

DRAFT VELCO Operating Committee MINUTES

Date: November 21, 2019, 11:00 a.m. – 3:00 p.m.

Location: Green Mountain Power Montpelier, VT

Call-in: 1-855-260-5550, Code: 7706298

PARTICIPATING MEMBERS

- **Burlington Electric Department (BED):** James Gibbons
- **Green Mountain Power (GMP):** Mike Burke, Brian Otley
- **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, Craig Myotte

OTHER PARTICIPANTS

Mary Coombs (VELCO), Dave Haas (VELCO) by phone, Kerrick Johnson (VELCO), Shana Louiselle (VELCO) by phone, Dan Nelson (VELCO), Dan Poulin (VELCO), Bill Powell (WEC), Hantz Presume (VELCO), Doug Smith (GMP), Kris Smith (VEC) by phone, and Phil Sussman (Norwich University)

OPENING REMARKS

Mr. Root confirmed a quorum and called the meeting to order. Discussed the impending weather that includes the potential for high winds relatively shortly with an additional weather system forecasted for the weekend.

Mr. Fitzhugh discussed during the recent voltage reduction within New England that appeared to increase load during the test. One theory being discussed within VPPSA is that solar could be dropping out due to low voltage.

Mr. Root discussed adding an agenda topic to discuss the PUC/DPS hearing on resiliency.

Mr. Rossi offered to discuss ATT First Net as an additional topic if time allowed.

SAFETY TOPIC

The group discussed the change of seasons and necessary vehicle maintenance that accompanies the impending change to winter weather.

MINUTES APPROVAL

Mr. Rossi moved to accept as presented.

Mr. Powell seconded. The minutes were approved as presented.

LEPC TABLE TOP EXERCISE

Mr. Tripp discussed a recent tabletop exercise that included engagement with the Orleans County Local Emergency Planning Committee (LEPC #10) at the Newport Hospital.

The tabletop posed a hypothetical incident where a sub-transmission/distribution voltage transformer was purposely shot by a disgruntled member whose power had been disconnected due to non-payment.

The simulated response by the VEC Control Center began with a high temperature SCADA alarm on the station's transformer. A report from a member of shots fired in the vicinity of

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the same transformer was the first clue that the high temperature alarm was more than an indication issue. VEC made several internal notifications and used a remote site to stage responders until the site was cleared by local authorities. An initial inspection was conducted using substation cameras. The damage was severe enough to cause the transformer to leak and required oil clean-up and related oil spill reporting; all of which were simulated during the exercise.

The simulation included three main phases. Phase 1 – What just happened?, activation of active shooter and oil spill scenario. Phase 2 – Lock it down, tactical operations of law enforcement. Phase 3 – “clean it up”, recovery operations.

Unrelated to the tabletop, Mr. Rossi reported that VEC has suffered gunshot damage to one of its substation control cabinets several times. This has resulted in them redesigning the cabinet to be more resilient to similar damage.

Mr. Burke reported that a somewhat related incident, referencing the oil spill simulation, occurred to a GMP substation during a recent wind event. Flying debris hit a transformer and caused oil leak that eventually caused a catastrophic fire and the removal of the substation from service.

STORM DEBRIEF DISCUSSION

Mr. Rossi reported on the October 31, 2019 storm event and its impact to the VEC service area. Mr. Rossi thanked team VT with special note to BED and the role they played in supporting VEC’s recovery. VEC incurred 327 separate events with over 18,000 meters lost. Long recovery time that lasted from October 31 through November 4. The majority of damage (59%) was caused by tree contact. This “Halloween event” was the third most damaging behind storm Philippe in 2017 and Storm Bruce in 2018.

The storm costs exceeded \$1M. There is opportunity for federal funding for resiliency projects that would help to harden areas of concern.

Mr. Kresock reported Stowe Electric lost roughly half of their customers (2200); with approximately 50 customers out for approximately 30 hours.

Craig Myotte reported Morrisville Electric lost approximately 900 customers caused by roughly 25 individual events. One particular customer had four separate events.

Mr. Burke reported GMP had roughly 2100 events and 57k outages at peak; similar to last November 2018 (Storm Bruce). They suffered 50-60 broken poles across VT with 68 circuits operating to lockout.

Mr. Nelson reported that the state-wide radio system saw some of the heaviest traffic. Several efforts in support of resiliency resulted in radio sites remaining online; the most effective was the addition of onsite back-up generation to the mountaintop sites. Approximately 20 mountaintop sites had lost power and were running on generators. One tower had a microwave misalignment likely due to the high winds that was brought back into service at a reduced power without the need to climb the tower under the hazardous wind conditions.

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Mr. Burke reported that during the event the known areas without radio service were reported as the areas with the most impact in damage.

Mr. Rossi reported that during the state-wide Emergency Prep Call the second roll call that is done at the end of the call seem unnecessary.

Mr. Powell reported WEC had roughly 5800 outages (of 11,000 members). They had assistance from out-of-state utilities. They had 23 damaged poles.

Mr. Burke reported that UTVs have been a significant game changer in response. Mr. Root offered that VELCO has two trainers for UTV operation if anyone is interested in getting training let him know.

UI PEAK LOAD SUPPORT PAYMENTS DISCUSSION

Ms. Coombs reported that IBM has installed Deep Thunder (DT) on the VELCO HPCC recently. This has been a soft roll-out as the final production state has yet to be identified. DT is a product that VELCO owns and its installation on the HPCC is essentially just updating the engine that drives the processes. The VELCO WRF is also running on the HPCC and some additional room exists for other possibilities.

Ms. Coombs inquired about the wind and solar forecasting (DER) that is available from UI. Discussion revealed that most people are not using the product. She further offered that UI is offering Scipher FX, the latest DER forecasting tool, free of charge. There would be a \$100K maintenance cost if the product were to be installed. UI has offered to provide a demonstration on the product for those that might be interested.

Mr. Otley reported that as an owner of VESTAS turbines they receive a forecast that he believes is unrelated to the UI tools. He further reported he would be willing to pass on the product, Cipher, provided it did not affect the current forecasts received from VESTAS.

Others offered that they would defer this decision to those who might be more impacted.

Mr. Etori offered that he would poll the Peak Load Management (PLM) team and extend the Scipher FX demonstration to that group. The group agreed and Mr. Etori assumed that action item.

GENERATION AND TRANSMISSION PROJECTS

Mr. Presume reviewed the current ISO-NE interconnection queue that would affect VT and other notable external projects. Inquiries into the current SHEI constraint and location of these potential interconnections occurred. In general, the projects are planned south of the constrained SHEI area and not affect the current constraints.

Several large generation projects proposed within VT will benefit other New England states with regard to renewable energy goals.

Mr. Gibbons discussed that the transmission capacity being used to support the delivery of power out of state results in a reduction of excess capacity. Further, this reduction might result in VT projects that would benefit VT having potential constraints.

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NEW HAVEN OPERATIONS FACILITY

Mr. Poulin presented a project that would serve as VELCO's back-up operations center. The project will serve multiple purposes and is likely to be LEED Certified.

FUTURE SCAP SUBSTATIONS DISCUSSION

Mr. Poulin provided an overview of the Substation Condition Assessment Project (SCAP). The process to conduct an assessment and the facility assets that are evaluated as part of the project were reviewed.

Mr. Root requested that each entity review the list of scheduled projects to see what, if any, affect it may have to the local VDU facilities.

NORWICH UNIVERSITY APPLIED RESEARCH INSTITUTES (NUARI) DECIDE CYBER EXERCISE DISCUSSION

Mr. Phil Sussman provided an overview of the NUARI DECIDE platform. This platform offers a means of exercising a cyber-threat scenario. Mr. Sussman reported that through NUARI he could assist in standing up a cyber-simulation for the VT electric utilities to participate in.

Mr. Root discussed who would want to participate; all parties agreed that the state electric utilities should participate.

Mr. Nelson reported that he would take the lead on organizing the initial effort with the state utilities.

A discussion about how the VT state government will participate resulted in the desire for them to be observers and not active participants.

DPS DISCUSSION ON RESILIENCY

Mr. Johnson reported that the Department has scheduled a meeting on resiliency. This will include a report out on what VT utilities are doing to address this topic.

OTHER BUSINESS

Mr. Otley was appointed as the Alternate GMP representative to the VELCO Operating Committee.

Mr. Rossi reviewed the ATT First Net emergency responder mobile telephone service that VEC is transitioning to. It requires new hardware to convert but ultimately results in a cost savings due to lowered monthly access fees. He further reported that he has seen improvement in service since his phone had been transitioned.

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Next meeting

Date: December 19, 2019, 11:00 a.m. – 3:00 p.m.

Location: Green Mountain Power Montpelier, VT

Possible topics for discussion

- Grid Ex participation
- Energy Storage as originally scheduled for today
- NERC Spider (System Planning Impacts from Distributed Energy Resources)
- VT Long Range Plan
- Operations Training Simulator
- BOD update

MOTION TO ADJOURN

Mr. Tripp moved to adjourn, Mr. Burke seconded, and the meeting was adjourned at 2:50 p.m.

Respectfully submitted,

Jason Pew
OC Secretary