

**DRAFT VELCO Operating Committee
MINUTES**

March 16, 2017, 11 a.m. – 3:00 p.m.
GMP Montpelier Office

Participating members: Ken Couture (Green Mountain Power), Frank Etori (VELCO), Stephen Fitzhugh (VT Public Power Supply Authority) by phone, James Gibbons (Burlington Electric Department, Jason Pew (VELCO), Bill Powell (Washington Electric Cooperative), Chris Root (VELCO), and Ken Tripp (Vermont Electric Cooperative)

Other participants: Mike Burke (Green Mountain Power), Tom Dunn (VELCO), Kerrick Johnson (VELCO), Dan Nelson (VELCO), Dan Poulin (VELCO), Mike Romano (VELCO), Peter Rossi (Vermont Electric Cooperative), David Kresock (SED) and Kris Smith (VEC) on the phone

Next Meeting
March 16, 2017
11 a.m. to 3 p.m.
GMP Montpelier
1-866-720-4556
Code: 6027065

Opening

- Mr. Root called the Operating Committee (OC) meeting to order at 11:02 a.m. Introductions were made around the table to accommodate meeting attendees on the telephone.
- Mr. Root introduced Mr. Rossi, the new COO of VEC, with the opportunity to introduce himself.

Safety Topic

- Mr. Root discussed the fresh snow and the associated dangers of the thin coating of snow that affects the driving surfaces. Mr. Etori followed up with the same danger being present on walks and driveways that could be covering existing ice underneath.

Minutes Approval

- Mr. Root presented the meeting minutes from February 16, 2017 for approval.
- Mr. Tripp moved for approval of the minutes, Mr. Powell seconded, and the minutes were approved as presented.

VELCO's High Powered Computing Cluster (HPCC)

- Mr. Romano provided a presentation on VELCO's HPCC which is currently being installed at VELCO. It will be used to run programs that support the VWAC programs.
 - Weather Model (Visualization / Weather InSights Environment - WISE)
 - Demand Forecasting
 - Renewable Forecasting
- Mr. Dunn asked how this will change the current VWAC programs. Mr. Romano offered that the current system runs on IBM hardware in Yorktown Heights, NY and having the hardware at VELCO removes our dependency on IBM. Further, the hardware is much faster than that of IBMs and appears to reduce the runtime of the

weather model by approximately 1 hour. This will support running the weather, and ancillary programs, on a more frequent basis (currently executed 2X day).

- Mr. Romano reported that the ability to integrate OSIsoft Plant Information (PI) data directly into the HPCC is being developed; removing the need to use VELCO's Energy Management System (EMS) interface and thus reducing the EMS workload. This allows for more predictive capability utilizing available data. An initial test of this ability was successfully conducted using data from a mountaintop State-wide Radio site. Further development of the remote capability with radio sites will likely reduce the need for time consuming site visits and more efficient use of personnel.
- Mr. Romano also discussed the use of the HPCC system during idle processing time to support other applications.
- A general discussion amongst the group included the other initiatives supported by VWAC; one such topic was Peak Energy Management. Mr. Tripp reported that the month of March reaches near-peak energy usage in the VEC territory due to the electrification of the sugaring industry. Historically the sugaring process was powered by local on-site generation as most areas were remote and distant to distribution sources. On-site generation is diminishing as VEC is reaching out to the industry and providing wired distribution solutions that results in increased loads during the sugaring season.

Washington Electric Co-Op (WEC) Renewable Projects

- Mr. Powell provided a presentation on WEC's net metering. Highlights included the following:
 - Before 2014, WEC had the most installations proportionate to its size for all VT Utilities. WEC had roughly 10% of its peak demand covered by renewable generation (98% of which was PV). At the time, the state requirement was 4% of peak demand.
 - Between 2014 and 2016:
 - New net metering applications were put on hold to determine the best course of action moving forward to ensure all members were represented fairly.
 - WEC met the requirements set by the state to allow it to propose an alternate net-metering program than the legislation at the time.
 - WEC's alternative program provides members with fair treatment, encourages additional net-metering, and includes an energy efficiency goal. Excess generation was paid at two rates based upon the amount of excess. The alternative program ended January 2017.
 - Starting in 2017, the net-metering tariff aligned with VT 5.100 rule. Excess generation remains payable to the members (state average with other adjustments). One highlight of the new tariff is the adoption of "Non-Bypassable Charges" which results in charges on electric bills being mandatory, regardless of credits acquired via net-metering.
- A general discussion from the group on Non-Bypassable as it relates to pre-existing customers' vs. new customers. As it stands currently, existing customers remain

grandfathered under the pre-2017 tariff.

Connecticut River Valley Project (CRV)

- Mr. Poulin presented VELCO's CRV project. This project was identified in VELCO's 2023 needs assessment; completed in 2014. The CRV project is funded throughout the ISO-NE operating area as prescribed in the Transmission Cost Allocation (TCA). The study concluded that under certain contingencies, unacceptable voltages could occur. The project includes the following:
 - Re-conductoring the 115kV line between the Coolidge and Ascutney Substations
 - Reconfiguration of the Chelsea Substation
 - A new Static Var Compensator (SVC) at the Ascutney Substation
 - Capacitor bank reconfigurations at the Hartford Substation
- Notable re-conductoring construction details were highlighted
 - COR-TEN steel structures were used; result in less tedious transportation in the ROW as the structures were transported in sections and assembled on-site.
 - Construction materials were provided by a procurement company that pre-packaged each structures material on individual pallets; allowing the delivery of each structure's pallet directly to the final location without the need for sorting and re-packaging.
 - The use of non-specular conductor resulted in a less visible impact for ROW and adjacent landowners.
 - Nearly 10K construction mats were utilized during staging and construction; resulting in little to no environmental impact.
- Key commissioning dates were reviewed

ISO-NE Update

- Mr. Ettori provided an ISO-NE update in the following areas:
 - Markets committee
 - Pay for performance was discussed. Essentially when a generation shortage results in dispatch between hours, 5 min interval data is required to ensure payment is appropriate for ramping units. Currently, meters are not capable of providing that granularity of interval data. The NE Metering Forum shall discuss this further.
 - Integration of Markets and Public Policy technical conference is being hosted by FERC on 5/1 & 5/2 for the region to discuss how to integrate Public Policy projects into the market.
 - A proposed Market Efficiency Transmission Upgrade project is not going to be completed as proposed in Maine.
 - Reliability planning highlights
 - Pausing all long-term planning studies due to
 - Forecasted loads are flat or decreasing
 - No new generator retirements in the latest Forward Capacity Market
 - Increase in the PV forecast for 2026

VELCO's Station Service Overview

- Mr. Ettori provided an overview of VELCO's station service needs and sources. In general, there are two options for station service. One from a DU side meter and one from a transmission source meter. When served from the transmission source, the station service is allocated to losses within VT and VELCO pays a use tax. When served from the DU source, station service is paid by VELCO and allocated as either PTF or Non-PTF. It is therefore more beneficial to VT rate payers to have station service normally provided by the DU source.
- A list of the remaining station service locations to be transferred to the DU side meters was reviewed and discussed amongst the group.

Other Business

- Proposed topics for the next meeting:
 - Utopus cut-over
 - NERC Reliability Committee meeting (Mr. Root is attending)
 - Independent project(s) review if any new movement
 - VELCO Board of Directors update
- Mr. Rossi requested information on becoming a member of the OC; Mr. Root will provide.

Open Discussion

Motion to adjourn

- Mr. Gibbons moved to adjourn, Mr. Couture seconded, and the meeting was adjourned at 1:59 pm.