

**VELCO Operating Committee (OC)
Final MINUTES**

June 20, 2013, 11 a.m. – 3 p.m.
GMP Montpelier Office

Participating members: Ellen Burt (Stowe Electric Department), Ken Couture (Green Mountain Power), Tom Dunn (VELCO), Ken Mason by phone (Vermont Public Power Supply Authority), Ken Nolan (Burlington Electric Department), Bill Powell by phone (Washington Electric Cooperative), Paul Renaud (VELCO), Jeff Wright (Vermont Electric Cooperative), Greg White (Green Mountain Power).

Other participants: Chris Dutton (VELCO), Mike Loucy (VELCO), Dan Nelson by phone (VELCO), Thad Omand (VELCO), Allen Stamp by phone (VELCO).

Next meeting

July 18, 2013
11 a.m. – 3 p.m.

GMP Montpelier

Meeting opening

- Mr. Dunn opened the Operating Committee (OC) meeting at approximately 11:03 am.

Safety topic

- Mr. Dunn reminded the group that teenage drivers are easily distracted and they need constant reminders of the dangers associated with driving a vehicle. Focusing on driving is paramount to safety and turning off phones and other devices that can be distracting is a good practice for everyone. Mr. White noted it is important to model the appropriate behavior when driving with children. Mr. Wright noted there were two recent fatalities in Lamoille County where young drivers were not wearing seatbelts, which are the strongest defense against injury.

Minutes approval

- Mr. Couture moved and Ms. Burt seconded approval of the minutes of May 16, 2013, which were approved without dissent.

Telecommunications

- **Telecommunications Operating Committee**
 - Mr. Nelson reported that the Telecommunications Operating Committee (TOC) will meet monthly, but given schedule conflicts, no meeting was held in May.
 - Mr. Nelson explained that VELCO is working on a draft telecommunications operating agreement that will outline a proposed process for future access to the network by distribution utilities (DU). This draft will be discussed at the next TOC meeting and the recommendations brought to the OC for further vetting.
- **Fiber Project update**
 - Mr. Loucy and Mr. Stamp reviewed the fiber project update materials provided to the OC.
 - Mr. Loucy explained that make-ready proposals have been submitted by GMP and Stowe and VELCO expects to receive VEC's proposed costs over the next couple of weeks. Both GMP's and Stowe's make-ready proposals have been reviewed and accepted by VELCO. Once the make-ready is complete, VELCO will release Eustis Cable to complete the fiber installation. VELCO

successfully negotiated favorable rates with Eustis for this work. Additionally, VELCO is reviewing its inventory to provide the make-ready and fiber materials.

- Mr. Loucy said Ludlow Electric Department has recently decided to participate in the fiber and lit fiber projects and that Enosburg Falls Electric Department and Johnson Water and Light (Johnson) are finalizing their decisions on whether to participate.
 - In response to a question from Mr. Wright, Mr. Loucy confirmed that fiber has been installed to the Enosburg substation.
 - In response to a question from Mr. Dunn, Mr. Loucy confirmed that Johnson is very interested in participating in the fiber project and understands the potential benefits of having communications established at their substation.
 - Mr. Wright noted that the VTel fiber includes approximately 10 structures from the VEC office in Johnson.
 - In answer to an inquiry from Mr. White, Mr. Stamp stated that he is preparing and will submit applications for the distribution run up Route 4.
 - Mr. Couture discussed a recent event at GMP's Colchester data center whereby a circuit was tripped leading to multiple server alarms. GMP is performing a root-cause analysis internally to identify potential process improvements. VELCO's understanding of the event, Mr. Nelson reported, is that while powering up of some electronic gear in the GMP data center, an existing rack mounted power outlet was utilized as directed by a GMP employee and it was unknown that the outlet was 220V. To extend this power into an adjacent bay, another power strip, which had surge suppression, was used and when the power was switched on the power strip attempted to suppress the 220V. This caused the circuit breaker that fed server(s) in the data center to trip off. No injuries occurred and no equipment was damaged, but the event identified a weakness in processes. Mr. Nelson offered VELCO's assistance in the incident review process. Mr. Couture responded that he'll take this offer back to his team at GMP for consideration.
 - Mr. Nelson discussed VELCO's co-location of electronic gear in various DU facilities across the state. The TOC is developing an operating agreement focused on reliability.
 - Mr. Couture noted that GMP has identified four or five switches that it would like to include in the current year's budget and asked VELCO to propose a process to consider such requests. Mr. Nelson responded that VELCO is developing a draft process for all future requests to access VELCO's telecommunications networks, which will be reviewed with the TOC and OC. Mr. Couture noted that it is important to GMP to resolve this issue before the fiscal year end October 1. Mr. Nelson acknowledged the urgency and agreed to take this back to the team.
- **Statewide Radio Project (SRP) update**
 - Mr. Nelson presented the SRP materials provided to the OC.
 - Mr. Nelson explained that VELCO, in conjunction with GMP, has tested a prototype combiner to determine if the combiner eliminates feedback on system and enhances the customer experience. The combiner improved both the quality of the call and coverage from the site. VELCO subsequently ordered combiners for every site with an approximate delivery date of four to six weeks. Mr. Nelson explained that VELCO is researching ways to accelerate the installation process through the use of contractors.
 - Ms. Burt inquired if VELCO is still planning to use any Stowe substations to improve coverage in the Stowe area. Mr. Nelson stated that the Brush Hill site is currently being reviewed and likely offers a significant improvement in coverage over the Lodge and Houston substations. Ms. Burt

asked if VELCO had investigated locating antennas on Mt. Mansfield. Mr. Nelson responded that the top of Mt. Mansfield provided too much coverage and actually would cause system performance as far away as PICO Mountain in southern Vermont. Brush Hill provides the best coverage in the valley areas.

- Mr. Nelson said the Tait radios purchased by some of the DUs are not performing as intended. VELCO has been working with the DUs to research the issues. VELCO's subcontractor, Gould Electronics has developed an improvement. To test the proposed resolution, VELCO will pilot several radios and update their configuration schemes to see if the customer experience improves. If the updated configurations are beneficial, VELCO will recommend that all Tait radios get the updates. Mr. Dunn inquired how long the updates would take. Mr. Nelson stated a single update takes about five minutes however, with several hundred radios deployed, significant time will be required to complete all updates. Mr. Dunn asked if VELCO or any of the OC members had provided feedback on the ongoing radio system training program. Mr. Nelson said the informal feedback is that the training has been helpful. Mr. Nelson stated that approximately eight to ten additional training sessions are needed, but as the user group grows or new features become available, VELCO will continue to support this effort.
- Mr. Nelson discussed analysis of site changes for improvements to optimize performance and area coverage now that the system is deployed. Olga Mountain and Lunenburg sites will be a particular focus as well as pole mounted sites near fiber runs in weak areas. Mr. White asked how the tuning exercise this morning went looking at other possible sites. Mr. Nelson said the complexity of site selection is hard to grasp and will take several meetings to work through. Transitioning sites is very difficult as each move creates new weak spots.

Strategic Plan

- Mr. Dunn presented the materials provided to the OC.
- Mr. Dunn said VELCO has adopted a two-year budget cycle with an increased focus on soliciting feedback from numerous stakeholders. This approach has provided a clearer assessment of current landscape facing stakeholders, which has led to the creation of a plan that is sensitive to their challenges and wishes. Another change in VELCO's approach is to simplify the strategic plan to increase "pull" energy versus being directive in nature. Mr. Dunn described the wide distribution within VELCO of such outside information as the Dr. Faruqui and Netflix presentations, and their use to inform the planning process in combination with the stakeholder feedback.
- Mr. Dunn said industry is changing as a result of several factors including: distributed generation (DG), SmartGrid and nationwide flat or declining loads. All of these factors can have a detrimental impact on transmission cost recovery.
- Mr. White noted forecasts show 30% to 40% of generation is projected to be local and if storage devices are developed these factors will be a challenge in covering all transmission and distribution costs.
- Mr. Nolan commented that a recent meeting was hosted by Senator Sanders, Representative Welch and Governor Shumlin on how to promote more DG within the state. BED has 1MW of installed generation and 8MW of proposed generation, creating new challenges to system planning efforts. Mr. Wright noted that it is important to VEC and other DUs to understand how the increase in DG on Vermont system will affect transmission load share as this will likely lead to changing costs, both positively and negatively.
- Mr. Dunn reported that VELCO has contracted with John Floyd and Associates to conduct an initial review of VELCO operations to identify any opportunities to reduce VELCO's transmission costs.

Power Accounting Update

- Mr. Omand presented the materials provided to the OC.
- Mr. Omand explained that ISO-NE had updated its hourly loss report as a result of the analysis VELCO performed. ISO-NE provided a post-update report, which we have analyzed and have a difference to review. The analysis shows we recovered approximately 60% of the \$1.5 million increase that occurred when correcting the Highgate loss metering issue.
- Mr. Omand said ISO-NE announced it will move to sub-hourly settlement in the future and will bring a further discussion to the Metering Working Group in-person meeting in September.
- Mr. Omand reported that VELCO met with GMP and VEC during the past month to discuss interconnection points that provide consistent metering challenges. VEC is assessing how to provide VELCO with MV-90 direct interrogation of the R65 in Sheldon Springs until VEC can implement its own MV-90. Mr. Couture and Phil Mandalere from GMP met with VELCO and discussed steps to move toward revenue-quality metering and problem points. VELCO and GMP are working on a common list of the meters that impact the state. This will allow the GMP meter team to know when to communicate with VELCO and when to increase the priority of resolving a trouble meter.

Other business

- Mr. Dunn discussed that the VELCO 2014/15 budget development is underway and that Patty Smith sent a request to OC members to provide any updates on planned work that may have an impact on either VELCO's system or its resources. Mr. White asked how to incorporate requests for improvements associated with the radio project. Mr. Dunn responded that the DUs should provide specifics as to their expectations or desires and this will initiate discussion.
- Mr. Renaud provided an update on the Highgate Joint Owners (HJO) billing status. An analysis for 2013 and 2014 was sent to the CFOs for each DU.
- Mr. Dunn shared a document provided by the North American Transmission Forum (NATF), which highlights current issues in the industry. Recently a substation outside San Jose was attacked. The substation supports 1.8 million customers. At 1 am individuals entered two separate manholes and cut the optical fibers, blinding six substations. Someone then fired 120 rounds into the substation to destroy the transformers. Repairs took 27 days at a cost of \$25 million plus \$12 million in replacement power. Homeland security, FBI, and other agencies are taking action to reduce the risk.
- Mr. Dunn also discussed repeated lightning strikes at the LaSalle nuclear plant on an older yard where the ground grid was not working properly causing ten 345 breakers to trip and causing two 1000 MW nuclear plants to trip off line.
- Mr. Dunn also highlighted the report of a cyber-attack on Aramco which destroyed 30,000 computers and shut down the oil field. The computer screens showed a burning Saudi flag while the attack occurred. The estimated total cost was \$500 million.
- Mr. Dunn asked the OC members if the meeting schedule should continue monthly or move to bi-monthly. Mr. Dunn expressed his opinion that the level of on-going work and policy discussions supports continuing a monthly schedule. Mr. Couture, Ms. Burt, and Mr. Powell agreed that monthly is still the correct timing.

Proposed agenda topics

- System voltage control.

Adjournment

- Mr. Couture moved and Ms. Burt seconded adjournment, which was agreed to without objection at approximately 1:45 pm.