VELCO Operating Committee MINUTES

January 15, 2015, 11 a.m. – 3 p.m. GMP Office, Montpelier

Participating members: Ellen Burt (Town of Stowe Electric Department), Ken Couture (Green Mountain Power), Frank Ettori (VELCO), Ken Mason (Vermont Public Power Supply Authority), Ken Nolan (Burlington Electric Department), Kevin Perry (Vermont Electric Cooperative), Bill Powell (Washington Electric Cooperative), Chris Root (VELCO, Chair), Jeff Wright (Vermont Electric Cooperative).

Other participants: Brian Connaughton by phone (VELCO), Mary Coombs, Tom Dunn (VELCO), Aurelie Eybalin (PwC Consultant to VELCO), Kerrick Johnson (VELCO), Mike Loucy (VELCO), Shana Louiselle (VELCO), Hantz Presume (VELCO).

Next Meeting
February 19, 2015
11 a.m. to 3 p.m.
GMP Office, Montpelier

Opening

• Mr. Root opened the Operating Committee (OC) meeting at 11:00 a.m.

Safety Topic

 Mr. Root presented a safety topic concerning the hazards associated with the potential release of snow loads from elevated locations like roof tops, trees, etc. Consideration should be given to walkways, parking areas, etc.

Minutes Approval

• Mr. Couture moved and Mr. Wright seconded approval of the November OC minutes as posted. The minutes were approved without objection.

Pentachlorophenol Issues Update

- Mr. Connaughton provided an update to the OC concerning Pentachlorophenol wood preservative.
- Mr. Connaughton discussed that the final sampling was completed adjacent to a structure in Monkton
 and the levels of Pentachlorophenol identified are consistent with published concentrations. VELCO will
 propose to the Vermont Agency of Natural Resources (ANR) that given the low levels in the soil that no
 further action is required and to close the case. He stated that VELCO's next step is to finalize the findings
 report and request a meeting with the ANR to discuss the results and the proposal.
- Mr. Connaughton stated that Mr. Follensbee of VELCO's Environmental Department attended the initial Pentachlorophenol Working Group meeting. He summarized that the Working Group agreed to move forward with developing a Best Management Practices Plan (BMP) around inspections, sampling practices, etc. The meetings will initially be scheduled to be held on a monthly basis.
- Mr. Dunn asked the OC if any of the Distribution Utilities (DU) have experienced a similar issue on distribution/subtransmission structures. No DU reported having experience with any Pentachlorophenol releases to the environment.

ISO-NE Update

- Mr. Ettori presented the materials provided to the OC.
- Mr. Root asked if ISO-NE is surprised with the low gas market prices. Mr. Ettori responded that he has had
 discussions with representatives from the markets committee and they are surmising that the low world
 prices for liquefied Natural Gas (LNG) is creating a situation where LNG deliveries to Boston and Canaport
 are relieving some of the constraints on the gas pipeline from the West. This may be playing a part in
 keeping the market prices lowered.
- Mr. Ettori discussed that at a recent capacity auction, a proposal was presented to eliminate the Peak Energy Rent (PER) as a means of balancing out capacity market payments.

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• Mr. Ettori provided an update on the recent Hydra Quebec curtailment and to apprise the Highgate Converter owners that an approximate \$700,000 deviation was realized. The deviation occurred when a disparity between how the day-ahead and real-time market cleared. Because the VJO contracts were cut real time, the VJO had to buyback energy at the real-time prices.

Power Accounting Update

- Mr. Ettori presented the materials provided to the OC concerning the Bridge Energy Group (BEG) contract, ongoing work and transition plans.
- Mr. Ettori discussed VELCO's strategy for continuing to move forward with ARC Business Solutions, Inc. (ARC) in a transition away from BEG.
- Mr. Nolan asked if VELCO has received an estimate from ARC to take over the Power Accounting Software (PAS) from BEG and make the necessary updates to the software. Mr. Ettori responded that ARC has estimated, depending on the services for which they are contracted, the price will range from \$150,000 to \$450,000. The large range will depend on how willing Bridge Energy Group is willing to assist in the transition.
- Mr. Couture discussed that given the state of the software system, VELCO should take a look at any viable market option and incorporate a business case analysis before assuming that upgrading the existing PAS is the best resolution. Mr. Johnson responded that part of ARC's scope of work was to incorporate a market study of possible solutions to support the needs of Power Accounting. He stated ARC specifically evaluated what the existing PAS is designed to do, Vermont utility needs, what is available in the market to possibly meet the needs, costs, etc. ARC's recommendation is to utilize the existing PAS by updating the hardware and updating and fixing the software to meet the needs.
- Mr. Mason asked if VELCO had an estimate to purchase and operate hardware necessary to replace the
 existing hardware owned by Bridge Energy Group (BEG). Mr. Nelson responded that the structure will
 likely be a virtual machine environment that will only require licensing to run on existing hardware at
 VELCO. He approximated the licensing costs to be less than twenty thousand dollars.
- Mr. Ettori committed to continuing to provide updates to the VELCO-DU Metering Group and the OC.

ISO-NE Paperwork for PV Installations Greater Than 1 Megawatt

- Mr. Presume presented the materials provided to the OC.
- Mr. Root discussed that the increased number of Photovoltaics (PV) installations in Vermont is potentially
 having a detrimental impact on VELCO's long term planning model accuracy. He asked that the DU's
 continue to provide the site specific data from installations on their systems to keep the records as
 complete as possible.

Connecticut River Valley Chelsea Substation Upgrades

- Mr. Root provided an overview of the project and introduced Ms. Eybalin.
- Ms. Eybalin presented the materials provide to the OC.
- Mr. Couture asked what the driver was for the Chelsea project. Mr. Dunn responded this project has been in development since 2009 and is driven by ISO-NE load studies. Mr. Presume also discussed that by reconfiguring the Chelsea substation to a ring bus, it'll improve reliability by providing the ability to sectionalize the system in this area.

Transmission Station Service

- Mr. Ettori presented the materials provided to the OC.
- Mr. Ettori asked the OC members present if it would be helpful for VELCO to establish meetings with their respective DU metering departments to discuss the metering for service delivery at substations. It was agreed that this is the most appropriate next step.

Telecommunications

a. Fiber Project Status

Mr. Nelson presented the materials provided to the OC with no discussion ensuing.

b. Statewide Radio Project

- Mr. Nelson presented the materials provided to the OC.
- Mr. Wright asked if the propagation maps are field developed. Mr. Nelson responded that the
 maps representations are the result of computer modeling only but that the parameters have
 been set at a conservative level. The intent is to indicate what the expected minimum coverage
 area will be with the proposed additional sites.
- Mr. Couture asked if VELCO has any metrics around call success/failure rates during the
 December 2014 storm. Mr. Nelson responded yes and discussed the call performance
 spreadsheet that was provided within the presentation. The spreadsheet specifically captures
 these specific metrics.
- Mr. Wright asked if VELCO was able to make real time changes during the December storm to
 assist with system operational challenges. Mr. Nelson responded that VELCO, once aware of the
 call challenges, immediately executed on making changes to the sites burdened the heaviest.
 Mr. Johnson asked if the call volume remained consistent after the changes were made. Mr.
 Nelson responded they were consistent for another couple of days but the system changes
 dramatically improved the number of successful calls over this period.
- Mr. Mason asked how VELCO plans to continue to reach out to the smaller utilities to lend radio system support as many of these utilities do not have telecommunication experts on staff. Mr. Nelson responded that VELCO participates in the MEAV group and will solicit feedback from utilities using the radio system. Mr. Mason offered to follow up with the VPPSA members and inform Mr. Nelson of any other feedback.
- Mr. Nelson offered, which was accepted, to develop a new subcommittee to continue
 discussions around the radio system. The focus will be similar but different enough to possibly
 include other operational resources beyond telecommunication departments. Some of the initial
 topics may include: performance needs, potential growth, storm operation, trouble resolution
 protocols, etc. He will propose the membership and present to OC.
- Mr. Wright commented that despite recent service challenges during the December storm, the system today is offering VEC an improvement over their previous system.

Vermont Weather Analytics Center

- Ms. Coombs presented the materials provided to the OC.
- Mr. Mason asked if the weather data will be accessible in the future using a web based system or other
 method. Mr. Johnson responded that one of the goals is to provide web access for the DU's. He further
 discussed that as VELCO will own the software, a real time understanding with improved granularity of
 Vermont's weather will enhance the integration of renewables. This information will ultimately be web
 based as well and the plan is to provide access to the DU's.
- Ms. Coombs mentioned VELCO has ongoing discussions with Vermont Department of Transportation, University of Vermont, ISO-NE, Lyndon State and others to continue to obtain data, share information, lessons learned and potential collective benefits of better weather information.
- Mr. Nolan requested that the invite for both the weekly Demand and Renewable sub-team meetings be forwarded to the OC. Ms. Coombs stated she would distribute the invites to the OC members.

VELCO December 4, 2014 Board of Directors' Update

 Mr. Root provided a summary of the December VELCO Board of Directors' Update to the OC. Of particular note were that VELCO met its 2014 operational budget, is engaged with the state planning commission on long range transmission planning efforts and the weather analytics project.

Other Business

- Mr. Root solicited input on the proposed 2015 calendar. The OC agreed with the proposed schedule.
- Mr. Mason asked if VELCO can evaluate ways to improve the efficiency of the Emergency Preparedness conference calls to better integrate smaller utilities. Mr. Root agreed to take the request back to VELCO

and solicit ideas on how best to approach including potentially reaching out to the Department of Public Service, MEAV.

Proposed agenda items

- TDI Update Filing, hearing schedule, drivers, etc.
- Power Accounting System Update progress with BEG/ARC transition
- Development of radio system subcommittee focused on operational challenges charter, membership composition
- State Planning Commission Update

Motion to adjourn

• Mr. Mason moved and Ms. Burt seconded adjournment, which was agreed without objection at 2:32 p.m.