

VELCO Operating Committee FINAL MINUTES

May 21, 2015, 11 a.m. – 3 p.m.
GMP Office, Montpelier

Participating members: Ken Couture (Green Mountain Power), Frank Etori (VELCO, acting chair), Ken Mason (Vermont Public Power Supply Authority/Lyndonville Electric), Bill Powell (Washington Electric Cooperative), Jeff Wright (Vermont Electric Cooperative).

Other VELCO participants: Brian Connaughton, Tom Dunn, Deena Frankel, Kerrick Johnson, Phil Kearney, Peter Lind, Scott Massie, Dan Nelson, and Jose Sebastiao.

With consensus of the group, the agenda order was modified to cover items IX (STATCOM) and X (Penta) after item III (safety incident) to accommodate travel constraints.

Next Meeting

June 18, 2015

11 a.m. to 3 p.m.

GMP Montpelier

Safety topic

Tom Dunn offered the safety topic of the importance of driving with care in work zones. He pointed out the high level of speed enforcement recently observed, as well as the dangers posed by the current construction on I-89. The group offered personal experiences with the I-89 lane change difficulties at Exit 10, including traffic barrels hit by previous motorists blocking the lanes.

Review of minutes of April 16 meeting

The minutes need a correction to change “Ken Powell” to “Bill Powell.” Ken Couture moved, and Mr. Powell seconded, approval of the corrected minutes, which were approved without objection.

Safety incident

Mr. Massie presented the material in the slides including in the meeting package concerning the safety incident that recently occurred at structure 193 on VELCO’s K24 line.

Mr. Couture asked for an explanation of Map Guide, referenced by Mr. Massie. VELCO explained and demonstrated VELCO’s Map Guide system, which provides a detailed view of the grid, and tracks where crews are working on VELCO assets. He also explained how crew information is updated.

Mr. Couture asked whether other utilities could use the Map Guide system. Mr. Dunn offered for VELCO to do a more in-depth demonstration at the next Operating Committee meeting. VELCO reported that a conversion is planned to an ESRI-based application that works better with mobile devices.

Mr. Massie reported on the lineman’s condition, the nature of his injuries, and the expected degree and timing of his recovery.

Mr. Wright asked if this incident reflected practices that an internal crew would have used to perform this job. Mr. Massie replied that an internal crew would have completed the work differently although the structure disassembly method was acceptable. Mr. Dunn asked if VELCO had conveyed any concerns about work practices to the contractor prior to the incident. Mr. Massie said no, that the concerns about managing the debris field during the work had not been conveyed previously. After the incident review, the contractor agreed they should have encouraged “housekeeping” practices themselves. Mr. Couture asked if rushing was a contributing factor. Mr. Massie responded that the primary factor was the debris field in the work area as the falling section of the pole caused a piece of debris to become airborne, striking a worker; but the review team did think rushing was a contributing factor. Mr. Fiske pointed out another contributing factor, that no senior crew member was present as the crew was made up of peers. Mr. Fiske stated that VELCO is also reviewing the emergency call procedure concerning whether to call 911 or call control room first. VELCO Coordinators have expressed some concerns about the potential to drop call during the transfer to 911. VELCO is considering a one-button transfer system. Mr.

Wright described a situation where a call was dropped and the first responders had to search for the injured person's location. In some cases, the essential thing is to get the system de-energized immediately.

Mr. Dunn stated that reaction of the contract crews has been uneven. Mr. Massie reported that the workers were very helpful and gave good information. VELCO understands that the contractor involved in the incident released workers following the incident. Although not directly involved in the contractor's internal review and subsequent actions, the worker release could be perceived as a punitive reaction, blaming the workers, rather than looking at supervision and practices. However, upon further discussion, contractor management staff revealed that several workers were, in fact, retained and others dismissed for reasons beyond the incident. Mr. Dunn underscored the danger of asking people to provide information openly and then punishing them based on their honest feedback. Mr. Wright quoted the expression: "There are no bad employees; only bad managers."

STATCOM update

- Mr. Sebastiao presented slides in the meeting package concerning the STATCOM project, walking the group through the process used to select GE as the vendor.
- Mr. Couture asked if VELCO has evaluated potential effects of proposed merchant/economic projects. Mr. Sebastiao said the analysis included those projects that can be counted on to come to fruition, so the early-stage proposals for merchant projects were not included.
- Mr. Johnson asked whether the evaluation methodology, which weights technical proposals, vendor capability, and project management and commercial capability, was created for this project or was generic. Mr. Sebastiao responded that some elements were generic and some were customized based on the Request for Information (RFI) process.
- Mr. Sebastiao was questioned as to whether costs came in as expected. He said it varied by vendor, but the costs were in line with what VELCO estimated for the sub-components evaluated.
- Mr. Couture asked if the ability of the technology to ride through lightning strikes represented an advancement and broader bandwidth for ride-through. The answer was a preliminary yes as more studies need to be done. It is known that the technology is expected to resolve some of the gate-blocking problem previously experienced. He described that the new power electronics technology results in the elimination of delay in the system coming back on line as soon as a fault clears. This will move some of the points that are currently outside the CBEMA curve into the curve. Studies show the GE system would ride through on a single phase fault and would provide some support to the transmission system, but more studies need to be done to validate the ultimate performance of the facility.
- Mr. Sebastiao described the team's evaluation of changing the cooling fluid from ethylene glycol to propylene glycol. GE says it anticipates it will be able to make the switch but will qualify its equipment first to ensure the performance is not compromised. VELCO will review the equipment qualification process before approving the change.
- The final step in the process was "best and final offer." At this stage, GE has improved its price. GE is highly motivated to secure the contract to show it can do utility scale, not just industrial scale, installations.
- Mr. Etori asked if the GE solution will have the same human interface as the Highgate Converter. The answer was no, as they will be from different vendors, but the HMI will be GE's equivalent to ABB's Mach 2 system used at Highgate. The Mark 6 control system has been used in many utility applications and VELCO has a good comfort level that this control system solution will last.

Penta update

Mr. Connaughton provided an update on the status of the Penta investigation. He reported that sampling is complete. The best management practices working group has held five meetings. The next will be held June 2. The

group plans two deliverables: (1) a summary report of the investigation performed; and (2) a best management practices (BMPs) document. The framework of the document includes: procurement including documentation; pole storage; siting and construction; removal and disposal (including attention to reuse practices); and training. The BMPs are purposely “light” to allow utilities to build on their own specific practices. The document is expected to be completed by fall or early winter. Mr. Wright asked whether pole wraps extend the life of poles. Mr. Connaughton said that they would do so in theory as they hold in the wood treatment. Mr. Connaughton observed that the working group had allowed the data to speak for itself, thus allowing the group to realize that BMPs would be an appropriate response to the issue.

Physical security

Mr. Lind presented the slides on physical security that were included in the meeting package. He was asked whether the costs of physical security upgrades were pool transmission facilities (PTF) or non-PTF. (Subsequent to the meeting, Mr. Lind confirmed that the security costs will be allocated per the VELCO global PTF/non-PTF ratio.) He was asked whether the system will be configured to turn on lights in substation yards when the system detects an intrusion and the answer was yes. Mr. Etori asked whether VELCO was considering adding audio capability, and was told that it was currently being evaluated for technical requirements and may be added. Mr. Dunn asked when the last reported thefts had occurred in substations. No thefts have been reported since July 2014. Copper prices have come down, and at least five people have been caught, which may have removed repeat offenders from the street or provided some deterrence. Mr. Dunn said these improvements have been achieved at reasonable cost in contrast to over-reaction in some places around the country. Mr. Wright asked if anyone is trying to protect lines, vs. substations. Mr. Dunn said this would not be reasonable and that utilities must focus on resiliency. Mr. Wright asked whether the Pinnacle Ridge yard theft culprits had been caught. They have not, but investigation continues.

Statewide Radio System

Dan Nelson reviewed the slides in the package. The site identified as “Hanley” on slide 3 should be “Castleton” (Hanley is the mountain; Castleton is the town.) Questions were posed about what is causing the Vermont Public Radio (VPR) interference problem in Middlebury. VPR has temporarily turned off the equipment that’s interfering and will have to tune its system so it stays within allotted spectrum. Mr. Couture commented that GMP recently reviewed and made adjustments to the installations and operations of the mobile radio equipment installed in its trucks, which produced improved functionality of the equipment.

ISO-NE report

Mr. Etori presented the ISO-New England update slides in the meeting package. Mr. Powell asked whether VELCO was alone in opposing the ISO winter fuel program. Mr. Etori described the various stakeholders who had taken the same position as VELCO in opposition to the program, and VELCO’s concerns about unnecessary cost engendered by the program. Mr. Powell asked the status of the gas pipeline expansion discussion. Mr. Etori reported that the gas pipeline is still on the table, though the discussion is not currently focused on electric ratepayers to fund gas infrastructure.

Power Accounting update

Mr. Etori gave an update on the status of the Power Accounting system issues with Bridge Consulting and the work with ARC. In reply to a question about project costs for hardware and software, Mr. Etori said VELCO will buy the hardware from Bridge. The Bridge quote was \$50K (hardware and software combined), but VELCO believes \$12K should not be included. The total ARC cost for all three phases is approximately \$2.5M.

Interconnection

Ms. Frankel reported on the status of the Public Service Department-led effort on revision of the Public Service Board’s interconnection rules. She reported that the initial workshops are complete and the group is now awaiting a “straw man” proposal from PSD. She also reported on preliminary discussion including PSD and some utilities regarding development of a common database for tracking what distributed resources are permitted and installed,

an effort that could potentially be led by VELCO. The group recognized the need for visibility of these resources given their rapid growth and the implications of renewables legislation passed in the current legislative session.

Adjournment

There being no further business, Mr. Etori adjourned the meeting at 2:30 p.m.