

VELCO Operating Committee Meeting Minutes

Thursday, August 20, 2009

11:00 a.m.

Location: VELCO

Committee Members present: Jeff Wright (VEC), Ken Nolan (BED), Don Rendall (GMP), Ken Mason (LED), Ed Ryan (CVPS), Ellen Burt (SED) (On the phone), Neal Robinson, Ernie Hiatt and Kerrick Johnson (VELCO).

Other present: Frank Etori, , Wayne Mackenzie, and Thad Omand

I. Minutes of Meeting from the July 16, 2009 meeting

The minutes were approved as drafted.

II. IGAP Guidelines

The IGAP Basic Principals were discussed. Ed Ryan suggested the IGAP principals to include language about the 50% before and after 7/1/1990. The group agreed on the following addition:

“If the unit qualifies for IGAP credit, the credit shall equal 50%.”

With that addition, the group voted unanimously to approve the IGAP basic principles.

III. VTA resettlement process

Thad Omand discussed the desire of the group to put a timeframe when a resettlement should occur. He gave an example of a utility that wanted to submit resettlement for 3 years ago. Don suggested that a utility could always go to FERC since there isn't a statute of limitations for this and we should create a guideline that we should all agree with. There are a lot of different scenarios that could result in a settlement error. The ISO-NE only allows for resettlement for 90 days. The result of the discussion was that Thad Omand would develop a draft procedure that would be, approved by the Operating Committee, and eventually used by the Power Accounting Department for resettlement purposes. The content of the procedure will look something like the following:

VELCO will allow resettlement for going back one year and if a utility wants to go back further they have the opportunity to bring it to the Operating Committee for resolution. If they still are not pleased with the outcome they have the opportunity to go to FERC.

IV. Settlement Subcommittee for Distributed Renewable Generation-Thad Omand

Thad Omand gave an update on the small renewable project and items VELCO has been requested to perform. This program is for any generator lower than 2.2 MW. They are expecting to get as much as 50MW in this program. This subcommittee was put together to determine how settlement would occur with these generators. The proposal is to add the generation into the local utilities load and then aggregate the generation output to all VDU's. WEC has decided to opt out of this program. This program may go down to 1 kW generators. The group suggested that the costs for this process be captured and the group is uncertain if this is a VELCO responsibility to be reading meters. There are certain parts of this effort that will have to be conducted by

VELCO, since VELCO is the only entity who has all the load and generation data for disaggregation.

V. Lyndonville Substation

Ken Mason gave an update on the Lyndonville project. He reviewed the cost estimate, schedule, one-line diagram.

VI. VEC outage

Wayne MacKenzie gave an update on the VEC outage that was delayed due to the failover of the Newport RTU. He reviewed the incident, the SCADA configuration, the manual intervention of the protocol converter, and for the last 4 months they have been working out the issues with the new SCADA system. The new Protocol control points will be installed by the end of this week and the automated process will be completed by the end of next week. This process will allow for failover of the RTUs like the old ABB system.

VII. VSPC evaluation

Deena Frankel gave an update of the evaluation of the Docket 7081 process. There were some items that were resolved by the Operating Committee that were helpful in streamlining the VSPC process. The VSPC has a 6 month window to develop recommendations for the VSPC process and provide it to the PSB by December, 2009. The current state is the VSPC feels like the members are not entirely meeting their expectations. Therefore, this evaluation process is critical for feeding in to the VSPC. Some of the comments surrounding the feedback are as follows:

How the process can be simplified, expedited, and streamlined to make this process much easier. The current process is cumbersome and bureaucratic. We need to determine how we can eliminate steps and eliminate the time commitment associated with this effort. Not certain we are getting the best bang for our buck. Is the design correct, and is the implementation correct. There is a lot of dialog at the VSPC meetings where they spend a lot more time on subjects where it really isn't necessary. People must get paid by the word. It seems like it has turned in to a policy discussion. Deana would like for the Operating Committee members to go back to their respective companies to make sure these opinions are represented in the VSPC process.

VIII. VELCO state-wide load forecasts and load data

The group suggested that VELCO post a load forecast and the actual loads on VELCO's web site. Frank volunteered to determine how we can get this data posted on the web site.

IX. New England Transmission Consortium

Ken Nolan indicated he has been requested to provide wind generation for the NU Transmission Consortium proposal. Kerrick gave a presentation on the pros and cons associated with the NU consortium project.

Respectfully submitted,

Frank Etori

VELCO Operating Committee Meeting Minutes

Thursday, October 15, 2009

11:00 a.m.

Location: VPPSA

Committee Members present: Kevin Perry (VEC), Ken Nolan (BED), Don Rendall "on the phone" (GMP), Ken Mason (LED), Greg White (CVPS), Pat Householder (SED), Neal Robinson, and Frank Etori (VELCO).

Other present: Thad Omand, Deana Frankel

- I. **Minutes of Meeting from the August 20, 2009 meeting**
The minutes were approved as drafted.
- II. **Administration**
Neal Robinson indicated that Frank Etori is now a full time member on the Operating Committee. Ernie Hiatt is no longer involved in the Committee and Frank is replacing him.
- III. **340 line structure issue**
Frank Etori gave a presentation on the recent 340 line structure failure that occurred recently and the effort necessary to repair the structure. The structure was hit by lightning and the line was taken out of service on a planned basis before the structure failed. There was some discussion as to what the system impacts were on taking the 345 kV line out of service. Frank indicated that because the loads were light the system was dispatched accordingly to allow us to take the line out of service. Greg White commented that if the line tripped under peak load conditions it would be quite likely that CVPS would be shedding load in the Central Vermont area. He also indicated that the reliance on the 340 line is exactly why the new Coolidge Connector project is being built.
- IV. **Emergency Preparedness meeting**
Frank Etori gave a presentation on the September 25th emergency preparedness meeting. He indicated that the meeting was well represented by most Vermont utilities, Comcast, and the DPS.
- V. **Vermont Operators Forum**
Frank Etori presented an update on the August 18th Vermont Operators Forum meeting. The meeting was well represented by most utilities. Frank indicated that the meeting had good dialog and discussed a large range of operational issues from under frequency load shedding, Control center integration, operating procedures, and switching and tagging rules.
- VI. **Recent BED outage**
Frank Etori gave a presentation on the VELCO E. Avenue transformer differential operation that occurred a couple weeks ago. The originating incident occurred when a BED switchman connected personnel protective grounds to an energized 13.8 kV transmission line. Frank discussed the ground fault caused the E. Avenue Basler

transformer differential to operate on circulating ground current. The reason the circulating ground current occurred was the CT inputs for the future breaker were connected in to the differential scheme.

- VII. VELCO state-wide load forecasts and load data**
The group discussed the suggesting that VELCO post a load forecast and actual loads on VELCO's web site. Frank provided a recommendation that VELCO could provide a forecast based on the last three years real time data. Ken Nolan provided a link to the www.cvx.com webpage that showed CONVEX load and forecast. In the end, Frank indicated that VELCO could provide similar data to CONVEX in that we would provide real time data and a forecast based on a percentage of ISO-NE's load forecast. The group agreed that was the best approach.
- VIII. Input on VSPC Evaluation**
Deana Frankel discussed the requirement that the VSPC needs to provide a list of recommendations to the PSB by the end of this year. The discussion revolved around the process is working but it should be streamlined. The group doesn't have a desire to start over, the current system works but needs to be streamlined.
- IX. VTA Re-Settlement**
Thad Omand handed out a letter from himself to Neal Robinson regarding the VELCO VTA resettlement process. The base of the discussion and memo was that VELCO would have a resettlement process of up to 1 year. If the error is greater than 1 year the DU will incorporate the error in their rate case. There was a lot of discussion for the smaller utilities having a greater issue with ensuring their bills are accurate. There may be some desire to have a threshold for dollars, and an increase in time greater than 1 year, or maybe even a percentage of total bill. Neal and Thad will work with VELCO legal to develop a different recommendation for this issue. Don Rendall suggested that VELCO provide a half day meeting for how to read your VELCO bill. Neal will bring that to the next CFO forum meeting.
- X. B22 Update**
Thad indicated that with the Stowe substation going in service this week and next, the billing for the Morrisville B22 needs to have an adjusted loss factor. Thad proposed that they create a fictitious meter reading and use that meter to perform a reconciliation of the historical loss issue. Thad is trying to receive approval for this methodology. He has received approval from Stowe, Hardwick, and Morrisville. He needs concurrence from GMP and CVPS.
- XI. MV90 Update**
Thad Omand gave an update on the VELCO MV90 implementation. Within the next few weeks we will be using MV90 to read all of our meters that we have that available to us. For example, we do not have MV90 connectivity to the Newport and Plattsburgh meters.
- XII. Other Business**

Neal asked if the frequency is appropriate for these meetings. The group indicated that the frequency is appropriate and we should keep the meetings as scheduled. If we find that on occasion we don't need meet we can cancel meetings as appropriate.

Respectfully submitted,

Frank Etori

VELCO Operating Committee Meeting Minutes

As Revised on February 18, 2010

Thursday, January 21, 2010

11:00 a.m.

Location: Green Mountain Power

Committee Members present: Jeff Wright (VEC), Ken Nolan (BED), Ken Couture (GMP), Don Rendall (GMP), Ken Mason (LED), Greg White (CVPS), Ellen Burt (SED), Neal Robinson, and Frank Etori (VELCO).

Others present: Thad Omand, Michelle Nelson, Tamara Strauss

- I. **Minutes from the October 15, 2009 and December 1, 2009 meeting**
The minutes were approved as drafted.
- II. **Composition of Operating Committee for 2010**
Neal Robinson welcomed Ken Couture as the new Green Mountain Power member of the Operating Committee and thanked Don Rendall for his participation and contribution to the Committee. Neal Robinson also handed out a document titled Percentage Ownership of Vt Transco in dollars and discussed the composition of the Operating Committee. Neal mentioned that the current VELCO representatives are Neal, Frank, and Kerrick. Do to other commitments; Kerrick is generally not available to attend. Neal suggested that with Don Rendall leaving it may make sense for VELCO to have legal representation on the group. Don Rendall and Ken Mason agreed that approach was prudent. Neal will work with Leslie Cadwell to determine who from the legal team will be selected.
- III. **Election of Vice Chairman**
Ken Mason volunteered to serve and by unanimous vote he was elected Vice Chair of the Operating Committee.
- IV. **Substation Participation Agreement & Stowe substation**
Discussion on the Substation Participation agreement and how it is has been utilized at Stowe, E. Avenue, and Newfane. The primary discussion was on the ownership and classification of the facilities at the Stowe substation. Frank Etori drew on the dry erase board the operational one-line diagram that VELCO Operations had created based on their understanding of the ownership. Don Rendall read a section out of the Lamoille County settlement agreement that indicated that Stowe would be responsible for all exclusive facility payments. In the end, it was determined that VELCO needs to review all documentation regarding the Lamoille County Project CPG, the Lamoille county settlement agreement, and the accounting forecast for Stowe cost allocation.

There was also considerable discussion on how SED should be treated for the back-up feed from the 3319 line. Ellen Burt expressed the desire that install the additional conduit based on Bernard Machia's testimony. Ellen also indicated that the costs for those installations should not be SED costs because SED's costs are capped based the LCS agreement. Frank Etori indicated that if the PSB would approve leaving the 139-

50 switch there, that would be the most reliable and least expensive option because it would allow VELCO to perform maintenance on the 34.5 kV bus section without taking an outage of the Village of Stowe. No decision was made on this subject, however the options for Stowe going forward are to: 1) consider utilizing the 139-50 switch; 2) install a new conduit; or 3) have a spare underground cable on hand.

Neal suggested that the VELCO plant accounting people need to go back and determine the costs for each VDU for the Stowe substation.

Currently the SPA document has a section to fill out a term for the agreement. VELCO legal review is unclear why there is a term associated with the agreement. The recommendation is to have a common understanding that the term isn't really utilized as opposed to a major modification to the FERC filed document. The group agreed that was sufficient and that we should use a 30 year term in the SPA.

V. Operating Agreement

Neal discussed the wording in the Operating Agreement as it pertains to determining Load Ratio Share which is the basis on which Transco makes investment opportunities available to Vermont distribution utilities. The Operating Agreement calls for the adjusting of load to "reflect current levels of operations...". VELCO has historically used a three year average to adjust load in determining Load Ratio Share. He suggested a 3 or 4 year averaging for this and asked the members to go back to their respective organizations and provide responses to the Committee.

VI. Under Frequency Load Shedding

Frank discussed that currently every year ISO-NE performs an under frequency load shedding audit and VELCO aggregates those loads and submits to ISO-NE. He also indicated that NPCC is going to be modifying the load shedding thresholds and most of the VDU's will need to modify their UFLS relays and plans. Frank suggested that the VDU's report their values directly to ISO-NE. The group was fine with that approach. The group also asked that Frank discuss this issue with the Vermont Operators Forum. Frank said he had already discussed the issue with them and they didn't have any issue with the change.

VII. Opening the B22

Frank informed the group that Morrisville has a desire to open the B22 to avoid wheeling payments and VELCO is studying this to inform them of the affects. The group does not think opening this line is a good idea.

Respectfully submitted,

Frank Etori

VELCO Operating Committee Meeting Minutes

Thursday, April 15, 2010

11:30 a.m.

Location: VELCO

Committee Members present: Ken Nolan (BED), Jeff Wright (VEC), Ken Couture (GMP), Ken Mason (LED), Greg White (CVPS), Neal Robinson, Kerrick Johnson (VELCO) and Frank Etori (VELCO).

Others present: Thad Omand, Michelle Nelson and Chris Dutton

- I. **Generation studies outcome of previous board meeting**
Kerrick Johnson discussed the outcome of the VELCO board of directors meeting and the desire to have the Operating Committee become the forum for discussion on the interconnection with generation facilities. The group was amenable with being the forum to discuss the generation dispatch.
- II. **B22 loss issues**
Greg White discussed the losses across the Johnson B22 and the desire for VELCO to conduct a loss study for the 34.5 kV Northern loop. The group agreed that VELCO should contract to have a loss study completed to identify potential solutions for reducing the losses across the B22. The cost estimate for this study is approximately \$25-50K. The group agreed to allow VELCO to create a billable work order and charge all VELCO participants for this work. The members of the B22 loss group will work together to develop a scope of work to allow VELCO to have a study completed.
- III. **Revised Substation Participation Agreement**
Neal Robinson discussed the revised Substation Participation Agreement. Ken Mason discussed the affects of the new SPA on the Lyndonville substation project. The group unanimously approved the revised Substation Participation Agreement.
- IV. **Irasburg SPA**
Because a SPA with Barton and Orleans was never established and billed, the result is that the VTA costs weren't allocated properly. Neal suggested that VELCO refund VEC and CVPS for the overcharges they incurred during the 2004 to 2008 time period. Jeff Wright and Greg White agreed to forgo their refund with the expectation that this group would develop a procedure to ensure that we handle this type of situation uniformly in the future.
- V. **Agree on basis for load ratio share**
Neal discussed the proposed changes for the use of the PDP without IGAP for load ratio share determination. The number of years that are averaged was of some concern. Neal agreed to provide the committee members with data representing PDP without IGAP adjustment. The group agreed to take the issue back and have a conference call if necessary to vote on this issue.
- VI. **Telecomm working group**

Jeff Wright mentioned a desire to have a radio/fiber committee that could discuss the issues with the new expansion as well as ongoing telecomm issues. The group agreed that it made sense

VII. Other Business

The next meeting is scheduled for May 20th at VEC.

Respectfully submitted,

Frank Etori

Minutes of July 15, 2010, VELCO Operating Committee Meeting

I.) Site-Visit-Lyndonville 115 kV Substation

The Operating Committee meet at the new VELCO/Lyndonville 115 kV substation for a site visit starting at 11 am. The site visit began with an explanation of VELCO safety rules and then a brief explanation of the project. The committee ventured to an area near the new controls building and then a more detailed explanation of the project was given by Patrick Firliet, VELCO Site Manager, and Ken Mason, LED Manager. The committee members asked a number of questions and seemed quite impressed with what was going on. Patrick explained that about 1000 yards of concrete was going to be poured and about 875 yards had been poured to date. Ken explained the 34.5 kV relocation work that was being done by LED linemen that was going on as they watched and how the new sub will tie in with LED's existing four 34.5 kV distribution subs. Patrick pointed out the new VELCO 115 kV structures north of the sub and mentioned the two 115' tall poles in particular. There was some discussion about how the new sub will tie in with the existing Higgins Hill sub and how. Greg White, CVPS, joined in the conversation and gave information relating to the substation interconnect via the existing 34.5 kV overhead line from CVPS's perspective. Tim McGuire, Burke Mt. Ski Area Manager, joined the group for the site visit. The site visit lasted about 50 minutes and then everyone headed for the New Base Lodge at Burke Mountain for the balance of the meeting.

II.) Minutes of prior meetings : Meeting called to order by Vice Chairman Ken Mason at 12:30 pm

Motion made by Greg White and seconded by Ken Nolan to approve the minutes from the May 20, 2010, meeting at VEC and the May 21, 2010, phone conference.

No discussion. Approved

III.) Status of CFO Forum discussion of Load Ratio Share

Ken Mason led the discussion of with an explanation of the process that the Load Ratio Share discussion had gone through over the past month or so and in particular, the process taken by the CFO's in developing the Hybrid alternative. He handed out the spread sheet that showed the comparisons between the PDP, Network Load and the Hybrid and spent a little time going it with the group and a group discussion ensued. Most to the Committee members mentioned that they had a chance to speak with their respective CFO's and that their respective organizations supported the Hybrid alternative. Mason had also attached to the spread sheet several e-mails that he had received relating to the Hybrid. One was from Dawn, GMP, one from Michele, VELCO, one from Pat, Stowe, and one from Crystal, VPPSA.

The discussion then shifted to the e-mail received from Stowe and its contents. It appears that because of a B-22 settlement reached a couple of years ago and one that ran for 18 months and subsequently ended June 2010, that load had been shifted as part of the settlement and that it will result in a Transco Equity imbalance as the result for as long as any part of the 18 month settlement remains in the 24 month average from Transco. The benefitting utilities will be CVPS and GMP and the non-benefitting will be Morrisville, Hardwick and Stowe. The effect of the adjustment will be felt initially for the 2010 equity issue and carry onto 2011 and 2012 if equity is also issued during those years. Although the amount of

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dollars are relatively small based on the 2010 equity amount, if the equity issued in succeeding years increase dramatically, then the dollars lost could increase proportionately.

It was pointed out that the CFO phone conference held the day before this meeting to address this concern resulted in the CFO's agreeing that the Load Ratio Share should remain simply based on the formula agreed to earlier and not address single issues such as this. Stowe mentioned that they were on the phone conference and that the phone conversation resulted in the five distribution utilities saying that they were going to get together and try and work something out. The committee took no action and voiced their full support to the CFO's to do a good job and wrap this up.

IV.) Source document for determination of IGAP credit

Thad, VELCO, handed out materials and led off the discussion.

1. Discussed which document to use in the future for the value of each generator receiving IGAP credit. The report previously used was eliminated with the implementation of the Forward Capacity Market. The seasonal claimed capability report has been modified to represent the five year average summer and winter peaks for the generator. The committee discussed using the forward capacity obligation or the revised SCC reports. The committee requested VELCO provide options for the committee to review and resolve at the next meeting.
2. The IGAP criterion was distributed with a brief discussion of the Kingdom Community Winds location. VELCO reminded everyone that proposed generation should be reviewed in light of the location and some zones have generation in excess of local load.

V.) Load data during recent heat wave

Thad, VELCO, handed out materials and led off the discussion.

1. The graph showing the past week system usage was reviewed. The peak value of 1063 MWH on Thursday July 8 was noted. It was mentioned that early on the 8th a DU had contacted VELCO to discuss their belief that a potential VELCO peak would occur that day. Because the DU was relying on preliminary load files that were provided as part of the ISO settlement process to develop the statewide load forecast, and those files were therefore 7-days old, the DU called seeking advice with regard to VELCO's expectation of real-time loads. VELCO informed the DU that it was not forecasting a new peak. The DU chooses not to run their demand response units as a result of VELCO's answer. The peak did occur and several thousand dollars of savings were missed. The DU informed the committee that it believed access to more real-time load information, such as inclusion of a table with actual load data on the VELCO website, would have allowed it to make a better decision. Several committee members added their belief that as the smart grid deployment is completed, the dynamic rates are implemented and access to real-time statewide data will become more important. The committee requested that VELCO change

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its forecasting website to include a table showing values for both the actual and forecasted amounts for the operating day.

VI.) Highgate convertor update

Thad, VELCO handed out a copy of the Highgate Budget and a lively discussion ensued.

1. The current budget for Highgate was reviewed. Two small changes of adding the battery upgrade and moving the valve spare parts to O&M were noted. The committee noted the 50% increase to the controls system upgrade estimate in a six week timeframe after some distribution utilities had finalized numbers was very frustrating. VELCO noted the final numbers will not be known until the RFP is completed near the end of 2010. The committee requested what VELCO provide the grade of the current estimate.

VII.) Bellows Falls transformer

1. VELCO reported on the Bellows Falls substation outage. It was originally thought that the transformer VELCO had sold to National Grid in April of 2010 had failed which would have pushed the liability of replacement to National Grid and saved VELCO and its owners over a \$1 million. However, after further review it was confirmed that the cause was actually caused by the catastrophic failure of a 46 kV breaker. Both transformers in the substation, including the one VELCO sold to Grid, were reenergized successfully after repairs were made.

VIII.) Other Business

1. VELCO mentioned a metering and settlement forum will be formed to create transparency in the processes and iron out any issues. The process is meant to coincide with the new power accounting tool being built.
2. VELCO pointed out several substations are coming online in the near future. VELCO is organizing to insure the metering, billing, and unit costing will be transparent and timely.
3. CVPS noted they are currently leaning toward signing a traditional substation participation agreement for the Newfane substation.
4. CVPS provided an update on the Fiber project. A meeting is planned in the near future to iron out differences. Most DUs are opposed to the current plan. The outstanding issues revolve around ownership, ISO funding, transfer of assets, and service level.

Attended meeting: Ken Nolan, Ken Couture, Pat Householder, Greg White, Dave Mullett, Thad Omand, Ken Mason

VELCO Operating Committee Final Meeting Minutes

Thursday, October 21, 2010

11:00 a.m.

Location: Green Mountain Power

Committee Members present: Ken Nolan (BED), Ken Couture (GMP), Ken Mason (VPPSA-Lyndonville-Vice Chair), Crag Myotte (VPPSA-Morrisville) Greg White (CVPS), Pat Householder (Stowe), Tom Dunn (VELCO-Chair), and Thad Omand (VELCO).

Others present: Allen Stamp (VELCO), Hantz Presume (VELCO)

I. Opening Remarks

- Tom Dunn informed the group that Neal Robinson had left VELCO for a position with St. Michael's College. Tom has been asked by Mr. Dutton to assume the responsibilities of Chairman of the Operating Committee.
- Committee members asked for an update on ISO New England VT/NH studies.

II. Minutes of September 10, 2010 meeting

- Under motion duly made and seconded, the minutes as amended of the September 20th meeting were approved as submitted.

III. Update on B-22 study-Hantz Presume

- Mr. Presume presented the results of VELCO's study of the B-22 (see attached). There were several questions about the factors that impact the flows on B-22. Mr. Presume noted that Highgate converter flows have the largest impact on B-22. Mr. White asked about the total losses on the 34.5 kV sub transmission system from East Fairfax through Johnson. Mr. Presume noted the impact on reliability of opening the B-22; several contingencies cause reliability problems on the 34.5 kV sub transmission system in northern Vermont. Mr. White noted that since most of the losses occur during high system loads which are the periods when the B-22 provides most of the reliability benefits, it is unlikely that there would be significant loss savings by opening the B-22 during low load periods.
- Mr. Omand presented an example of how losses are metered, calculated, and monetized. Mr. Myotte expressed a concern that Morrisville had not expected to incur losses with the new connection at the VELCO Stowe substation. Mr. White expressed his concern that CV is paying for all of the losses that are occurring. Mr. Omand will provide the cost of these losses to the group and the distribution of these costs among the affected DU's. Mr. Omand informed the group that the cost of these losses year to date through October 2010 is approximately \$100,000. There was a discussion on how to resolve the cost responsibility for these losses and the operational consequences of opening of the B-22. It was suggested that the affected DUs negotiate a mutually acceptable operational and financial solution. Mr. Myotte agreed to organize a meeting of the affected utilities. This issue will be revisited at the next OC.

- IV. Telcom Operating Committee (review of Charter)**
- Mr. Stamp presented the Charter for the Telcom Sub-Committee (see attached). Dan Nelson will represent VELCO. Each DU will provide Mr. Stamp with members for the Sub-Committee. The Sub-Committee will provide a report at every OC meeting.
- V. Fiber Project Status (Including cost allocation)- Greg White**
- Mr. White provided a status on the fiber project. Make-ready work is underway in Rutland area. Engineering is complete for over 400 miles of line. Mr. Couture asked for information about the prioritization of the fiber project. Mr. Stamp indicated that this information would be provided.
 - Mr. Stamp reviewed a memo on cost allocation for the equipment to light the new fiber (see attached). Mr. White elaborated on the various options under consideration and noted that some options might require modifications to existing tariffs. Mr. Nolan expressed a concern about treating costs associated with the electronics at DU substations or lower voltage facilities (i.e., <115kV) as "common costs". The OC agreed to continue discussions around the best way to rationalize the lighting costs as the system design matures. Mr. White further suggested that the Telcom Sub-Committee present the OC with system design information which may inform the discussions at the OC about resolving cost allocation questions. Consensus was to keep the cost allocation items at the OC and that the Telecom Sub-Committee will focus on design and operational items.
- VI. VTA PDP load credits-Thad Omand**
- Mr. Omand presented how VELCO calculates PDP load credits. He reviewed the VTA language that specifies how load qualifies for credit. Mr. Omand noted a number of situations where he believes the backup service terminology in the VTA is not being properly credited to utilities in their PDP calculation. Mr. White asked if there were locations where backup service was not available full time. Mr. Omand will provide financial information on changes to calculation of credits.
- VII. Update on work of Metering Forum-Thad Omand**
- Mr. Omand provided an update on metering forum issues (B-22, Lyndonville) with the goal of providing changes well in advance of commissioning meters. Mr. Omand is working to document metering information from various DUs.
- VIII. Other business**
- The group agreed to have an ongoing review of the VY study and related analysis updates to OC agenda.
Mr. Presume reviewed the status of the ISO NE VT/NH studies. Mr. Dunn noted that one possible outcome of a VY shutdown is the need for interim resources to satisfy reliability requirements until a permanent solution is in place. The cost for these resources would likely be paid for by Vermont.

VELCO Operating Committee Final Meeting Minutes

Thursday, November 18

11:00 a.m.

Location: Vermont Electric Power Company (VELCO)

Committee Members present: Ken Couture (GMP), Ken Mason (VPPSA-Lyndonville-Vice Chair), Greg White (CVPS), Kevin Perry (Vermont Electric Cooperative), Tom Dunn (VELCO-Chair), Thad Omand (VELCO),

Others present: Chris Diebold (VELCO), Allen Stamp (VELCO), Kerrick Johnson (VELCO)

- I. **Opening Remarks**
 - Tom Dunn welcomed the group and reviewed the agenda
- II. **Minutes of October 21, 2010 meeting**
 - Under motion duly made and seconded, the minutes as amended of the October 21st meeting were approved as submitted.
- III. **Review of ISO New England Planning Studies**
 - Chris Diebold of VELCO's planning department reviewed the most recent Vermont/New Hampshire planning information.
 - Chris reviewed the planning criteria used for the studies and the operating committee had an opportunity to ask questions around the criteria.
 - Discussion revolved around the conservative nature of the "stressed case" which assumes that two critical facilities out of service.
 - The team is concerned about the issues around Vermont Yankee and its impact upon the system and the individual Vermont utilities.
 - Ken Couture commented that there may be concern that a Vermont centered approach would be more favorable than having solutions derived entirely by ISO NE.
- IV. **Telcom Operating Committee**
 - Mr. Stamp gave an update of activities regarding the formation of the sub-committee. He also presented a draft agenda for the kick off meeting. There are still a couple of DUs that need to provide resources to the committee-once the roster is complete then the committee will meet. Greg White will serve as a sponsor from the Operating Committee.
- V. **Fiber Project Status (including electronics cost allocation)- Greg White**
 - Mr. White provided a status on the fiber project. Make-ready work is underway in Rutland area and the Poultney area Mr. Stamp reviewed a status of the costs and options for cost allocation (see attached).
 - The Operating Committee agreed that the team should continue development of the allocation options and keep the committee informed of progress as an ongoing agenda item. Once the committee is comfortable with an approach then the committee will provide a recommendation to the board of directors.

- Mr. Stamp also reviewed the "Fiber Segment Tracker" with the committee which is used to understand the "construction ready" status of each segment of the work.
- Mr. Couture requested a list of substations that are part of the project.

VI. Power Supply Agreements

- Kerrick Johnson from VELCO provided an update on VELCO's role or ambiguous role in helping with Vermont issues around power supply agreements. VELCO does not purchase power. However, the ownership structure of TRANSCO and the need to insure transmission will support the purchase external entities will first approach VELCO about supplying power to Vermont. VELCO wants to assist with insuring the power supply needs of Vermont are met but is in a difficult position since it is not the ultimate purchaser of the power. VELCO will continue working closely with the DUs to insure Vermont's power supply needs are met.

VII. VTA PDP load credits-

- The committee members discussed how to define backup service. It was determined that "backup service" in the VTA will be defined as the ability to support the load in an area 100% of the time. In the context VELCO planners reviewed five specific areas that currently receive credit in the VTA calculation with the following results:
 - GMP Barret load normally being supported by National Grid on the 3316 line out of Comerford is able to be supported at peak loads from VELCO's Barre and/or Berlin substations at the peak and therefore should not receive credit in the future.
 - GMP load in the southern part of the State normally supported by National Grid from the Harriman end is able to be supported from VELCO's Bennington substation at peak loads and therefore should not receive credit in the future.
 - The load in the Southwest of the state served off of National Grid's G33 line
 - For CVPS was determined to be normally fed from VELCO's new Vernon substation and therefore should not receive credit in the future.
 - For GMP was determined to be able to receive backup service from VELCO's Vernon substation at the peak and therefore should not receive credit in the future.
 - The load in the Ryegate area normally served by National Grid on the 3324 line
 - For CVPS was determined to be able to receive backup service from VELCO's Hartford substation at the peak and therefore should not receive credit in the future.
 - For GMP it is able to received backup service if the Historical loads are approximately 1 MW with the Ryegate wood plant off. GMP confirmed the historical peak load for this area is 1.38MW. As a

result VELCO is able to support this load and GMP will no longer receive credit

- VEC currently receives credit for three PSNH ties. Two of these ties receive backup service from VELCO's Chelsea or Newport substation. VEC will request individual reads from PSNH to provide the third tie point (Canaan area) for credit at the peak. The Canaan area is not physically connected to VELCO's system.
- VELCO performed a quick analysis and determined that VELCO is capable of supporting GMP's Waterford area at peak load. GMP will perform an analysis to determine if they should receive credit for the Stamford area.
- The group discussed a small territory that CVPS has supported off of the NY system. It was determined that this load is paid directly to the supporting entity and does not get submitted to ISO and therefore should not receive credit.

VIII. Update on work of Metering Forum-Thad Omand

- The metering forum held a joint CVPS/GMP meeting to resolve specific items between the two entities. The forum is resolving a few small items and completing the documentation of load calculations.

IX. Other business

- The group agreed to have an ongoing review of the VY study and related analysis updates to OC agenda.
- Thad Omand will contact Morrisville for further direction on the B-22 issue.

X. Other business – B22

- The financial allocation of losses flowing through Morrisville's system if losses were allocated per tariffs was reviewed for January to September 2010. The following were the results
- Total dollars of losses flowing over the B22 were \$76,526. This would be a credit to CVPS and a charge to GMP
- Total dollars of losses flowing out of Morrisville's system into the Stowe substation was \$11,399. This would be shared on a load ratio basis between Stowe and GMP for \$9,477 and 1,922 respectively.
- Total dollars of losses flowing out of Morrisville's system over the green river switch was \$21,359. This would be credited to Morrisville and charged to GMP.
- GMP would then receive credit from Hardwick for their load that was supported by the power flowing out of Morrisville's system and from GMP's system. The credit to GMP for Hardwick's entire load would be \$39,163.
- The final result is as follows:
 - Morrisville \$43,768 charge = (\$76,526 - \$11,399 - \$21,359)
 - CVPS (\$76,526) credit

- Stowe \$9,477 charge
- Hardwick \$39,163 charge (this currently is performed)
- GMP (\$15,882) credit = $(\$21,359 + 1,922 - 39,163)$
- Total \$0

VELCO Operating Committee Meeting Minutes

Thursday, December 16, 2010

11:00 a.m.

Location: Burke Mountain

Committee Members present: Ken Mason (LED), Clay (LED), Ken Nolan (BED), Ken Couture (GM-phone), Greg White (CVPS-phone), Ellen Burt (Stowe), Tom Dunn (VELCO), Frank Etori (VELCO-phone), Hantz Presume (VELCO-phone), Allen Stamp (VELCO-phone).

Others present: Allan Stamp, Hantz Presume

- I. **Site Visit to new Lyndonville Substation**
 - Ken Mason, Dave Mullet, Jeff Wright, Ellen Burt and Tom Dunn met at the new Lyndonville substation to review the new station. It was cold.
- II. **Minutes of November 18, 2010 meeting**
 - Under motion duly made and seconded, the minutes as amended of the November 18th meeting were approved.
- III. **Update on ISO NE VT/NH study-Hantz Presume—Forward Capacity Market-Frank Etori**
 - Mr. Dunn provided an overview of the VT/NH study process and its current status.
 - Mr. Presume presented an update of the N-1-1 results of the ISO study. He cited numerous overloads many of which were consistent with VELCO's 2009 study. Other new problems have been identified for the first time. The process is still evaluating whether these issues are "real"—that is they need to be corrected. Mr. Presume reviewed the various conditions that are affecting the VT transmission system (e.g., west to east flows, Phase II import levels, etc.). Problems have identified with and without VY being on line.
 - Mr. Dunn initiated a discussion about the financial impact of the Forward Capacity Markets auction for 2013-14. Mr. Etori reviewed a recent Reliability Committee meeting where the cost of VY de-list was discussed. VY indicated its desire to de-list in the 2013-14 period. Due to reliability reasons identified by ISO, it was determined that VY was needed to support the grid. As a result VY will receive \$11M in 2013-14 to provide this reliability benefit (VY bid: \$3.9 kw-mo.—auction price: \$2.53 kw-mo.). If VY is not there then there would be no payment. VELCO has asked ISO-NE to look at the interpretation that VT is solely responsible for this cost given that many of the reliability problems are outside of Vermont.
 - Discussion ensued about potential outcomes, VY situation and whether it will continue to run. Mr. Etori indicated that preliminary discussions have occurred with representatives from CVPS and GMP. He mentioned that VELCO will assess potential scenarios and to convene a group of Vermont utilities to discuss. He indicated that Kerrick Johnson was developing a meeting of interested parties on January 14th.

IV. Telecom Sub Committee (review of Charter) Allen Stamp

- Mr. Stamp reviewed the status Telecom Subcommittee. Mr. Stamp discussed the technical issues that the group covered at its recent meetings. The subcommittee intends to meet weekly (Wednesday mornings).

V. Fiber Project Status (Including cost allocation)- Allen Stamp

- Mr. Stamp reviewed the cost of the various components of the fiber project (e.g., core network electronics cost, dispersed network electronics, etc.)
- Mr. Stamp reviewed the results of the recent Executive Committee where direction was provided with respect of the treatment of costs associated with the dispersed network—namely that these costs (net of ISO-NE contribution) will be the responsibility of the respective Distribution Utility. He indicated that he and others from VELCO would be working with the affected DUs to develop an appropriate payment mechanism to recover these costs.
- Mr. Stamp reviewed the status of the Fiber deployment project. Multiple segments are under varying stages of development (engineering, make ready, stringing). Reviewed the fiber tracker worksheet. Mr. Wright asked Mr. White if there has been any easement associated issues with fiber deployment—so far most issues have involved access concerns expressed by landowners.

VI. VTA PDP load credits-

- Mr. Dunn reviewed the results of Mr. Omand's group evaluating PDP credits. Mr. Perry provided a very helpful historical perspective of this analysis. He expressed a concern that the changes in treatment of the PDP credits is forward looking while the resolution of VEC credit issue (Taft Corners) involves a repayment to correct a past billing error. OC authorized VELCO to begin billing under terms discussed at the November and December OC meetings (backup must provide 100%). Mr. Dunn will bring a resolution to memorialize the PDP credit treatment at January's OC meeting.

VII. VEC Repayment of Taft's Corners Metering Error-Tom Dunn

- Mr. Dunn introduced a proposed repayment plan to compensate the under-billing of VEC that was paid by the remainder of the DUs. Mr. Perry provided another helpful historical perspective of the events leading up to the under-billing and the proposed repayment plan. The repayment is approximately \$500,000 and will take place over 6 months. Discussion ensued about how this will be prevented in the future—VELCO has implemented steps to ensure that meters are on line when the projects are commissioned. Mr. Perry expressed a concern about retroactively repaying VTA costs as part to the Taft's Corners event and asked that the proposal be amended to specifically exclude any reconciliation of transmission costs as part of this resolution. Mr. Mason asked where this credit will show up in each month's VELCO bill.
- The motion of the repayment (w/o VTA credits), as amended, was approved.

VIII. Other business

- Mr. White expressed a desire to move forward on resolving the allocation of the B-22 losses. He reviewed the information presented on the cost of the losses incurred. Mr. White indicated that he would contact Mr. Myotte to initiate discussions on resolving the B-22 loss issue. He noted that treatment of the losses associated with Lyndonville also needed to be addressed. Mr. White will also contact Mr. Omand to develop a straw proposal on how losses will be treated for the January meeting. Ms. Burt indicated that Stowe views the B-22 agreement has expired and that any losses reconciliation will need occur through tariffs.

VELCO Operating Committee Meeting Minutes

Thursday, January 20, 2011
11:00 a.m.
Location: VELCO

Committee Members present: Ken Mason (LED), Ken Nolan (BED), Ken Couture (GMP), Greg White (CVPS), Ellen Burt (Stowe), Tom Dunn (VELCO), Allen Stamp (VELCO).

- I. **Minutes of November 18, 2010 meeting**
 - Under motion duly made and seconded, the minutes of the December 16th meeting were approved.

- II. **Update on ISO NE VT/NH study-Tom Dunn**
 - Mr. Dunn provided an overview of the VT/NH study process and its current status. Reviewed the ISO's 2-2-11 PAC presentation.
 - There was a discussion about NTAs: What is the schedule for providing information on potential NTAs (2nd quarter), How NTAs might be funded—Mr. White offered a concept where generation is paid for as a transmission asset and any market revenues are subsequently credited against the revenue requirement of the generator.

- III. **Telecom Sub Committee - Allen Stamp**
 - Mr. Stamp reviewed the status Telecom Subcommittee which met 3 times since the December's OC meeting. Subgroups have been formed to look at various equipment and substation issues. These groups are meeting to reach decisions on these issues as soon as possible. Mr. Couture noted that GMP is anxious to resolve these issues so that deployment can begin immediately. The group intends to offer a cost allocation proposal for consideration at February's OC meeting. Mr. Wright noted that VEC is prepared to sign the attachment agreement once cost allocation is resolved.

- IV. **Fiber Project Status (including cost allocation)- Allen Stamp**
 - Mr. Stamp reviewed a presentation on the fiber optic project. Cost to date \$6.2 out a \$53M fiber-only project cost. Various segments are under development (i.e., engineering, make ready, installation/stringing). There was a discussion about coordination on the project. Mr. White noted that, depending on the intermediate network option selected, coordination can be on the critical path. Mr. Wright noted that the cellular network has been effective for meter read data transport, but not effective for system operation and control needs.

- V. **Energy Losses B22 Update—Thad Omand**
 - Discussion about how the losses CV is experiencing for deliveries over the B-22 should be treated. Mr. White suggested that the terms of the VTA allow for

VELCO to develop an allocation for these losses. Ms. Burt noted that CV should consider filing at FERC for the recovery of the losses. There was a disagreement among the OC members how to treat these losses. There was a discussion about the parallels between the B-22 situation and the Lyndonville-St. Johnsbury situation.

- VELCO will research the VTA to develop an interpretation of Articles V & VI and particularly what VELCO's role is in the loss allocation. Options include: 1) VELCO calculates the losses and allocates accordingly, 2) parties agree to a loss allocation arrangement, or 3) the affected utility relies on its tariff to recover losses from its transmission customers. Mr. Nolan expressed a concern that option 1 exposes VELCO to a challenge at FERC which could be very expensive. Mr. White and Mr. Dunn will contact Mr. Myotte to determine the status of negotiations among the affected Distribution Utilities.
- Mr. Mason brought the issue of allocating the losses LED is incurring for deliveries to the CV system at St. Johnsbury. He noted that this issue needs to be resolved prior to February 12th (90 days after the energization of the new Lyndonville substation). Discussions are underway between the 2 parties. Mr. White expressed the desire to rely on a set of consistent principles to reach an agreement on this issue.

VI. VEC Repayment of Taft's Corners Metering Error-Tom Dunn

- Discussion of repayment for the Taft's metering error. Mr. Mason talked about the VPPSA letter. The message of the letter is that, on a prospective basis, any credits should include all costs (energy, VTA and ISO transmission costs). The issue of transmission charges was discussed. Group agreed that VTA costs would be waived in this case. On a going forward basis there is a need to have a protocol for future billing errors. Discussion around what elements need to be included. Mr. Nolan noted that there is a RBA process at the ISO that provides an opportunity for a utility to seek an adjustment of transmission costs due to errors. CV, GMP and BED want to pursue the RBA for the RNS charges. VELCO will ask ISO about flexibility of RBA repayment and whether the resettlement can consider exclusively RNS charges.
- VELCO will bring a straw proposal on how future billing errors will be handled. Definition of billing errors, treatment of energy, VTA and RNS costs. Duration of period for recovery was discussed with consideration of statute of limitations and that in many cases these costs were included in rates. With respect to energy, the parties should seek to develop a mutually acceptable repayment schedule.

VII. Real Estate Transactions:

- CV will evaluate whether affiliate transactions allow to address need to transfer assets, VELCO document its preference and where policy will reside.
- GMP is going to review their bond indenture to determine if it has the ability to transfer land to an affiliate at book value.

VIII. Other business

- Group discussed the frequency of future meetings and it was decided to keep the meeting on a monthly basis.

VELCO Operating Committee Meeting Minutes

Thursday, March 17, 2011

11:00 a.m.

Location: Stowe Electric Department, Stowe

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Ken Nolan (BED), Greg White (CVPS), Ellen Burt (Stowe), Jeff Wright (VEC), Kevin Perry (VEC), Tom Dunn (VELCO), Allen Stamp (VELCO), Hantz Presume (VELCO).

- I. **Minutes of January 20, 2010 meeting**
 - Under motion duly made by Greg White and seconded by Ellen Burt, the minutes, as amended, of the January 20th meeting were approved.

- II. **Update on ISO NE VT/NH study-Hantz Presume**
 - Mr. Presume provided an overview of the VT/NH study process and its current status of the solutions study.
 - Load flows on potential options expected to complete by the end of March.
 - Cost estimates for each potential option currently being developed.
 - VELCO worked with study group on Monday the 14th to ensure that all Transmission Owners are using the same cost estimating methodology in preparing their respective estimates.
 - Mr. White asked how ISO is evaluating NTAs. Mr. Presume stated that ISO's engineer is studying each 115 kV bus and simulating adding generation until the constraint is relieved. He indicated that this approach should give us a good idea how much generation or load relief would be needed and approximate where they would be located to postpone the need for transmission upgrades.
 - The committee discussed the need for a policy discussion about NTAs. Mr. Couture suggested that it could be presented in a second All-Hands meeting.
 - Mr. Mason asked about the status of VY. A discussion ensued about the likely outcome of VY's relicensing. There continues to be uncertainty about the plant's future. It was likely that the issue be resolved in court.
 - Mr. Presume reviewed the options being considered to address the various needs that have been identified. Problems have been identified in various locations within VT. In northwest VT transmission line upgrades will be needed unless there are contract-backed flows over PV20.
 - VSPC members asked questions about ISO's planning criteria. ISO is going to be invited to come to VT to meet with the Vermont System Planning Committee ("VSPC") sometime over next few weeks to discuss these issues.
 - Mr. Presume noted that VELCO is preparing to conduct the 2012 planning analysis. He suggested that concerns about the planning assumptions be addressed to ISO-NE.

- III. **Telecommunications - Allen Stamp**

- Mr. Stamp reviewed the status Telecom Subcommittee continues to work on selecting system electronics and reviewing substation work associated with the deployment of the fiber.
- System architecture, component design and equipment installation (e.g., type and location of electronics, location of the various types of equipment, installation details, etc.) are still a work in progress. Mr. Stamp indicated that a draft of this plan will be available in early April. Team is utilizing an IBM resource to supplement the technical team. Mr. White noted that it is important that these issues get resolved quickly because of their smart grid project is going to deploy equipment beginning in May.
- Cost Allocation: Mr. Stamp indicated that he and Mr. Dunn are working on developing a proposal for cost allocation that would be shared at the April OC.
- Mr. Stamp reviewed the status of the construction of the fiber project. Numerous segments are under varying stages of development (e.g., engineering, make-ready, construction). Spent approximately \$8M of \$53M overall budget (end of January). 49 miles of construction is complete with many more segments under construction.
- Mr. Couture asked about the status of overall schedule and budget. Mr. Stamp indicated that with only 15% complete it is difficult to predict final outcome. There are indications that the heavy snow is affected cost and schedule particularly the make-ready work. The team is evaluating potential changes to project plan to get more of this work done in the non-winter months.
- The project is encountering some engineering delays and the team is examining ways to mitigate these impacts.
- Mr. Wright noted the value of face-to-face meetings between the DUs and VELCO.

IV. VEC Repayment of Taft's Corners Metering Error-Thad Omand

- Mr. Omand reviewed the proposed resolution that reflects the agreement reached at the February OC. Repayment
- Resolution No. 1 was moved, seconded and approved by the Committee.
- Resolution No. 2 proposes a methodology to follow to resolve future metering errors.
- Various comments were provided and an amended resolution to resolve future metering errors will be brought to the committee in April

V. Land Transfer Practices

- Mr. Dunn reviewed land transfers that were done on NRP, specifically, the GMP right-of-way and substation land. He indicated that these transfers were made at Net Book Value.
- Mr. Wright asked whether there was a procedure to document the process that is being used.
- Mr. White indicated that he will talk with CV personnel to determine if there are concerns about doing land transactions at net book value.
- Mr. Dunn will draft a proposed procedure for the DUs to consider at April's meeting.

VI. Other business

- Rescheduled April to Thursday the 28th.
- Mr. Mason asked again that we provide a template of loss allocation agreement. Mr. Omand will provide a proposal at April's meeting.

Resolution No: 1
RESOLUTION of VERMONT ELECTRIC POWER COMPANY'S OPERATING COMMITTEE
APPROVING THE CORRECTION OF THE TAFT CORNER'S SUBSTATION METERING ERROR

WHEREAS, the operating committee has agreed that for the time period September 13th, 2009 to August 12, 2010 the metering at Taft's Corners for Vermont Electric Co-op (VEC) was inadvertently excluded from their daily load calculation and allocated to every Vermont electric distribution utility through the statewide loss allocation; and

WHEREAS, the load for the time period July 1st to August 22nd, 2010 was resettled through the ISO-NE 90-day resettlement process but August 12th to the 22nd inadvertently double counted the load and only included one correction; and

WHEREAS, the electric distribution utilities have agreed to forego recalculating the Vermont transmission costs under the 1991 Vermont Transmission Agreement; and

WHEREAS, the electric distribution utilities have agreed to resettle the ISO-NE transmission costs as far back as an ISO Request for Billing Adjustment would have been allowed if completed at the time of discovery which is February 1st, 2010; and

WHEREAS, the Vermont electric distribution utilities wish to enter into an agreement to settle the energy charges improperly allocated as a result of the incorrectly metered load from September 13th, 2009 to June 30th, 2010

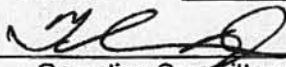
NOW, THEREFORE, BE IT RESOLVED that the Vermont Distribution Utilities agree as follows:

1. The energy and ISO-NE charges improperly allocated from VEC to other Vermont electric distribution utilities totals \$521,615.29 as shown in the appendix A;
2. That the Vermont electric distribution utilities allow VEC to repay this amount in 6 monthly installments commencing in April 2011;
3. That the Vermont electric distribution utilities have requested VELCO act as a clearing house for the transactions billing VEC and distributing the cash to the other Vermont electric distribution utilities through the monthly net settlement process.

Approved and adopted the 17th day of March 2011. I, the undersigned, hereby certify that the foregoing Resolution Number 1 was duly adopted by the Vermont Electric Distribution Utilities.

Following Roll Call Vote:

Ayes:	<u>6</u>
Nos:	<u>5</u>
Absent:	<u>—</u>



Operating Committee Chairman

APPENDIX A

	<u>Energy</u>	<u>Transmission Service</u>	<u>Total Energy & Transmission</u>
CVPS	\$ (223,730.96)	\$ (34,685.15)	\$ (258,416.11)
Hyde Park	\$ (1,473.65)	\$ (199.49)	\$ (1,673.14)
Johnson	\$ (1,906.26)	\$ (226.85)	\$ (2,133.11)
Ludlow	\$ (6,556.60)	\$ (688.45)	\$ (7,245.05)
Lyndonville	\$ (8,492.18)	\$ (1,098.52)	\$ (9,590.71)
VEC	\$ 446,685.41	\$ 74,929.89	\$ 521,615.29
GMP	\$ (124,853.62)	\$ (24,307.57)	\$ (149,161.20)
Hardwick	\$ (3,516.75)	\$ (506.61)	\$ (4,023.36)
Jacksonville	\$ (709.83)	\$ (80.33)	\$ (790.16)
Morrisville	\$ (3,969.12)	\$ (747.26)	\$ (4,716.38)
Northfield	\$ (3,536.37)	\$ (469.51)	\$ (4,005.88)
Readsboro	\$ (307.68)	\$ (30.74)	\$ (338.42)
Stowe	\$ (8,269.42)	\$ (1,028.18)	\$ (9,297.60)
WEC	\$ (3,155.48)	\$ (1,085.21)	\$ (4,240.70)
BED	\$ (36,148.28)	\$ (5,636.78)	\$ (41,785.07)
Barton	\$ (1,386.87)	\$ (244.41)	\$ (1,631.28)
Enosburg	\$ (2,394.10)	\$ (383.06)	\$ (2,777.15)
Orleans	\$ (1,580.21)	\$ (240.90)	\$ (1,821.11)
Swanton	\$ (1,492.35)	\$ (921.45)	\$ (2,413.80)
VM	\$ (13,205.68)	\$ (2,349.40)	\$ (15,555.08)
	<u>\$ 0.00</u>	<u>\$ (0.00)</u>	<u>\$ 0.00</u>

VELCO Operating Committee Meeting Minutes

Thursday, April 28, 2011
11:00 a.m.

Location: Burlington Electric Department, Stowe

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Ken Nolan (BED), Greg White (CVPS), Jeff Wright (VEC), Tom Dunn (VELCO), Allen Stamp (VELCO), Hantz Presume (VELCO).

I. Minutes of March 17, 2010 meeting

- Under motion duly made by Greg White and seconded by Ellen Burt, the minutes, as amended, of the March 17 meeting were approved.

II. Update on ISO NE VT/NH study-Hantz Presume

- Mr. Dunn initiated discussion about NW VT situation where a major transmission upgrade will be needed if no incremental generation is installed or a new contract for power on the PV20 transmission line is created.
- Mr. White asked who was going to lead this effort to explore and develop a solution to his solution. Mr. Dunn indicated that VELCO will provide information to the VT DUs and discuss additional steps with VELCO's leadership team.
- Mr. Presume provided an overview of the VT/NH study process and the current status of the solutions study.
 - Solutions have been prepared and they are being evaluated from cost and performance perspectives
 - In addition to NW VT, upgrades will be needed in areas near the CT River, Central Vermont (West Rutland to Coolidge) corridor and in northern VT. Upgrades may be 115 or 345 kV.
 - In response to a question from Mr. Couture, Mr. Presume indicated the ISO DSM NTA options are not accurate enough to be of much use. However, the generation options can be used as DSM or generation or a hybrid due to study approach. The ISO is not identifying the benefit of specific amount of generation at discrete locations. They are not considering cost or feasibility of the generation NTAs. VELCO is continuing to advocate with ISO to get them to enhance the NTA study.
 - ISO is going to consider the longevity of the transmission options being considered.
 - Final set of upgrades will be presented in July.
- There was a discussion about the feasibility of getting generation built. Current market economics make this very challenging.
- Mr. Presume reviewed the analysis ISO is conducting in a post-VY world. Under very conservative assumptions, several deficiencies have been identified that would require immediate action (up to 150 MW of load shedding) after the first contingency. Several "quick fixes" may be available to mitigate this risk. Under optimistic assumptions, no load shedding will be required in the near term. ISO-

NE plans to study system conditions between the most conservative and optimistic assumptions to better understand the drivers of the system concerns.

III. Telecommunications - Allen Stamp

- Mr. Stamp covered the status of Telecom Operating committee. The committee is meeting about every other week discussing network architecture—specifically interoperability testing scheduled to take place next week.
- Mr. Stamp gave a presentation on lit fiber cost allocation. Mr. Dunn told the group about an operational incident where a power line carrier communication path problem impacted system operation. VELCO is exploring
- There was a discussion about alternative potential mechanisms for paying for the electronics. Mr. Nolan asked whether a substation participation agreement-like mechanism would work. Mr. White asked whether a service fee could be established that recovered. He asked whether it was possible to create a separate asset class of assets whose cost is recovered by an amended SPA. Mr. Dunn indicated that VELCO would provide answers to these questions at the May committee meeting.
- Mr. White indicated that CV needs to order its electronics asap.
- Sandia conducting on-site visit next week.
- Mr. Stamp presented an overview on the status of the fiber project. He reviewed current costs and recent experience. Mr. Nolan noted that the overhead costs were high. Mr. Stamp indicated that much those costs are front end load due to the work needed to get the projects underway (PM, R/W, Legal, Field work, etc.). Additional detail on enhanced financial reporting will be available within approximately 2-3 months.

IV. VEC Repayment of Taft's Corners Metering Error-Tom Dunn

- Resolution #1: Mr. Dunn presented the amended Taft Corners Substation Metering Error Resolution. Mr. White moved the motion and it was seconded by Mr. Nolan. Motion passed.
- Resolution #2: Methodology for Resolving Future Metering Errors, as amended, was moved by Mr. Nolan and seconded by Mr. Mason. Motion passed
- Resolution #3: Mr. Mason asked that this item be tabled until the May meeting.

V. Land Transfer Practices

- Mr. Dunn provided a brief overview of the draft policy that he indicated will call for property transfer to be done at net book value.
- Mr. Dunn will present a proposed procedure for several land transactions between VELCO and the DUs for consideration at the May Operating Committee meeting.

VI. Facilities Rating Methodology Update

- Mr. Dunn reviewed the status of VELCO's analysis. He indicated that VELCO is focusing on BPS facilities and on any lines that present an immediate safety or reliability concern. VELCO is developing a plan to address issues that have been identified.

VII. Other business

- Mr. Dunn reviewed status of the IBM outage event. He provided information on the most likely cause of the K21 pole fire. He also reviewed the status of the engineering stand-down work and stated the need to complete a full functional assessment of work completed since 2005.
- Mr. Presume provided an overview of B-22 reliability impacts. Mr. White asked that the B-22 discussion be included at May's committee meeting and that Mr. Presume provide the committee with a review of the reliability implications of opening the B-22 switch.

Resolution No: 1 - Amended
RESOLUTION of VERMONT ELECTRIC POWER COMPANY'S OPERATING COMMITTEE
APPROVING THE CORRECTION OF THE TAFT CORNER'S SUBSTATION METERING ERROR

WHEREAS, the operating committee has agreed that for the time period September 13th, 2009 to August 12, 2010 the metering at Taft's Corners for Vermont Electric Co-op (VEC) was inadvertently excluded from their daily load calculation and allocated to every Vermont electric distribution utility through the statewide loss allocation; and

WHEREAS, the load for the time period July 1st to August 22nd, 2010 was resettled through the ISO-NE 90-day resettlement process but August 12th to the 22nd inadvertently double counted the load and only included one correction; and

WHEREAS, the electric distribution utilities have agreed to forego recalculating the Vermont transmission costs under the 1991 Vermont Transmission Agreement; and

WHEREAS, the electric distribution utilities have agreed to resettle the ISO-NE transmission costs as far back as an ISO Request for Billing Adjustment would have been allowed if completed at the time of discovery which is February 1st, 2010; and

WHEREAS, the Vermont electric distribution utilities wish to enter into an agreement to settle the energy charges improperly allocated as a result of the incorrectly metered load from September 13th, 2009 to June 30th, 2010

NOW, THEREFORE, BE IT RESOLVED that the Vermont Distribution Utilities agree as follows:

1. The energy and ISO-NE charges improperly allocated from VEC to other Vermont electric distribution utilities totals \$521,615.29 as shown in the appendix A;
2. That the Vermont electric distribution utilities allow VEC to repay this amount in 6 monthly installments commencing in April 2011;
3. That the Vermont electric distribution utilities have requested VELCO act as a clearing house for the transactions billing VEC and distributing the cash to the other Vermont electric distribution utilities through the monthly net settlement process.

Approved and adopted the 28th day of April 2011. I, the undersigned, hereby certify that the foregoing Resolution Number 1 was duly adopted by the Vermont Electric Distribution Utilities.

Following Roll Call Vote:

Ayes: 6
Nos: 0
Absent: 1



Operating Committee Chairman

APPENDIX A

	<u>Energy</u>	<u>Transmission Service</u>	<u>Total Energy & Transmission</u>
CVPS	\$ (223,730.96)	\$ (36,815.36)	\$ (260,546.32)
Hyde Park	\$ (1,473.65)	\$ (239.00)	\$ (1,712.65)
Johnson	\$ (1,906.26)	\$ (287.01)	\$ (2,193.27)
Ludlow	\$ (6,556.60)	\$ (860.67)	\$ (7,417.27)
Lyndonville	\$ (8,492.18)	\$ (1,322.00)	\$ (9,814.18)
VEC	\$ 446,685.41	\$ 75,342.55	\$ 522,027.96
GMP	\$ (124,853.62)	\$ (21,613.30)	\$ (146,466.92)
Hardwick	\$ (3,516.75)	\$ (608.72)	\$ (4,125.47)
Jacksonville	\$ (709.83)	\$ (101.80)	\$ (811.63)
Morrisville	\$ (3,969.12)	\$ (769.27)	\$ (4,738.39)
Northfield	\$ (3,536.37)	\$ (573.29)	\$ (4,109.66)
Readsboro	\$ (307.68)	\$ (39.10)	\$ (346.78)
Stowe	\$ (8,269.42)	\$ (1,274.09)	\$ (9,543.51)
WEC	\$ (3,155.48)	\$ (617.36)	\$ (3,772.84)
BED	\$ (36,148.28)	\$ (6,669.92)	\$ (42,818.20)
Barton	\$ (1,386.87)	\$ (212.59)	\$ (1,599.46)
Enosburg	\$ (2,394.10)	\$ (410.53)	\$ (2,804.63)
Orleans	\$ (1,580.21)	\$ (296.83)	\$ (1,877.04)
Swanton	\$ (1,492.35)	\$ (713.62)	\$ (2,205.97)
VM	\$ (13,205.68)	\$ (1,918.08)	\$ (15,123.76)
	<u>\$ 0.00</u>	<u>\$ (0.00)</u>	<u>\$ (0.00)</u>

Resolution No: 2

RESOLUTION of VERMONT ELECTRIC POWER COMPANY'S OPERATING COMMITTEE
APPROVING THE METHODOLGY FOR RESOLVING FUTURE METERING ERRORS

WHEREAS, the Operating Committee has agreed that metering errors may occur from time to time; and

WHEREAS, metering error is defined as an error in the calculation of values submitted to ISO caused by either an incorrect input or an error in the calculation that results in at least one utility being incorrectly charged and/or at least one other utility being incorrectly credited

WHEREAS, ISO-NE has two processes to correct metering errors, the first process being the 90 day resettlement process and the other process being a Request for Billing Adjustment (RBA); and

WHEREAS, the metering error may have occurred longer than can be recovered through the RBA or 90-day resettlement process


NOW, THEREFORE, BE IT RESOLVED that the Vermont Distribution Utilities agree as follows:

1. Upon discovery of a metering error VELCO will immediately begin the RBA and 90-day resettlement processes to correct as much of the error as possible. Using these processes will correct all ISO-NE transmission, energy, and market charges;
2. Metering errors not able to be corrected through the RBA and 90 day resettlement process will be resettled among the Vermont Distribution Utilities. Only energy costs will be corrected for periods beyond those that could be rectified through the established ISO-NE processes. Energy charges will be resettled up to six years prior to the date the incident was discovered;
3. Charges under the 1991 agreement will be discussed for each metering error and the operating committee will determine the time frame for these charges to be resettled up to the time frame available under the RBA process.

Approved and adopted the 28th day of April 2011. I, the undersigned, hereby certify that the foregoing Resolution Number 2 was duly adopted by the Vermont Electric Distribution Utilities.

Following Roll Call Vote:

Ayes: 6
Nos: 1
Absent: 1



Operating Committee Chairman

VELCO Operating Committee Meeting Minutes

Thursday, May 19, 2011

11:00 a.m.

Location: VELCO

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Greg White (CVPS), Jeff Wright (VEC), Ellen Burt (Stowe), Tom Dunn (VELCO), Allen Stamp (VELCO), Hantz Presume (VELCO), Karen O'Neill (VELCO), Sandy Rowe (VELCO), Chris Dutton (VELCO), Michele Nelson (VELCO), San Nelson (VELCO).

- I. **Minutes of April 28, 2011 meeting**
 - Minutes of the April 28 meeting were approved.
- II. **Land Transfer Practices**
 -
- III. **B22 Losses**
 - Mr. Presume summarized reliability impact of B22 open –
 - Greg White - options
 - Socialize state wide
 - Socialize load share basis – state, local (9 utilities)
 - CVPS believes it is not fair to pay all B22 losses to provide for this reliability.
 - Benefit possibly exempt Hardwick, other transmission customers
 - Mr. Dutton – Annual cost \$120K/yr, socialize 44% to CVPS, net out non-affected DU's (receive no reliability benefit)
 - Ms. Burt: look at sharing 9 utilities
 - Mr. Dunn asked that Thad provide results of analysis at the June meeting using 3% loss factor – WEC, Morrisville – invite all nine members to June OC meeting at VPPSA
- IV. **Update on ISO NE VT/NH study-Hantz Presume**
 - Mr. Dutton's introduction focused on NW VT issues - —PV20 driving need.
 - Mr. Dutton: Not a VY in/out issue, PV20 at NY state issue (DCT), no contract with Saranac = lose baseload uit.
 - Mr. Presume notes that the \$ estimate from Vermont adding other factors for consideration (longevity)
 - Mr. Couture – longevity is getting traction.
 - Discussion about cost of transmission options to resolve CC problems.
 - --
 - Greg White - Which NTA would be best? Need an analysis to find answer.
 -
- V. **Telecommunications - Allen Stamp**
Allen.....
 - **Resolutions -**

VI. NERC Facilities Rating Methodology

VII. Other Business

VELCO Operating Committee Meeting Minutes

Thursday, June 16, 2011

11:00 a.m.

Location: Vermont Public Power Supply, Waterbury

DRAFT Minutes

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Ken Nolan (BED), Greg White (CVPS), Jeff Wright (VEC), Tom Dunn (VELCO), Allen Stamp (VELCO), Hantz Presume (VELCO), Sandy Rowe (VELCO), Thad Omand (VELCO), Ellen Burt (Stowe), Eric Warner (Hardwick).

- I. **K41 Outage**
 - Mr. Dunn provided information on the K41 line where VELCO has determined that line clearances are insufficient and that the line has been opened until repaired.
 - Mr. Wright expressed a concern that this line outage will negatively impact upcoming capital projects and reliability. He encouraged VELCO to explore ways to correct the problems as quickly as possible.
- II. **Minutes of May 19, 2010 meeting**
 - Under motion duly made by Ken Mason and seconded by Greg White, the minutes of the May 19 meeting were approved.
- III. **Land Transfer Practices**
 - Ms. Rowe provided a brief review of the proposed policy at last month's meeting, and has received no comments to date.
 - Mr. White noted that CV conceptually agrees with the policy, but is continuing to evaluate the impact it could have on their bond indentures
 - Mr. Nolan suggested that the Committee be prepared to vote on the proposed policy at the July meeting. The Committee agreed that a vote on the proposal would take place in July.
- IV. **B22 Loss Allocation**
 - Mr. Omand reviewed an alternative hourly real-time allocation of the B22 using load ratio share based on a utility's statewide tie loads.
 - There was discussion about the proposal and alternatives including sale of the CV line.
 - The group agreed to continue discussions outside of the OC to determine if the issue can be resolved.
- V. **Update on ISO NE VT/NH study-Hantz Presume**
 - Mr. Presume reviewed the presentation on the results of the VT/NH study, specifically the recommended solutions for the four areas in VT that were identified as having reliability problems.

- Mr. Nolan noted that the NW VT issues are exacerbated by underlying weak system in NY and that we consider our options to get these issues resolved promptly. Mr. Dunn indicated that VELCO and NE ISO are working to meet with NYPA and NYISO to discuss these issues, potential solutions and develop action plans.
- The group noted that transmission costs are increasing at a rapid pace and this is becoming a large part of the cost of service.

VI. Telecommunications - Allen Stamp

- Mr. Stamp gave a presentation on proposed allocation of the costs of the fiber electronics and the status of the fiber optics project.
- Mr. Nolan moved for approval of the proposed cost allocation for the fiber electronics, seconded by Jeff Wright. The motion passed.
- There was discussion about maintenance of electronics and also the repair of fiber. It was suggested that the work could be completed by the DU or by a contractor. However, the maintenance of the electronics would be responsibility of the DU in the case of the electronics located in DU substations. VELCO will be responsible for the maintenance of the fiber plant.
- Allen Stamp also provided an update on the progress of the fiber project (see attached presentation).

VII. System Assessment Project

- Mr. Dunn gave a presentation on the System Assessment Project.

VIII. Other business

- Mr. Mason/ Brian Callahan provided information on VPPSA proposal to convert hydro units to treat them as negative load to avoid transmission costs. Process would involve declaring a non-price retirement of the units.

VELCO Operating Committee Meeting Minutes

Thursday, July 21, 2011

11:00 a.m.

Location: VELCO

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Chris Dutton (VELCO), Ken Nolan (BED), Greg White (CVPS), Jeff Wright (VEC-phone), Dave Mullet (VPPSA), Tom Dunn (VELCO), Allen Stamp (VELCO), Thad Omand (VELCO), Ellen Burt (Stowe)

I. Minutes of June 16, 2010 meeting

- The minutes of the June 16 meeting were approved.

II. VT/NH Study Update - Tom Dunn

- Mr. Dunn provided an update of the VT/NH study. He noted that the Reliability Committee was meeting on this day to discuss the recommended solutions to the problems identified in the Needs Assessment phase completed earlier in 2011. The recommended solutions in Vermont include: reconductoring much of the 115 kV system from West Rutland to Tafts Corner, a new 345 kV line from Coolidge to West Rutland, a new 115 kV line from Coolidge to Ascutney (built at 345 kV), reconductoring the Ascutney to Ascutney 115 kV tap (built at 345 kV), and installing capacitor banks at the Jay substation.
- Mr. Dunn discussed the northwest Vermont solution (i.e., reconductoring much of the 115 kV system from West Rutland to Tafts Corner) and noted the viability of non-transmission alternatives (NTAs) to the proposed transmission solution. In this case, the NTA (repowering of the Gorge generator) appears to be less than 25% of the cost of the transmission solution (\$45 M vs. \$220 M). However, when considering the situation from a Vermont only perspective, the transmission solution is less costly (\$2 M/yr for transmission vs. \$6 M/yr for generation net of market revenues). Mr. Dunn also described a second NTA, firm deliveries of NYPA Preference Power over the PV20, which would eliminate the need for the transmission upgrade. This option will require the agreement of numerous parties (e.g., NE ISO, NY ISO, NYPA, and all the public power recipients of the NYPA power in New England). It is uncertain whether such an agreement could be achieved though VELCO will continue discussions with the ISOs and NYPA. Nonetheless, NTAs appear to be viable, less costly overall and that VELCO will continue to work on developing these alternatives with the appropriate parties.
- For the other solutions Mr. Dunn reviewed the presentation being used at the Reliability Committee. Mr. Couture asked about the criteria that were used to assess the options. Mr. Dunn noted the comparison tables for the central Vermont options that evaluated the options on factors such as cost, longevity, constructability, use of right-of-way, losses and electrical performance.

- Discussion also centered around the how this effort ties back to the VSPC , Mr. Dunn committed to providing some insight to this at the next meeting of the Operating Committee.

III. Telecommunications Update – Allen Stamp

- Mr. Stamp presented an overview of both the Fiber and SmartGrid projects.
- Mr. Couture requested a schedule of the fiber projects that are serving the GMP. Discussion revolved around ROW issues experienced at GMP and that the weekly meetings with Mike Loucy were working through those issues. Mr. White asked for schedule for the when the costs of the fiber electronics will be seen by the distribution utilities. The fiber electronics costs and scope will be addressed in the Telecom Operating Committee and then conveyed to the Operating Committee –Mr. Stamp committed to convey that schedule to the Operating Committee.
- Mr. White provided a brief summary of CV's SmartGrid rollout in the Rutland area. He indicated that project is going well and that the electronics had been ordered. He noted that sequencing of the project is key and that CV is targeting an October 2011 start date with completion set for April of 2013. Ken Couture indicated that GMP's meter deployment was not linked to the fiber project, however the substation and distribution automation projects were linked to the fiber deployment. Mr. Wright commented that VEC's current SmartGrid deployment relies upon powerline carrier for communications and that VEC was considering a different communications approach for future upgrades to their system.
- Mr. Stamp indicated that lit fiber electronics were being evaluated for synergies resulting from the proposed CVPS and GMP merger.

IV. GMP Metering Issue

- Mr. Omand gave a presentation on a metering issue recently uncovered. It was determined that GMP received a double credit on their load calculation that resulted in underbilling to GMP. VELCO has followed the steps in the Operating Committee metering correction resolution (i.e., RBA at ISO, VTA and energy credit). Total amount of the underbilling is \$2.64 million. VELCO has met with GMP metering and financial team to review the event.
- Mr. Omand noted that VELCO is evaluating legal concerns about the method being used to resolve metering issues.
- Mr. Couture noted that the six year statute of limitations should be revisited—GMP believes it is too long. He asked that the group reconsider the duration of how long the metering resolution should go back.
- The committee agreed to revisit the policy at its September meeting.

V. System Assessment Project

- Mr. Dunn provided an update on the system assessment project. He indicated that the first two phases of the project (confirming relay settings, completing "as built" drawings) are underway. He noted that VELCO has found issues at the Stowe, Middlesex and Essex substations. He stated that the new commissioning

process would have prevented these issues from occurring. Mr. Dunn provided an update on the schedule and cost of the project.

VI. Other business

- Mr. Couture provided an update of the discussion on Service Quality Standards. He indicated that he had received comments from several distribution utilities and that he was waiting to hear from the municipal utilities. He indicated that he intended to have a conversation with the DPS about the standards, particularly about the major storm definition. He stated that the intent of the effort was not to change the plans but rather to seek a clarification with respect to the major storm definition. The committee will discuss the status of this effort again in August.
- Mr. Dunn also provided an update on the K-41 line work that was recently completed. He noted that VELCO, upon determining that the K-41 had serious clearance violations, had taken the line out of service and submitted an emergency filing with the PSB to obtain a waiver to complete corrective measures to the line. VELCO obtained the waiver on June 24 and completed the required work and returned the line to service in the second week of July. The PSB ordered that a regular \$248 be submitted within one year. VELCO is studying the line to determine if it is necessary to bring the line back up to the full rating of the existing conductor and if so, what additional work is required.

VELCO Operating Committee DRAFT Meeting Minutes

Thursday, August 18, 2011

11:00 a.m.

Location: GMP, Montpelier

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Ken Nolan (BED), Greg White (CVPS-by phone), Jeff Wright (VEC), Dave Mullet (VPPSA), Tom Dunn (VELCO), Allen Stamp (VELCO), Hantz Presume (VELCO), Ellen Burt (Stowe), Chris Dutton (VELCO), Jose Sebastiao (VELCO), Dan Nelson (VELCO)

- I. **Minutes of July 21, 2011 meeting**
 - The minutes of the July 21 meeting were seconded and approved.

- II. **VT/NH Study Update - Hantz Presume & Mr. Sebastiao (presentation)**
 - Mr. Presume provided an update on the July PAC meeting where the VT portion of the VT/NH Study solutions was presented. He noted that various factors were taken into account in recommending solutions. ISO New England (ISO) noted the need to study new information (e.g., results of capacity auction) when evaluating system needs.
 - Mr. Presume indicated that ISO is looking at operational actions as a means of mitigating voltage deficiencies (e.g., dispatching capacitor banks, generators, adjusting phase shifters).
 - Mr. Presume discussed the need dates for various upgrades. He noted that the analysis did not take into account the reactive support that Kingdom Wind may provide. These resources may defer the need for the Jay capacitor bank.
 - Mr. Presume discussed the needs in NW VT. Many of the need dates are immediate though non transmission alternatives (NTA) could materially affect the need date. In central VT the K-31 is needed immediately because there is no effective NTA available. In the Coolidge to West Rutland corridor overloads, the solutions could be affected by NTAs (e.g., PV-20 flows, generation north & west of West Rutland).
 - Mr. Presume covered the next steps in the VT/NH study and noted that the ISO is planning on completing the work by the end of 2011. He discussed the upcoming VELCO LRP that will be starting later this year. Mr. White asked if VELCO expected to see different results. Mr. Presume indicated that the differences would be relatively minor and the same deficiencies would be identified.
 - Mr. Nolan indicated that the proposed Fair Haven woodchip plant has contacted BED about buying power. He noted that the pricing was not very attractive and it is unlikely that BED would be interested in a contract. He suggested that VELCO maintain awareness about the status of the plant as it moves forward because it may become an issue in the upcoming legislative session. Mr. Dunn indicated that VELCO has been in contact with the proponents of the plant. He

noted that the plant is proposing to interconnect to the VELCO 115 kV system via a new 1 mile corridor.

- Mr. Presume presented information on the implementation of the proposed solutions. Mr. Dunn noted that \$200 million for the NW VT solution (rebuilding 115 kV from West Rutland to Tafts Corner) is not in the recently released capital forecasts.
- Mr. Sebastiao gave a presentation on VELCO's Capital Program. He discussed closeout projects, projects under permitting, and future projects. The presentation also covered the Highgate Converter Refurbishment. Mr. Mason asked about the nature of the cost estimates provided and the cost allocation to Vermont ratepayers. Mr. Sebastiao indicated that the estimates were the total costs of the substation and that the allocation of the project costs is reflected in the quarterly capital forecasts provided by VELCO. Mr. Mason asked about how the costs of the Sheffield project will be treated. Mr. Wright noted that ongoing O&M will be paid by the generator.
- Mr. Sebastiao reviewed the schedules for the upcoming projects noting that the central VT project is forecasted for completion by 2016.
- There was a discussion about the forecasts and the nature of the costs. Mr. Mason indicated that some of the municipalities may have concerns with respect to debt/equity ratio and their ability to raise capital to invest in VT Transco.

III. Telecommunications Update – Allen Stamp & Dan Nelson (Presentation)

- Mr. Stamp gave a presentation on the lit fiber electronics. He discussed the various technologies being evaluated for the lit fiber system. He reviewed the work that has taken place over the past three years to understand the design requirements of the system noting that there has been a substantial increase in the expected traffic on the fiber system.
- Mr. Mullet asked that VELCO provide information about what this system can do for the distribution utilities. Mr. Mason noted that the new system could introduce additional risk to the distribution business. Mr. Stamp will prepare examples how the fiber system can be used to assist DU operations and provided the deadlines for participating in the fiber system.
- Mr. Mullet suggested that VELCO cover the fiber project and lit fiber at the upcoming VPPSA retreat. Mr. Dunn agreed that Mr. Stamp, Mr. Nelson, and Mike Loucy should work with Mr. Mullet to provide a presentation for the retreat.
- There was a discussion about the overall cost of the lit fiber project. Mr. Dunn indicated that the cost of the lit fiber will be higher than the original estimate and that VELCO will bring the new estimate back to the OC in September. Mr. White asked whether the allocation methodology of the cost of the fiber electronics that the OC approved at the July meeting should be brought to the VELCO Board for approval. Mr. Dunn indicated that it should and will make sure a resolution is prepared and brought to the VELCO Board.
- Mr. Nelson gave a presentation on the status of the Statewide Radio Project. Mr. Nelson also reviewed how the system will function.

- Mr. Stamp provided an update on the fiber project. He noted that the project is on schedule for an end of 2012 completion and that the project is meeting budget expectations.
- Mr. Stamp provided an update on the SmartGrid project. He highlighted the progress being made by the DUs, the cost and schedule status, and the management of ongoing risks.

IV. GMP Metering Adjustment Update-Tom Dunn

- Mr. Dunn provided an update on the GMP metering adjustment. He noted that the ISO approved the Requested Billing Adjustment (RBA) for January, February and March of 2011. Mr. Dunn indicated that the VELCO Board of Directors approved of making a FERC filing to obtain FERC's support for the settlement and that GMP is preparing a repayment plan.

V. Service Quality Standards Clarification - Ken Couture

- Mr. Couture provided an update on the effort to clarify SQ standards. Mr. Couture and Mr. White are meeting with the DPS on September 2 to discuss the major storm definition. Mr. Couture indicated that he would update the group on the DPS meeting at the next OC meeting.

VI. System Assessment Project

Mr. Dunn provided an update on the progress of VELCO's System Assessment Project. He indicated that the multi-phase project is underway and that the scope of the later phases, which are dependent on completion of earlier phases, is ongoing. He noted that the project is scheduled for completion in 2Q 2012 though final scope definition may affect this date.

VII. Other business

- Mr. Mason noted that CV and LED have not reached an agreement on transmission losses allocation. He asked if VELCO was concerned about the position of the switch between CV and LED.
- Mr. Dunn discussed the need to improve outage scheduling among the DUs and VELCO. He highlighted the recent example where CV scheduled an outage on their Johnson bus with relatively short notice. He noted that this outage, in combination with the long-term outage of VELCO's Middlesex transformer (due back in November), created significant reliability risk to north central Vermont. It was generally agreed that additional coordination would be beneficial. Mr. Dunn offered to develop a straw proposal for improved outage coordination for the group to consider at the October OC meeting. The intent of this effort would be to reach agreement on an enhanced outage coordination procedure that would ultimately be approved by the VELCO BOD.

VELCO Operating Committee Meeting Minutes

Thursday, October 20, 2011

11:00 a.m.

Location: VPPSA, Waterbury

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Ken Nolan (BED), Greg White (CVPS-by phone), Jeff Wright (VEC), Tom Dunn (VELCO), Allen Stamp (VELCO), Thad Omand (VELCO), Ellen Burt (Stowe), Chris Dutton (VELCO), Jose Sebastiao (VELCO), Dan Nelson (VELCO), Karen O'Neill (VELCO), Bill Piper (for VPPSA), Josh Diamond (for WEC), Kevin Perry (VEC)

I. Minutes of August 18, 2011 meeting

- The minutes of the August 18, 2011 meeting were moved by E. Burt and seconded by G. White and approved by the group.

II. VT/NH Study Update - Hantz Presume (presentation)

- Mr. Presume provided an update on the VT/NH Solutions Study. He noted that various factors were taken into account in recommending solutions. ISO New England (ISO) identified the need to study new information (e.g., results of capacity auction) when evaluating system needs. He indicated that ISO was completing an addendum to the study to evaluate the effects of changes to several assumptions (e.g., load forecast, capacity auction results, and new generators—KCW, Georgia) on the recommended solutions. Mr. Presume indicated that ISO is also looking at operational actions as a means of mitigating voltage deficiencies (e.g., dispatching capacitor banks, generators, adjusting phase shifters). In conversations with the ISO's Brent Oberlin it appears that the northwest Vermont upgrades (West Rutland to Tafts Corners) could be deferred.
- Mr. Presume discussed the needs in central VT where many of the need dates are immediate though non transmission alternatives (NTA) could materially affect the need date for some of the solutions. In central VT a K-31 solution is needed immediately and there is no effective NTA available. In the Coolidge to West Rutland corridor overloads, the solutions could be affected by NTAs (e.g., PV-20 flows, generation north & west of West Rutland).
- Mr. Presume covered the next steps in the VT/NH study and noted that the addendum work will affect the overall schedule and the Solutions Study is now expected to be finalized in the first quarter of 2012. He discussed the VELCO Long Range Plan (LRP) is underway and a draft of the LRP will be completed by the end of 2011. Mr. Presume noted that the study will build upon the VT/NH study work but will look at a twenty year period as compared to the ten year period in the ISO study. Another difference between the plans is that the LRP will conduct economic screening of NTAs.
- Discussion then addressed the concern around load reduction. Mr. Dunn referenced figures that the Vermont Energy Investment Corporation (VEIC) has conveyed. Members of the committee commented on their observations regarding load growth. It was agreed that lower overall demand has been

experienced, however it was noted that peak demand was observed during the shoulder months. Furthermore, the team also suggested that the effects of distributed generation, in particular residential solar, could also affect the study assumptions. The subject of Demand Reduction (DR) was also reviewed, and it was stated that the last DR call exceeded expectations of the event.

III. Vermont True Up Agreement – Thad Omand

- Mr. Omand reviewed the history of GMP trueup. On advice of FERC counsel we developed a FERC filing to notifying FERC that VELCO is proposing to follow a process to correct billing errors.
- Mr. Omand presented questions about whether the OC would like flexibility in FERC document or prefer a more prescriptive filing. Ms. Burt asked about the billing correction process at ISO. Mr. Omand explained the ISO process.
- Mr. Omand reviewed the process that the OC followed in developing a process for VELCO to use in handling billing corrections. Ms. O'Neill explained the rationale for the approach for a FERC filing. She indicated that the filing was drafted to provide flexibility but that it was VELCO's intention follow the methodology for resolving metering errors agreed to by the Operating Committee in April of this year.
- Mr. Piper, on behalf of VPPSA, indicated that they would be OK with draft filing provided there was a second document that was prescriptive by which true-ups will be handled. VPPSA's position is that this would be an obligation for all DUs to make ratepayers whole.
- Discussion ensued about how process works today and how to implement the guidance offered by the committee. Mr. Couture expressed a concern that the six year period was too long. Committee talked about payback and look-back periods. There was general agreement the payback should be no more than three years and that look back period would be six years. The committee discussed that the payback period should not exceed 50% of the duration of the error.
- Mr. Couture indicated that he would discuss the look-back period with GMP management.
- Ms. O'Neill indicated that VELCO would draft language to assuage the concerns expressed and circulate the new language to the Committee members. It was agreed that VELCO would then schedule a conference call to vote on the proposed language.

IV. Telecommunications Update – Allen Stamp (Presentation)

- Mr. Stamp gave a presentation on the lit fiber electronics. He discussed the various technologies being evaluated for the lit fiber system. He reviewed the work that has taken place with the DUs and consultants to understand the design requirements of the system. Mr. Stamp noted that one of the primary outcomes of the evaluation is a substantial increase in the expected traffic on the fiber system making expansion of the existing fiber electronics platform impracticable. He explained that the existing system, in addition to having inadequate capacity, was being phased out by the manufacturer in 2016. Mr. Stamp presented information on the recommended system that is based on

dense wave division multiplexing (DWDM) technology. He indicated that was a discussion about the cost estimate, the timing of the order for the equipment, the cost of the overheads included in the estimate.

- At the conclusion of Mr. Stamp's presentation, the committee voted to support moving forward with DWDM system proposed.
- Mr. Stamp provided an update on the fiber project. There was some discussion regarding the challenges faced by the project as the construction moves on to more congested areas. Mr. Stamp conveyed that recent Estimate At Complete (EAC) analysis shows that the project will utilize the full \$53 M target for the project.

V. Generator Interconnection Agreement-Tom Dunn

- Mr. Dunn provided an update on the generator interconnection for Sheffield Wind. He noted the provisions on maintenance including the need for line outages.

VI. Power Accounting System – Thad Omand

- Mr. Omand provided an overview of the changes and software upgrades completed as part of the effort to improve the power accounting system.
- Mr. Omand conveyed the need for better process documentation of the effort and that the group was currently undertaking that effort.
- Mr. Nolan and Ms. Burt, while complementing Mr. Omand on his efforts with the metering forum, expressed concern over the cost and progress to date of the effort.

VII. Service Quality Standards Clarification- Ken Couture

- Mr. Couture updated the group on a DPS meeting regarding this item and indicated that he would keep the group informed of any other developments if needed.

Other business

- Mr. Dunn provided a brief update of the System Assessment Project.
- Mr. Mason requested that VELCO provide a status of the as built drawings for the recent upgrades at Lyndonville.

VELCO Operating Committee Final Meeting Minutes

Thursday, November 17, 2011

11:00 a.m.

Location: VELCO, Rutland

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Ken Nolan (BED-by phone), Greg White (CVPS), Jeff Wright (VEC-by phone), Kevin Perry (VEC-by phone), Tom Dunn (VELCO), Paul Renaud (VELCO) Allen Stamp (VELCO), Thad Omand (VELCO), Ellen Burt (Stowe-by phone), Karen O'Neill (VELCO), Fred Szufnarowski (GMP consultant)

I. Minutes of October 20, 2011 meeting

- The minutes of the October 20, 2011 were amended to include Kevin Perry (VEC-by phone) as an attendee, the meeting minutes were then moved by G. White, seconded by K. Couture and approved by the group.

II. VT/NH Study Update - Paul Renaud (presentation)

- Mr. Renaud reviewed the results of the VT/NH Solutions Study with an emphasis on the VELCO studies that support the document.
- Mr. Renaud discussed the results of the alternatives study done by VELCO. He noted that some solutions involved multiple NTAs installed around VT. He discussed the impact of having deliveries on the PV20. He indicated that these flows were effectively in deferring the need for transmission. Mr. White asked whether the alternatives were equally effective in deferring transmission. Mr. Renaud indicated that they were.
- ISO assessments confirmed that either the PV20 or a Gorge repowering would effectively defer northwest VT upgrades. ISO also is conducting an Addendum Study to evaluate impacts of new forecasts, enhanced efficiency, actual phase shifter operations. He indicated that ISO was completing another addendum to the study to evaluate the effects of changes to several assumptions (e.g., load forecast, capacity auction results, and new generators—KCW, Georgia) on the recommended solutions. Mr. Dunn noted that the study will probably result in deferring the need for some of the transmission upgrades.
- There was further discussion of the Non Transmission Alternatives (NTAs) for the planned transmission solutions and the uncertainty of the load forecasts. Uncertainty exists with the future load growth and the efficiency that may be brought about by the eEnergy Vermont smart grid project. K. Nolan added that when energy efficiency is factored into the forecasts that the projected load for Vermont decreases. Mr. Dunn indicated that Efficiency Vermont is forecasting a 18 MW reduction in load due to efficiency efforts. Mr. Renaud noted that ISO is also looking for feedback on how to incorporate demand side management into the planning process. Mr. Dunn noted that the study is relatively conservative and that the planned addendum will reflect optimization of the plans.
- Mr. Renaud discussed next steps and further plans with the effort. Mr. Dunn noted that once ISO NE identifies items in the planning effort that VELCO is obligated to show progress and make sure that issues are resolved in a timely manner.

- Gorge Project Update presentation: Mr. Szufnarowski reviewed the Gorge repowering project which has been identified as an NTA for the capacity issues identified in NW VT. He discussed the rationale for multiple units (i.e., 3 turbines). He noted that the site can accommodate dual fuel sources (natural gas and kerosene) since it site at the terminus of a natural gas pipeline and has storage for bulk liquid fuel. Discussion also followed relative to the need date driven by either capacity or reliability requirements which shows a need date in 2015. Discussion also followed on how the need date fits into the planning process at ISO and the Vermont System Planning Committee (VSPC). It was noted that resolution of the viability of the project would need to be completed by 3Q of 2012 in order to meet the 2015 need date. Mr. Couture reviewed the layout of the existing Gorge generator and site. Discussion about Dkt. 7081 process and need to start analysis. GMP is looking for interest among the DU community to participate on project team to evaluate Gorge project.

III. Vermont True Up Agreement – Thad Omand

- Mr. Couture reiterated commitment to continue to refund the \$2.6 million. GMP believes that each DU has an obligation to confirm validity of load information. VELCO has improved review of metering data. Process more solid today and to reach the goal of accurate information. True-up agreement is the wrong direction as it doesn't provide an incentive for each DU to ensure accuracy of load information.
- Mr. Omand reviewed the progress that has been made with the metering forum and the checks that are now in the process that would mitigate the possibility of errors in the future. Mr. Dunn stated that it appears that if the team sticks with its reviews of the metering data that the likelihood of a large error going forward is diminished. Mr. Wright suggested that the frequency of the reviews by the metering forum be increased to ensure that an error wouldn't compound over time.
- The group discussed how to move forward with the potential FERC filing that was discussed at the October Operating Committee meeting. Ms. O'Neill reviewed that the team has the ISO process for correcting errors, but if members of the Operating Committee wanted to implement the process that was previously agreed upon then a FERC filing would be required. Ms. O'Neill further stated that it would be better to have consensus on the approach if a FERC filing was undertaken. Mr. Dunn volunteered to contact each team member individually to understand the direction the group would like.
- Several members requested GMP indicate the number of years they would be willing to accept in the look back period.

IV. Telecommunications Update – Allen Stamp (presentation)

- Mr. Stamp gave a presentation on the fiber project status. He noted that project is on track from both cost and schedule perspectives. He provided updates on engineering, material, and permit activities. Project risks were reviewed and he noted that the project forecast will be revisited at the 250, 500, and 750 mile completion points. It was noted that the Executive Committee of the Board of Directors approved the Lit Fiber project electronics

for the VELCO portion of the work. Mr. Stamp noted that the team was still working with the DUs to arrive upon target estimates for the DU portion of the electronics. Once the estimates for lighting the DU substations are complete then that budget will be reviewed by the VELCO Board.

- Ms. O'Neill discussed the draft Network Access Agreement and asked that the distribution utilities provide comments by the December Operating Committee meeting.

V. VELCO Outage Coordination – David Haas (presentation)

- Mr. Haas provided a brief overview of the VELCO Outage Scheduling Process. He reviewed the timeline and expectations of VELCO for outage notification. He indicated that VELCO provides the inter-DU coordination for the state's sub transmission system. Mr. Wright commented that the efforts of VELCO have helped increase the level of cooperation within the state's utilities. The team reviewed a specific outage event from this past summer and commented on the lessons learned from the effort.
- Mr. Dunn suggested that there may be an opportunity to provide even more coordination through a "Operations Subgroup" of the Operating Committee. It was suggested that a meeting be scheduled to discuss this with operations personnel from the state's distribution utilities that own sub transmission assets.

VI. Other Business

- Land Transfer Policy- Karen O'Neill: Limited progress on this policy as the need to work with lawyers from CV and GMP.
- System Assessment Project – Tom Dunn: Mr. Dunn reviewed status of SAP. He noted that the project will extend into 2013 due to the need to conduct line testing on 3454 kV.
- Lyndonville Metering Project – Ken Mason provided an update on a new metering system that provides system load data from each of LED's substation.

VELCO Operating Committee Meeting Minutes (FINAL)

Thursday, December 22, 2011

11:00 a.m.

Location: Burlington Electric Department, Burlington

Committee Members present: Ken Mason (VPPSA-LED), Ken Couture (GMP), Ken Nolan (BED), Greg White (CVPS), David Mullet (VPPSA), Jeff Wright (VEC), Kevin Perry (VEC), Jeff Disorda (VELCO), Tom Dunn (VELCO), Allen Stamp (VELCO), Fred Szufnarwoski (GMP consultant), Deena Frankel (VELCO)

I. Minutes of November 17, 2011 meeting

- The minutes of the **November 17, 2011** meeting were moved by J. Wright and seconded by G. White and approved by the group.

II. Gorge Update - Fred Szufnarwoski (presentation)

- Mr. Couture noted that the name of the group has been changed to the Northwest VT NTA Study Group to reflect the true focus of the group.
- The NWVT NTA group has decided to expand the focus to include central Vermont. Mr. Szufnarwoski indicated that the Connecticut River Corridor portion of the VT/NH study will not be included in group's work because solutions for each area appear to be independent of one another.
- Timeline for this study is more accelerated than what was contemplated under the MOU in Dkt. No. 7081 because of the need to synchronize this work with the transmission studies currently underway, the group has a goal of 3Q 2012.
- Mr. Szufnarwoski reviewed the process the group is following and highlighted the potential challenges associated with selecting a NTA as a solution to the reliability problems.
- Group will meet again in early January for ½ day meeting.
- Cost allocation question was discussed. Ms. Frankel noted that the VSPC MOU provides guidance on cost allocation. She noted that the group first needs to address the technical issues and viability on NTAs before cost allocation can be discussed.
- Mr. Dunn discussed the overall background of the northwest VT reliability issues and how NTAs are being compared to transmission upgrades to address these issues. He noted that the cost allocation question is going to be challenging in light of the differing treatment of NTAs and transmission.
- Mr. Mason noted that the affected municipal utilities still needed to be identified.
- The NWVT NTA group will provide a regular updates at future OC meetings.

III. Vermont True Up – Update Tom Dunn

- Mr. Dunn reviewed this topic and suggested that further discussions were needed to develop a consensus, he indicated that he would continue personal discussions with the members of the committee in an effort to close this issue.

- Mr. Perry suggested that we consider making a FERC filing that allows a generic process while still working on long term solution. He suggested that the filing move forward so that the GMP bill-back can be approved.
- Mr. Dunn stated that he will talk with Ms. O'Neill about moving the FERC filing forward.
- Mr. Couture reiterated GMP's commitment to resolve the \$2.6 M metering issue as agreed to with the group, however, he restated GMP's concern regarding the resolution of the future issues and noted that the current motion approved by the committee doesn't reinforce accountability upon the members to resolve issues in a timely fashion.

IV. VT/NH Study Update - Paul Renaud (presentation)

- Mr. Renaud provided an update of the results of VELCO's Long Range Plan and how they compare to the results in from ISO's VT/NH Solutions Study.
- He noted that VELCO's results generally show higher critical load levels than ISO.
- Mr. Renaud also noted that VELCO's approach was a bottom up review in contrast to ISO's more of top down study.
- Mr. Renaud reviewed transmission and non-transmission solutions. He reviewed generation at various locations in Northwest and Central VT. Mr. Couture asked what assumptions VELCO has made on the Berlin unit. The group asked that VELCO provide a list of the status of existing generators. There was a discussion about the impacts of varying the size of generators on system needs and whether simulated units require diversity to meet the requirement. Mr. Renaud indicated that multiple units would be necessary to achieve transmission-level equivalence.
- Mr. Renaud noted that the Connecticut River Corridor portions of the study was more influenced by activities and decisions in New Hampshire.
- Mr. Couture asked what assumption about VY in VELCO's study. Mr. Renaud indicated that VY is in all cases.

V. Telecommunications Update – Allen Stamp

- Mr. Stamp reviewed the status of the Fiber Project. He noted that the project is on track with respect to budget and schedule goals. He provided information on fiber electronics.
- Mr. Stamp indicated that VELCO will bring the cost estimate for the fiber electronics in the DU substations to the OC in January. Mr. Dunn provided information on the approval status fiber project and that we need to obtain VELCO Board approval for the allocation process that the DU substation electronics.
- Mr. Stamp reminded the members of the committee that they have had a draft of the proposed network access agreement for review and no comments have been received.
- There was a discussion about landowner contacts on the subtransmission lines and that generally this has been going well with effective VELCO-DU communication is key.

VI. Outage Coordination – Tom Dunn

- Mr. Dunn gave an update on the outage coordination effort underway. He noted that Dave Haas has scheduled three meetings with DU operators to cover a variety of operation issues. Mr. Mason raised the issue about who has control of sub transmission switches interconnecting with VELCO facilities. It was discussed that this would be a good topic for the group to consider.
- Mr. Dunn suggested that VELCO come to VPPSA BOD meeting to review the outage coordination efforts with VPPSA utilities. Mr. Mullet asked that VELCO come to the February meeting which is scheduled for February 9th.

VII. Vegetative Management Presentation – Jeff Disorda

- Mr. Disorda gave a detailed presentation on VELCO's Vegetative Management Plan, practices, and NERC/NPCC vegetation management standards.
- Highlights of the presentation included;
 - affects of the Northeast Blackout;
 - comparison of ROW's before and after implantation of the new standards;
 - trimming cycles;
 - the use of LiDar; and
 - the use of integrated field GIS.

VIII. Service Quality Standards Clarification- Ken Couture

- Mr. Couture updated the group on the clarifications to the SQRP. 5 to 6 meetings were held with the DPS and GMP, CV and VEC. Progress made on back-to-back storm definitions.

Other business

- The group decided, subject to confirmation by Mr. Couture, that all 2012 non-VELCO meetings will be held at GMP's Montpelier office. In addition, the May meeting will also be moved from VELCO to GMP's office.