Date: February 21, 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): Mike Burke, Ken Couture
- Stowe Electric Department (SED): David Kresock
- Vermont Electric Cooperative (VEC): Peter Rossi, Ken Tripp
- Vermont Electric Power Company (VELCO): Frank Ettori, Jason Pew
- Vermont Public Power Supply Authority (VPPSA): Stephen Fitzhugh
- Washington Electric Cooperative (WEC): Bill Powell

OTHER PARTICIPANTS

Tom Dunn (VELCO), John Fiske partial from 1:30 by phone (GMP), John Flynn (VELCO), Shana Louiselle (VELCO), Mary Peterson (BED), Hantz Présumé (VELCO), Chris Smith by phone (VEC), and Bill Jordan partial from 1:30 (VT Department of Public Service)

OPENING REMARKS

Mr. Ettori verified a quorum and called the meeting to order at 11:02 a.m.

SAFETY TOPIC

Mr. Fitzhugh discussed a recent safety drill, an active shooter that took place on the Norwich Campus. The campus guidelines are to execute the following items, in order, until safety is achieved: Run, hide, and as a last resort, fight. During the drill he was one of several monitors who wore vests indicating their role of an observer. The monitors provide feedback both directly with students and staff as well as a report to leadership with results and recommendations.

MINUTES APPROVAL

Mr. Ettori presented the meeting minutes from December 20, 2018.

Mr. Tripp moved for approval, Mr. Couture seconded, and the minutes were approved without objection.

Mr. Tripp inquired about a follow-up from the St. Johnsbury event as discussed in the December 2018 meeting. It was noted as a potential future agenda item.

LEGISLATIVE ITEMS

Mr. Flynn provided an overview of the current Vermont Legislature relating to the electric utilities.

The House was initially focused on the Sheffield Highgate Export Interface (SHEI) as well as expanding access to broadband to all Vermonters. It was recognized that the Vermont electric utilities have been actively working together to provide mitigation solutions to the SHEI and thus the House has re-focused on other areas, which include broadband deployment. This is significant to the electric utilities as several Bills have been introduced that will affect the state electric utilities. Specifically discussed were Bills that would result in a feasibility study of the electric utilities to provide broadband service as well as a Bill that will assist in the design and deployment of broadband throughout VT.

The Senate has introduced a bill that would result in an added responsibility of the Public Utility Commission (PUC) to perform a feasibility study, similar to the House, regarding the electric utilities ability to provide broadband. The Senate has an additional series of priorities that do not include energy or broadband.

Mr. Burke reported that a PUC Rule 3.700 was being re-opened in an apparent effort to accelerate the current process of getting broadband infrastructure connected on poles. Mr. Gibbons offered that the physical attachment of the infrastructure was being discussed and that the financial impact to the utilities remains open. Mr. Burke specifically discussed a "Make-ready" clause that would require utility owners to approve plans for attaching additional infrastructure to electric utility poles within a significantly shorter timeframe. This resulted in several discussions that included the safety of personnel working on/near energized conductors, the time allocated for such make-ready work, and the resulting expectations if those shortened timelines are not met.

Mr. Gibbons discussed additional items that included proposed rules for taxing EV charging and an associated intricate billing system, taxation on weatherization, and added 248 fees applicable to new permits and amendments. He noted that these, and similar items, have been discussed, and at times, not always with utility input.

VELCO STRATEGIC PLAN

Mr. Flynn provided a presentation on VELCO's Strategic Plan. For the past few years VELCO has carried forward the Champion, Deliver, and Transform initiatives.

What has been proposed to the VELCO Board of Directors is to look at different scenarios (merchant projects, various DER installations, Various EV adoption, etc.) combined with the VELCO Mission, Vision, and Values to find the right fit for the future initiatives. It could be that the proposed work would result in the current initiatives remaining relevant; alternatively, new and updated initiatives would better suit VELCO and its stakeholders. The proposed schedule includes collaborative work with VELCO personnel and the BOD that would result in a final product by September of 2019 for implementation in 2020.

One of the goals is to have a transparent process for discovery and selection of the strategic initiatives that can be adopted to individual area and employee goals' and objectives.

Additionally, built into the process will be specific indicators that could gauge the various scenarios and result in the re-evaluation of initiatives.

Mr. Fitzhugh asked who would develop the different scenarios. Mr. Flynn reported that the scenarios would be defined through collaborative efforts within VELCO and the BOD as well as leveraging existing work by others, such as GMP.

UTOPUS INSIGHTS (UI) STRATEGY

Mr. Ettori discussed the current status of the UI Partnership. Last year UI reported a 1-year delay in the development of their Transmission and Distribution (T&D) toolset that has been the focus of the VT utilities. In the interim, other options have presented themselves that include Peak Load Management solutions using currently untapped entities.

Mr. Dunn reported that UI is focused on the development of specific VESTAS wind turbine products. They have hired a new Head of Development that reported UI does not have the resources to support the goals of VESTAS in parallel with the T&D projects currently under development within the original timeframe. There remains a sum of money available to VT utilities in support of the T&D projects that remains available upon the re-engagement of UI.

Mr. Rossi reported that VEC has a proposal surrounding weather trends and the impact to electric reliability. The proposal would include overlaying weather events with Northview Weather modeling in an attempt to identify the cause of outages such as wind and vegetation practices or construction methods. He additionally wanted to engage the group to discuss if there was an opportunity to fund such research through the VT utilities.

Mr. Burke reported they supported this initiative. Further they had performed a similar study/investigation that provided some insight on the topic. Specifically they found that since 2000 there has been a 74% increase in precipitation and the initial indication was that vegetation management was not the main cause of outages; severe pressure variations resulting from weather events appeared to top the list.

Mr. Dunn provided that this type of discussion is good and should continue in a separate forum with those interested in participating.

Mr. Smith offered that if the same rigor was put toward supporting Northview Weather and its potential products as was put toward IBM/UI, it would likely result in useful products.

VELCO BOARD OF DIRECTORS (BOD) UPDATE

Mr. Dunn provided an overview of the most recent VELCO BOD meeting that included the following.

- Financial report
- Final 2018 Key Performance Indicators
- VELCO risks, specific discussion on cyber security and a large fine levied on a Transmission Operator due to multi-year and multi-standard NERC Critical Infrastructure Protection (CIP) Standards violations
- Emerald Ash Borer impact to VT utilities

- Culture, specific discussion on the development of the VELCO learning organization
- Capital Projects

ISO DRAFT 2019 SOLAR FORECAST

Mr. Présumé provided a presentation that included information from the draft 2019 ISO-NE solar Photovoltaic (PV) forecast. ISO-NE surveyed New England utilities on PV installations within their respective areas. The Survey was completed and received by January 22, 2019. ISO-NE then developed a draft PV forecast for NE that was released on February 11. Comments on the draft are due to ISO-NE on February 25. The Final report is expected on March 12 and those values will be included in the 2019 ISO New England Forecast Report of Capacity, Energy, Loads, and Transmission (CELT) expected on May 1.

The previously forecasted PV growth within NE for 2018 was 475 MW, the survey results indicated an actual growth of approximately 493 MW. Specific to VT, the 2018 forecast was approximately 32 MW and with an actual of approximately 49 MW. Additionally, the report provided a breakdown of PV by Distribution Company within VT that included the total number of installations (11,864) and total installed capacity (306 MW $_{\rm ac}$).

The ISO-NE PV installation forecasts had been low when compared to actual nameplate MW installations since the first forecast released in May of 2014. The forecast has been improving, as shown by the progressively lower differences between actual and forecast values over the years.

IEEE 1547 IMPLEMENTATION

Mr. Jordan discussed the ISO-NE Inverter Source Requirement Document (dated February 6, 2018) that was developed in coordination with the Massachusetts Technical Standards Review Group to address the then pending revision of IEEE 1547 Standard. It was noted that the IEEE 1547 Standard has been in effect since November 3, 2018.

ISO-NE reported to the VT Department of Public Service (the Department) that they had concerns about VT installations not abiding by the guidelines; VT does not mandate compliance with the ISO document. Mr. Jordan polled the participants to their respective adherence to the document.

Mr. Fiske reported that solar installations within their territory are required to implement the settings as provided by ISO.

Mr. Powell reported that solar installations within their territory are not requiring the use of the ISO settings. He continued and offered that the state add an acknowledgment that new installations have utilized the ISO settings on future applications.

Mr. Smith reported that the ISO settings are required for installations of 1MW or above. Additionally, for installations under 1MW, they are waiting on a deposition from the state.

Mr. Tripp asked if anyone was using the Volt/VAr functionality (voltage control) that is allowable per the latest IEEE 1547 Standard. Mr. Fiske reported that the use of this functionality is being explored. Further, he reported that to implement voltage control would will require significant coordination studies to model the effect on local voltage

control devices. The effects on local voltage control devices such as tap changers and voltage regulators is unknown and could lead to unforeseen issues.

Mr. Jordan reported that he will bring back Mr. Powell's suggestion to have the registration form amended to include an attestation for compliance with the ISO-NE document. He further requested that each utility enforce the ISO-NE document going forward if not doing so already. He did acknowledge that the ideal solution is to have the Commission mandate the use of the ISO-NE document and that could take some time to complete.

OTHER BUSINESS

Open discussion

Mr. Fitzhugh asked if any more studies or other insights can be gleaned from the carpole accidents and texting. The group discussed and it was reported by several
participants that car-pole accidents continue to be occurring and that no specific
information on texting was available.

NEXT MEETING

Date: March 21, 2019, 11:00 a.m. – 3:00 p.m. **Location:** Green Mountain Power Montpelier, VT

Possible topics for discussion

- Mr. Tripp requested a discussion on any follow-up from the St. Johnsbury event on 12/15/18
- Mr. Rossi offered to bring forward a framework of a proposal to collaborate with Northview Weather in lieu of the UI engagement
- Mr. Rossi also suggested having Jay Shafer return and discuss the current status of his work and Northview Weather

MOTION TO ADJOURN

Mr. Rossi moved to adjourn, Mr. Gibbons seconded, and the meeting was adjourned at 01:24pm.

Respectfully submitted,

Jason Pew VELCO OC Secretary