

FINAL VELCO Operating Committee Minutes

Date: July 18, 2019, 11:00 a.m. – 3:00 p.m.

Location: Green Mountain Power Montpelier, VT

Call-in: 1-866-720-4556, Code: 6027065

PARTICIPATING MEMBERS

- **Burlington Electric Department (BED):** James Gibbons
- **Green Mountain Power (GMP):** Ken Couture
- **Stowe Electric Department (SED):** David Kresock
- **Vermont Electric Cooperative (VEC):** Peter Rossi, Ken Tripp
- **Vermont Electric Power Company (VELCO):** Chris Root, Frank Etori, Jason Pew
- **Vermont Public Power Supply Authority (VPPSA):** Stephen Fitzhugh
- **Washington Electric Cooperative (WEC):** Bill Powell

OTHER PARTICIPANTS

Brian Connaughton (VELCO) partial by phone, Mary Coombs (VELCO), Tom Dunn (VELCO), Brian Otley (GMP), Colin Owyang (VELCO), Hantz Presume (VELCO), and Mark Sciarrotta (VELCO)

OPENING REMARKS

Mr. Root verified a quorum and called the meeting to order at 11:01 a.m.

The agenda was reviewed and adjusted to accommodate schedules.

A discussion of the impending heat over the next few days and the forecasted loads for VT and New England ensued. Mr. Root reported that he held a phone interview with a local news agency, WPTZ, with regard to the status of the NE transmission and power supplies during the anticipated high load period.

SAFETY TOPIC

Mr. Couture provided a review of an event that occurred involving a GMP line crew working to replace a pole with a digger truck. The claw on the end of the truck's boom made contact with an energized distribution line. The distribution line, a small bare #6 copper conductor, was the only attachment on the pole.

Two crewmembers were working on the truck at the time of the contact. The Operator working the controls was standing on the truck and was unaware of the contact. A second crewmember was standing on the ground and using the back of the truck as a work surface felt what he described as a shock. He did not report any injuries nor did he appear uninjured, however he was transported to the hospital for observation to ensure there were no concerns.

The event was reviewed and reported to all of the line crews. One of the lessons learned was a change in work practice; with the exception of the Operator, all crewmembers will remain clear of any truck while the boom is moving.

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CYBER SECURITY DISCUSSION

Mr. Fitzhugh discussed the cyber security work that Norwich University performs at a high level. He further reported that the August Operating Committee meeting would be held at Norwich and he will need the estimated attendance to organize logistics. The August meeting includes the periodic attendance of Mr. Jordan from the DPS to discuss ongoing and emerging cyber security threats that could affect the state's electric utilities. The inclusion of utility IT staff was discussed and agreed that attendance from this group would be beneficial.

Mr. Dunn discussed a recent visit to VELCO from FBI representatives covering the VT area from Albany. There was a focus on cyber security and VELCO's security measures concerning cyber assets were reviewed and complimented. Mr. Sciarrotta further reported that according to the FBI, phishing tactics are becoming increasingly common and more complex.

Mr. Rossi discussed the DPS cyber group being organized by Mr. Jordan and the potential conveyance of confidential information. As the DPS is a state entity, any information provided to them could potentially be accessible by the public. Mr. Owyang suggested that due to the possibility of a public records request, no confidential information be shared in writing within the group. Mr. Root reported that he will discuss the matter with Mr. Jordan. Mr. Otley stated that the diversity of the utilities' practices is part of a good cyber defense as one vulnerability is likely not common for all. He further agreed that sharing such information should not be done.

Mr. Rossi also discussed VELCO's use of a program that is used to manage and send notifications to various group contacts. Mr. Root reported that the program is used for emergency internal notifications as well as other groups. It is purposely hosted externally to mitigate the risk of making notifications in the event VELCO communication systems fail. Mr. Rossi had previously inquired about managing those contacts with a single company login to resolve any changes to the current contact information. Mr. Pew agreed to follow-up with the program administrator.

MINUTES APPROVAL

Mr. Pew presented the meeting minutes from June 20, 2019 for approval and noted that page 4 of the minutes appear to have been unintentionally omitted from the printed copies supplied to the group. The omitted page was displayed for review.

Mr. Rossi discussed fire code 855 and the likelihood of an exemption for lead-acid and utility owned systems.

Mr. Powell moved for approval, Mr. Root seconded, and the minutes were approved as displayed.

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EMERGENCY PREP GROUP ANNUAL MEETING AND GRIDEX V

Mr. Pew provided an overview of the upcoming Emergency Preparedness Group's Annual Meeting and the GridEx V exercise.

The Emergency Prep Group's Annual Meeting will be held on October 8, 2019 at the Vermont State Emergency Operations Center (SEOC) in Waterbury. The agenda includes:

- Cyber/Physical threats and vulnerabilities
- Climate change and increasing severe weather
- Storm impacts and Lessons Learned from recent events
- Emerald Ash Borer update
- Outage/impact database & model
- Critical Telecommunication and dependence on new technologies

GridEx V is a grid security exercise coordinated by the North American Electric Reliability Corporation (NERC) that includes participants from across North America. The voluntary exercise occurs every two years. This year's exercise will take place on November 13 and 14. Its Objectives include:

- Exercise incident response plans
- Expand local and regional response
- Engage critical interdependencies
- Increase supply chain participation
- Improve communication
- Gather lessons learned
- Engage senior leadership

Day one will include over forty VELCO participants and serve as VELCO's Annual Emergency Response Exercise. Included in the first day will be observers from VT Distribution Utilities, FBI, DHS, VT State Police, and VT National Guard.

VELCO WEATHER PROJECTS

Mr. Connaughton reviewed the status of the various weather projects VELCO is currently engaged in.

- Ice accretion, a collaboration with Northview Weather to provide a conductor ice accretion forecast.
- Product development, a partnership with Utopus Insights (UI) to develop various products that includes Peak Load Management (PLM). Due to competing commitments by UI, this project is currently paused; a revised scope and schedule will be necessary before reengagement activities are begun
- Long-Term Weather Project, a collaboration with Northview Weather for the benefit all of VT electric utilities by providing forecasted weather trends in the future due to climate change. The scope will include rain and wind trends and will include its effect on vegetation.
- Short-Term Weather Project, a summary of activity involving Atmospheric Data

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Solutions (ADS) and IBM (Deep Thunder). The project includes the installation of Deep Thunder (DT) on the VELCO High-Performance Computing Cluster (HPCC) and the engagement of Scott Capps (ADS) to support the current VELCO Weather Research and Forecasting Model (WRF) and assist with the installation of DT.

Mr. Couture inquired about the support of DT. Mr. Connaughton provided that the short-term goal is to stand up DT and the VELCO WRF on the HPCC to continue to provide forecast data. Ms. Coombs reported that any additional information beyond weather would no longer be supported by IBM.

Mr. Root reported VELCO had gone through a process to identify the weather offerings which were providing value and which could be terminated.

Ms. Coombs discussed Scipher Fx, a product that UI has evolved from UI HyperCast Wind and Solar Forecasts. This product could be included in any future UI engagement to provide renewable forecasting for VT utilities.

HIGHGATE SWITCHING ISSUE

Mr. Pew provided an overview of an inadvertent switching event that resulted in customer outages. A VELCO System Operator wished to toggle a status point (indication only) to resolve an indication error received by ISO-NE (switch was closed but appeared open) but mistakenly operated the device in the field. An analysis was performed the following day that included representatives from Compliance, EMS, and Operations.

Several actions were taken to prevent a similar recurrence in the future that included:

- Resolution of an open trouble ticket with the EMS Vendor to address the need to toggle the status points.
- Reconfiguration of the SCADA display used to operate the point to remove operating functionality; normally station one lines are used to operate points in the field.
- Revise the control dialog box (used to issue controls) to differentiate it from manual entry dialog box (used to change status but not to execute controls); a bright red box was provided around the actual control point.

PUC INTERCONNECTION RULEMAKING

Mr. Sciarrotta discussed the evolution of the 5.500 Standard that began in 2006. Mr. Rossi and Mr. Powell each discussed the latest change to the rules for DG connections. With the new rules now in place, there was a push by the installation companies to get DG installed before rates were reduced. Both reported a significant increase in the number of applications.

Mr. Sciarrotta continued and reported that in June of this year, stakeholder comments were requested. General themes included the following:

- Additional focus on emerging technologies such as battery storage
- Harmonizing Rules 5.100 and 5.500

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- Adding language to address applicable interconnecting codes and standards
- Clarification and definitions requested
- Examining the applicability of the Fast Track Screening process
- Application fee adjustments
- Replacement of the supplemental review process
- Consideration of imposing processing deadlines on the PUC
- Compliance tracking
- ePUC platform for interconnection filings

Mr. Fitzhugh discussed an issue with net metering applications that he has witnessed where one line displays are not needed for initial submittals. This causes an issue with larger plants that require additional protection (direct transfer-trip); however, without full knowledge of the facility, it is difficult to plan an interconnection.

GE ASCUTNEY WORK PROPOSAL

Mr. Pr sum  discussed an open item concerning GE and the Ascutney SVC project. The installation did not deliver the sound levels identified within the contract. GE is providing shrouding for external equipment that will mitigate the issue. Due to the timing of the mitigation, there is a sum of money due for liquidated damages. In lieu of direct payment, GE has agreed to provide the following:

- Provide NERC Critical Infrastructure Protection (CIP) compliance for the Ascutney SVC electronic systems
- Perform a study to determine the LMP effects of a battery installation within the Sheffield Highgate Export Interface. The battery would be studied as an alternative to a K42 line upgrade.
- Perform a study to determine the effect of a potential upgrade to the K42 line (Georgia Substation, St. Albans Substation, Highgate Converter, and Highgate Substation) on the Locational Marginal Pricing (LMP).

A question on why a study on LMPs was necessary was brought forward. It was discussed that such a study would be needed to decide whether it makes sense to proceed with an upgrade, and to support the 248 filing if an upgrade is found to be sufficiently beneficial to VT.

UTV/ATV SAFETY TRAINING

Mr. Root reported that VELCO has recently certified three employees through the Recreational Off-Highway Vehicle Association (ROHVA) to provide UTV/ATV safety training. This is required training for VELCO employees before they can use such transportation and as needed for refresher training every two-years.

If anyone is interested in receipt of this training, contact Jacob Watrous (VELCO). It is requested that a two-month advance notice be provide to accommodate scheduling.

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OTHER BUSINESS

Open discussion

The schedule of the next few meetings was discussed. The next meeting will be held at Norwich University in Northfield. The September meeting will be the annual joint CFO/OC meeting as discussed previously.

Next meeting

Date: August 15, 2019, 11:00 a.m. – 3:00 p.m.

Location: Norwich University

Possible topics for discussion

- Cyber security will be the focus at the next meeting
- No additional topics were brought forward

MOTION TO ADJOURN

Mr. Couture moved to adjourn, Mr. Rossi seconded, and the meeting was adjourned at 01:47pm.

Respectfully submitted,

Jason Pew
VELCO OC Secretary