

Final VELCO Operating Committee MINUTES

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

Location: Green Mountain Power Montpelier, VT

PARTICIPATING MEMBERS

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

OTHER PARTICIPANTS

Tom Dunn (VELCO), Colin Owyang (VELCO), Kris Smith by phone (VEC), Dan Kopin (Utility Services) partial am only, Doug Smith (GMP), Kerrick Johnson (VELCO), Tom Muehlesisen (Norwich University), Kristen Petersen (Norwich University), and Phil Sussman (Norwich University) partial am only

OPENING REMARKS

Mr. Root verified a quorum and called the meeting to order at 11:04 a.m. The agenda was reviewed and as several guests are present, they will lead the meeting off after which, they will leave and the closed meeting will continue.

SAFETY TOPIC

Mr. Rossi reported on an event at the VEC Operations building in Johnson. A VEC System Operator reported a haze and electrical smell within the building. The building was evacuated and the fire department was called. The System Operator evacuated to the back-up facility, the customer call center was transferred to its back-up facility, and other staff remained outdoors until the fire department cleared a safe area for them to return indoors. VEC successfully enacted their business continuity plan and perform all normal work functions by mid-morning. An investigation is still pending into the cause of the morning's events.

Mr. Root discussed the busy holiday season and the potential for multiple distractions that accompany. A reminder for all to keep extra vigilant over the next few weeks.

Mr. Etori discussed an event involving his wood stove where his house filled with smoke and CO. Upon his return home, the smoke and CO alarms were all alerting of the danger. His lesson learned is that although he was properly protected when at home, having remote monitoring would have been helpful so he could have addressed the issue in a timelier manner. He has since installed smoke/CO detector that connects to his home network and will provide alerts via his smartphone if a similar event were to occur in the future.

NERC SPIDER – DER IMPACTS

Mr. Kopin of Utility Services provided a presentation of the NERC System Planning Impacts from Distributed Energy Resources (SPIDER) Working Group and the associated Distributed

Final VELCO Operating Committee MINUTES

Energy Resource (DER) impacts.

Included in the presentation was the working definition of a DER: Any resource on the distribution system that produces electricity and is not otherwise included in the formal NERC definition of BES.

The SPIDER Working Group work plan was reviewed that include Modeling, Verification, Studies, Coordination, and each of the associated reliability guidelines. Standard (NERC Reliability Standard) Authorization Requests (SARs) affecting any NERC Standards from this review will be available beginning in Q2 of 2020.

Included in the presentation was a review of the Angeles Forest Disturbance Report (1/22/2019) in which a portion of solar PV (130MW) tripped following a transmission fault and resulted in an increased demand for several minutes. While the size of the event was not significant for the California Independent System Operator (CAISO) area, it is representative of a potentially much larger event. Modeling standards developed in 2017 are not sufficient to model the increasingly disparate systems and associated DER technology.

Specific Standards discussed in the presentation included MOD-032, TPL-001, and PRC-006. Included in those discussions was the need for a single database that could house the information required to model DER (pre/post-IEE 1547 inverters, capability, manufacturer, etc.).

NU CYBER EXERCISE UPDATE

Mr. Sussman of the Norwich University Applied Research Institutes (NUARI) introduced representatives of the team who will assist with planning an exercise with the VT electric utilities as discussed last month; Tom Muehleisen *Cyber Operations* and Kristen Petersen *Exercise Developer*.

Mr. Muehleisen provided recommendations for the exercise that included the following.

- 120 or a 180-day planning cycle that culminates with a tabletop exercise using the NUARI Decide platform
- Use existing cyber incident response plans
- Exercise various authorities, escalations, and information flows

The Homeland Security Exercise Evaluation Program (HSEEP) provided by FEMA will be used to both develop and evaluate the exercise. The exercise will be conducted on a computer platform, Decide, developed by NUARI that allows participants to remain in their normal work locations allowing them access to normal tool sets. The platform captures and tracks the events and responses in a single location and assists with after action reporting.

Planning will begin in January with an exercise-taking place in April or June depending on the chosen development timeframe. Utility costs associated with the exercise and its planning is limited to participants' time; all other costs are covered under a grant from Homeland Security.

Final VELCO Operating Committee MINUTES

Mr. Pew will follow-up with Mr. Muehleisen to access the HSEEP documents and to provide Mr. Muehleisen with the most recent VELCO exercise Master Scenario Event List (MSEL).

Mr. Muehleisen requests that he be provided with a vision statement (concept and objective) by a senior representative at VELCO. After short discussion, it was decided to have Mr. Dunn provide this vision statement for the exercise to be conducted in Mid-June.

The planning lead was decided to be a VELCO representative and could be the normal exercise planning staff led by Operations or possibly within the exercise focus area of information technology.

ISO-NEW ENGLAND DISCUSSION

Mr. Etori discussed ISO-NE pressure to incorporate additional renewable generation as part of the New England energy resources. Mr. Etori further provided a Massachusetts Department of Energy Resources Solar Massachusetts Renewable Target (SMART) presentation that included current and projected solar and battery projects within the state.

DRAFT MINUTES APPROVAL

Mr. Root presented the meeting minutes from November 21, 2019 for approval.

Mr. Fitzhugh moved for approval, Mr. Rossi seconded, and the minutes were approved as presented without objection.

STORAGE DISCUSSION

Mr. Johnson briefly discussed potential energy storage within VT as well as recent work on VT PUC Rule 5.500 (Electric Generation – Interconnection procedures) where storage will additionally be discussed.

Additionally, a proposed storage project within VT that appeared, per the storage company's press release, to be approved and being constructed was discussed. This proposed storage project has not been chosen as a solution to alleviate congestion within the constrained northern VT area and any announcement on its possibility is extremely premature. No solution has been decided on.

SHEFFIELD HIGHGATE EXPORT INTERFACE (SHEI) STUDY STATUS

Mr. Smith discussed the status of the SHEI and the working group in which he has been active. GMP and Morrisville have each recently filed for CPGs to upgrade sub-transmission lines (B20 and B22 lines) and a GMP substation. The current infrastructure is roughly 60 years old and would need to be addressed within, roughly, a 10-year period. Mr. Smith noted that this needed refurbishment would also benefit the SHEI constrained area by allowing the underlying sub-transmission to support reliability following certain limiting contingencies.

Additional to the work on the sub-transmission, an area hydroelectric plant has already been outfitted with dynamic voltage control and is likely to reduce the congestion as well. Similar voltage control functionality at a northern area windfarm are also being considered

Final VELCO Operating Committee MINUTES

as they could also provide additional benefit.

Mr. Gibbons took the opportunity to thank GMP and Mr. Smith for the guidance that has been provided to the SHEI working group.

Mr. Root further reported that options to upgrade to the K42 line, a contributing thermal limitation of the constrained SHEI area, are still being evaluated.

2019 OPERATIONS AND CONSTRUCTION HIGHLIGHTS

Mr. Root discussed some highlights from 2019. This included a health and safety overview, system performance, Energy Management System version upgrade and the new Operations Training Simulator, live-line and hot-line transmission work practices for structure replacement, compliance audits, overview of various substation work, ROW management that included over 2000 danger or potentially unhealthy trees risking reliability, financial information, and significant VELCO project overviews.

VELCO BOARD OF DIRECTORS UPDATE

Mr. Dunn reported that the discussions covered today and within the 2019 Operations and Constructions Highlights provided by Mr. Root were representative of the discussions that have been occurring at the BOD.

DEMONSTRATION RESULTS FROM UTOPUS INSIGHTS (UI)

Mr. Etori provided a follow-up of the UI discussion from last month's OC meeting. Because of that discussion, UI provided a demonstration of the ScipherFX product to the Peak Load Management (PLM) group. This demonstration did not warrant a second demonstration and thus the PLM group thought it best not to pursue.

Additionally, a discussion on the potential impact of ending the UI engagement revealed no specific issues. Mr. Etori provided a questionnaire to the participants to ensure we do not turn off any application that is currently being used and to get a better understanding of future needs. Members agreed to have responses provided to Mr. Etori for further discussion.

2020 CALENDAR

Mr. Root discussed the location and time for 2020 meetings. The group decided the current practice of the third Thursday remains acceptable.

OTHER BUSINESS

Open discussion

- None

Next meeting

Date: January 16, 2019, 11:00 a.m. – 3:00 p.m.

Location: Green Mountain Power Montpelier, VT

Possible topics for discussion

- Continuation on storage to include request for installed capacity

Final VELCO Operating Committee MINUTES

- Andrew Flynn and LIDAR
- Frank Etori, Condition based asset maintenance
- Northview weather update
- February – DPS attendance

MOTION TO ADJOURN

Mr. Powell moved to adjourn, Mr. Gibbons seconded, and the meeting was adjourned at 03:02pm.

Respectfully submitted,

Jason Pew
VELCO OC Secretary