Operating Committee MINUTES May 17, 2018, 11 a.m. – 3:00 p.m. GMP Montpelier, VT

PARTICIPATING MEMBERS

Mike Burke (Green Mountain Power), Ken Couture (Green Mountain Power), Frank Ettori (VELCO), Stephen Fitzhugh (VT Public Power Supply Authority/Northfield Electric), James Gibbons (Burlington Electric Department), David Kresock (Stowe Electric Department), Craig Myotte (VT Public Power Supply Authority/Morrisville Water and Light Department) by phone, Jason Pew (VELCO), Bill Powell (Washington Electric Cooperative), Chris Root (VELCO), Peter Rossi (Vermont Electric Cooperative).

Next Meeting June 21, 2018 11 a.m. – 3 p.m. GMP, Montpelier

1-866-720-4556 Code: 6027065

OTHER PARTICIPANTS

Lou Cecere (VELCO), Tom Dunn (VELCO), Abe Fitch (VELCO), Deena Frankel (VELCO) by phone, Dave Haas (VELCO) by phone, Colin Owyang (VELCO), and Hantz Présumé (VELCO).

OPENING REMARKS

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

Mr. Root introduced two VELCO employees that had been invited to participate in today's meeting. Abe Fitch, who joined the VELCO Team approximately three weeks ago as the Safety Manager, and Lou Cecere a VELCO Planning Engineer who has been with VELCO for approximately three years.

SAFETY TOPIC

Mr. Fitch discussed the summer season and various awareness items to consider in the coming months.

- Roadway construction and its associated hazards: slow down and be alert for moving equipment and roadway workers
- Tick season: always perform tick checks after working outdoors on a ROW or on your own property
- Poisonous plants: be aware of poison ivy and poison sumac when working outdoors

Be aware of these items for yourself. Discussing with others will increase everyone's summer preparedness.

Mr. Rossi offered a few cyber-security safety topics.

- Investing in a personal VPN is a way to secure internet browsing and maintain some privacy and protection from external threats
- Backing up files is common and necessary and can be done on a local hard drive or via a cloud storage service. If you decide to use cloud storage, be sure to choose one with 256bit encryption to secure your data and privacy.

MINUTES APPROVAL

Mr. Pew presented the meeting minutes from March 15, 2018.

Mr. Root moved for approval, Mr. Gibbons seconded and the minutes were approved as presented.

STAFFORD HILL SOLAR/BATTERY FACILITY

Mr. Couture provided a review of the Stafford Hill facility located in Rutland. The full presentation is provided as part of the meeting materials. Some highlights include the following.

The facility consists of 2.5MW of fixed solar (approximately 7000 individual panels) and 3.4 MWh of battery storage that consists of both lithium and lead batteries. The facility is used for load reduction and participates in the New England frequency regulation energy market.

Frequency market uses the lithium batteries as they are better suited for quick cycles of charge and discharge. Load reduction is primarily accomplished by the lead batteries as they are better suited for longer duration cycling.

In addition to the Stafford Hill facility, GMP is offering Tesla Powerwall 2.0 battery storage devices to GMP customers for purchase or a monthly fee. The intent is to have them serve as backup power during outages to benefit the customer and to allow GMP to discharge a portion of the available stored energy to reduce demand within VT to benefit all of the ratepayers.

GMP is further developing its battery capabilities with a project in Panton. The Panton project will consist of 4.9MW of solar and approximately 16 Commercial Tesla Powerpack units for over 3 MWH of storage, each unit has 200-220 kWH. The project is anticipated to be commercial on July 1st of this year.

VERMONT LONG-RANGE PLAN UPDATE

Mr. Cecere reviewed VELCO's Long-Range Transmission Plan (LRTP) presentation that has recently been shared at various public venues throughout VT. The full presentation is provided as part of the meeting materials. Some highlights include the following.

- The first 10 years of the study mirrors the 10 year study completed by ISO-NE
 - No peak load concerns on the bulk electric system (BES) that cannot be mitigated by tie-line adjustments or removed entirely by lower loads or the Rutland Area Reliability Plan
 - Subtransmission issues were identified and will be evaluated by the affected distribution utilities
- The second 10 years expands beyond the ISO-NE study
 - o Includes a 510 MW solar PV base forecast of installed capacity by 2025
 - Includes a high solar PV scenario modeling a significant increase in solar PV installation (1,000 MW installed capacity by 2025) throughout the state to align with the Solar Pathways study that assumed PV serves 20% of the state's energy needs
 - As solar was increased incrementally the Sheffield Highgate Export Interface (SHEI) which represents potential transmission overloads and voltage

- collapse in northern VT, had the potential to extend south almost to Rutland
- System losses increased by approximately 13MW for the base PV forecast and 50 MW for the high scenario
- Low voltage on the transmission system with high voltage on the subtransmission systems will require dynamic voltage support
- From a load serving perspective, there were no transmission concerns to be mitigated
- The plan includes an estimated optimal solar PV geographical distribution, solely based on existing transmission and subtransmission capacity, necessary to accommodate 1000 MW of PV without significant transmission concerns based on a number of somewhat optimistic assumptions

SHEFFIELD HIGHGATE EXPORT INTERFACE (SHEI) UPDATE

Mr. Cecere reported that collaborative work is progressing between the VT distribution utilities and VELCO on identifying a path forward to resolving or mitigating the current SHEI constraint.

ISO-NE UPDATE

Standing agenda item with no relevant topic to discuss.

MUTUAL AID AGREEMENT

Mr. Root reported that VELCO has a formal agreement in place with VEC for providing mutual aid. This is necessary for VEC to receive reimbursement from FEMA for work completed for VEC by VELCO employees.

Mr. Owyang reported that this same agreement is available for each of the VT municipal and Cooperative utilities at their option. If any of them desires to have that agreement in place, he would provide it if requested.

BOSTON DISTURBANCE

Mr. Root presented a report on an event that occurred in the Boston area. The report contains Critical Energy Infrastructure Information (CEII) and can be accessed only subject to a non-disclosure agreement.

ROGER HILL WEATHER CONTRACT

Mr. Haas discussed the Weathering Heights contract that requires a renewal in July. This is a two year contract and, due to the amount, needs to be approved by the VELCO Challenge Board. He wanted to get consensus from the Operating Committee prior to taking it to the Challenge Board that this was a necessary expense.

No objections to the proposed two-year contract renewal were expressed.

Mr. Haas will continue to pursue the contract renewal with support from the VELCO Operating Committee at the next Challenge Board.

VELCO BOARD OF DIRECTORS UPDATE

Mr. Root reported on the latest progress that has been made with Utopus Insights (UI). UI continues to work toward agreed upon items in the Joint Development Agreement (JDA).

Mr. Dunn reported that there is still opportunity to benefit financially in support of the UI product development and work on the JDA continues. He provided additional detail as to the group on how that would be achieved.

VELCO 2018/19 BUDGET

Mr. Root reported that VELCO is kicking off the next budget cycle shortly. If any Distribution Utilities have projects which will have a VELCO component or request any work to be done on their behalf in/on a facility, a short description needs to be sent to Patty Smith of VELCO to be put in the VELCO budget.

OTHER BUSINESS

Next meeting

- Mr. Couture to provide a brief presentation on distracted driving (safety 10-minutes)
- Opportunities to assist with UI product development
- Board of directors update
- Environmental "rare and endangered plant" identification and protection
- Coolidge solar project
- Grey Jacket installation progress

Open Discussion

Mr. Root discussed large LNG fueled generators within New England and their desire
to shut down. The New England grid relies on the diversified fuel source of the large
units. To keep them within the NE Energy Market, there is a proposal to subsidize
those units. However, this proposal would require a waiver from FERC as it is
currently not in the ISO-NE tariff and potentially opens the door to unwanted
retirements and subsequent subsidizes.

MOTION TO ADJOURN

Mr. Root moved to adjourn, Mr. Gibbons seconded, and the meeting was adjourned at 2:25pm.

Respectfully submitted,

Jason Pew VELCO Operating Committee Secretary