VELCO Operating Committee 11 a.m. FINAL MINUTES

November 15, 2012, 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), Kevin Perry (Vermont Electric Cooperative), Bill Powell by phone (Washington Electric Cooperative), Paul Renaud (VELCO), and Jeff Wright (Vermont Electric Cooperative)

Other participants:, Brian Connaughton (VELCO), Deena Frankel (VELCO), Hantz Présumé (VELCO), Kerrick Johnson (VELCO), Mike Loucy (VELCO), Dan Nelson (VELCO), Doug Smith (Green Mountain Power), Allen Stamp (VELCO)

Meeting opening

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

Safety topic

- Mr. Dunn discussed the need to recognize that downed power lines should be treated as if they are energized.
- Mr. Wright mentioned to be mindful of wildlife on the roads.

Minutes approval

• Mr. Wright moved and Mr. Couture seconded approval of the minutes of the October 18, 2012, which were approved without dissent.

Telecommunications

• Telecom Subcommittee update

 Mr. Nelson stated that VELCO Telecommunications was able to test the Emergency Response Plan during the most recent storm, Sandy. As a result of a tree contact with a Green Mountain Power (GMP) South line, VELCO experienced one fiber outage between Newfane and Manchester. During the outage GMP South lost visibility to the Newfane substation via this path, but the coordination efforts between GMP South and VELCO allowed an efficient return of service.

• Fiber Project update

- Mr. Stamp presented the Fiber Project update materials provided to the Operating Committee (OC).
- Mr. Loucy said we have received a high-level fiber deployment schedule from Telco #2 and provide the information to impacted Vermont utilities.
- Mr. Loucy discussed that VELCO continues to work with the remaining Vermont utilities to help them better understand the lit fiber deployment and cost structure.
- Mr. Loucy discussed the "Emergency Fiber Training A Lineperson's Perspective" awareness
 presentation and asked for contacts from interested Vermont utilities for coordination purposes.
- Mr. Dunn asked for an update regarding fiber exchange discussions with Waitsfield Telecommunications Company. Mr. Stamp responded that the discussions have advanced and we are evaluating various business models.

Next meeting

December 20, 2012 11 a.m. – 3 p.m.

GMP, Montpelier

- Mr. Couture asked if a Vermont utility wants to build a new substation would VELCO own the fiber that would provide connectivity. Mr. Stamp responded that this scenario has not been discussed to date, but VELCO will take this under review. Mr. Nelson discussed that VELCO's budgeting rules do not currently cover this scenario. Mr. Dunn mentioned that the rules would follow the normal process by which a Vermont utility would request VELCO to provide connectivity and VELCO would complete an evaluation.
- Mr. Wright asked if VELCO thought the likelihood exists that sometime in the future VELCO would require the Vermont utilities to provide additional data and, if so, how might that occur. Mr. Dunn responded that future requirements and how they would be managed are unclear, but the current fiber network will provide the necessary data to improve reliability.

• Statewide Radio Project (SRP) update

- Mr. Nelson presented the SRP materials provided to the OC. In particular Mr. Nelson stated that the Wells site is commissioned and VELCO will be relocating the temporary cellular site equipment from the Wells site to the Randolph site to provide coverage in this area.
- Mr. Nelson mentioned GMP South is reporting that they have approximately 600 mobile devices to program in order to utilize the system by the end of the year. Mr. Dunn suggested to Mr. Couture to have an out of OC discussion of which Mr. Couture concurred.
- Mr. Couture asked about an update on the Waterbury site. Mr. Nelson reported that the area is still under evaluation and we're working through leasing options with the primary candidate site. In the interim VELCO is working through several system optimization tasks to improve coverage. Mr. Couture asked if the challenge with the candidate site is an easement issue. Mr. Nelson responded that the site covers two landowners and VELCO's Right of Way department is investigating strategies.
- Mr. Dunn asked how Vermont Electric Cooperative (VEC) is progressing with their radios on the SRP.
 Mr. Wright reported that they are nearly 100% rolled out and the feedback to date has been very positive. The clarity is an improvement over the existing network and they anticipate going live over the next couple of weeks.
- Mr. Wright mentioned they'll be going through radio training for VEC personnel over the next few weeks covering the new radios.
- Mr. Wright asked if the map provided in the presentation had changed. Mr. Nelson reported the white areas show >100dB signal strength and this map has been updated to show predicted coverage.

Incident Reporting and Analysis

- Mr. Connaughton presented the Incident Reporting and Analysis materials provided to the OC.
- Mr. Perry asked if VELCO has a database in which personnel can query the information. Mr. Connaughton responded affirmatively, that once the data is entered into the system it can be queried. This is a key function to better evaluate an event to determine whether a trend exists. Mr. Connaughton also discussed that further development of the database will be performed in an effort to more effectively leverage the data gathered as part of incident reviews.
- Mr. Couture asked if the system tracks compliance. Mr. Connaughton responded that the system is designed to cover all types of events: safety, compliance, environmental, etc.
- Mr. Renaud added that this is a minimum-level standard and a manager can always perform a more detailed evaluation.

Non-Transmission Alternatives (NTA) Study Group

- Mr. Smith presented the Non-Transmission Alternatives (NTA) Study Group materials provided to the OC.
- Mr. Smith reported that the Study Group is a collaborative effort among all Vermont utilities led by GMP. The group has been supported by extensive analysis and participation by VELCO.
- Mr. Dunn asked if the reason the NTA study process works in Vermont is because of the vertical integration. Mr. Smith responded that similar efforts could work in other states, but barriers to sharing data are detrimental. With Vermont's vertical integration and having a regulatory body that expects cooperation, the Study Group's efforts have been very productive.
- Mr. Wright asked if the Coolidge transformer is the original, 1970s vintage, which was confirmed by Mr. Dunn.
- Mr. Couture asked if the 20 MW gap on K32 is anything to worry about. Mr. Présumé responded that the
 gap indicates failure of NERC performance requirements, but that the study group's work demonstrates
 how Vermont is working towards a solution for a deficiency using typical project timelines (planning,
 permitting, construction, etc.). Mr. Couture mentioned that GMP has three to four FTE managing
 standard offer projects, indicating the significant impact of this program in Vermont.
- Mr. Johnson asked if the study group and ISO-NE are aligned in their assumptions regarding solar power. Mr. Présumé responded that the Capacity Network Resource (CNR) value is still under development. In the mean time, the NTA study group is assuming 50%.
- Mr. Renaud asked the Study Group's sense regarding the conservatism of the effective capacity values
 used in the calculations. Mr. Smith responded that the geographical criterion has a relatively high
 confidence level due to load flow analysis performed across the 16 load zones. The shape criterion is less
 definitive and some believe the 50% value is marginally conservative. Mr. Présumé mentioned that
 representatives from ISO believe the 50% is too aggressive hence the need for continued discussion.
- Mr. Dunn asked if the capacity resource figures accounted for the potential benefits of smart grid, DR, etc. Mr. Smith responded that the base capacity resource assumptions did not take these into account, but they could serve as a measure of robustness of the NTA plan at this time.
- Mr. Johnson asked if this information has been shared with the Public Service Board (PSB). Mr. Smith
 mentioned that the PSB has received very little information regarding the Study Group's progress as the
 results are only now being understood and the group has not yet developed "bankable" solutions. The
 results do indicate that Vermont will need to look for DR managed in-state versus DR procured through
 the ISO-NE FCA.
- Mr. Smith stated that the next step is to reach consensus among the Vermont utilities, VELCO and the regulators. This will then lead to the strategy moving forward.

Tropical Storm Sandy response and lessons learned

- Mr. Dunn discussed the Tropical Storm Sandy response and lessons learned as they relate to VELCO's Emergency Response Plan (ERP). The storm experience posed the key question of how to improve communication between Vermont utilities and VELCO. He asked the Operating Committee (OC) to consider this question for future coordination efforts.
- Mr. Wright said the weather forecasting work that Roger Hill has completed for the Vermont utilities has been very accurate and the relationship should continue to be fostered.

Other business

- 2013 OC meeting dates
 - Mr. Wright moved and Mr. Couture seconded the approval of the proposed 2013 OC meeting dates, which were agreed to without objection.
- Mr. Couture requested an update on the Highgate Converter project which was provided by Mr. Sebastiao.
- Mr. Couture asked about a reported issue of a line tripping out. Mr. Sebastiao responded that the programming is designed to provide protection, but the signal did not make it through the system. This caused an oscillating condition which triggered the trip. VELCO has sent several TCU's to ABB for evaluation of this condition. ABB will try to determine whether the specified parameters are correct, whether fiber connections are problematic, etc. The main emphasis is to make sure no significant manufacturing issues are present.

Next OC meeting

• The next OC meeting will be held on Thursday, December 20, 11 a.m. to 3 p.m. at GMP's Montpelier office.

Proposed agenda topics

- Substation security
- Metering follow-up issues
- GMP safety presentation

Adjournment

• Mr. Perry moved and Mr. Couture seconded adjournment, which was agreed to without objection. The meeting adjourned at approximately 2:50 pm.