. Mr. Haas responded no.

- Mr. Haas described the sequence of events and actions to restore voltages including load shed at North Elm, mobile cap bank energization, Welden Street cap bank energization, and St. Albans bus restoration.
- The event reaffirms the need for the area system reinforcement already in the VELCO plans, including the Georgia 34.5 kV injection identified in the LRTP, and the VELCO St. Albans substation upgrade plans currently under development.
- Mr. Wright asked whether VELCO has looked at putting in redundant station services for stations that rely on forced cooling. Mr. Dunn responded that new stations have backup generation and redundant station services, but VELCO has not gone back on a global basis but will consider this.

Merger Effects on Operating Committee

- Mr. Dunn summarized the letter included in the OC agenda package on the merger affects. He explained that under current bylaws, any company that has a 4% share can participate in the committee and asked if committee members are aware if there are any smaller utilities that want to participate. Stowe voiced their desire to remain on the committee. Mr. Nolan noted that that under the MOU, the utilities agreed to advocate to the VELCO board that any utility could participate on the committee. Mr. Dunn stressed that the VELCO board would need to approve any change to the committee participation.

Safety Summit

- Mr. Renaud described the proposed modifications to the planned safety summit based on some participant's objections to the original agenda. Mr. Nolan described BED's reservations with the original agenda proposed.
- The meeting will not include outside speakers or participation from regulatory agencies and will focus on sharing lessons learned and identifying priorities to work on going forward.
- Mr. Dunn noted the parallel to the North American Transmission Forum for sharing information and best practices across the nation.
- Mr. Mason noted that commonality on procedures, rules and practices is an important component to improving safety.

Vermont Gas

- Mr. Dunn reported that VELCO has entered into an MOU with VT Gas as part of VT Gas's expansion. Under the MOU, VT Gas will pay for data VELCO has previously collected and VELCO will have approval authority for design of facilities within VELCO rights-of-way.

September OC Meeting:

- The September OC meeting will be held on Monday September 17 at VELCO office in Rutland. This will be a joint CFO/OC meeting.

August/Future meeting agenda items

- Effects of net metering and Standard Offer projects on Vermont load forecasts
- Long-Range Transmission Plan subtransmission upgrades
- NERC CIP
- Jarrod Harper presentation on Infonet
- Regular/periodic updates:
 - Billing and power accounting report (including change of control process)
 - NTA study update
 - VT Control Center Operating Forum (quarterly)

The meeting was adjourned by Mr. Dunn at approximately 3 p.m.