



**Final Meeting Minutes  
January 20, 2016  
Doubletree Hotel  
South Burlington, VT**

The Vermont System Planning Committee (VSPC) held a regular meeting on January 20, 2016, at the Doubletree Hotel in South Burlington, Vermont. Shana Louiselle, acting chair, called the meeting to order at 9:33.

### **Approval of the minutes**

Steve Litkovitz moved approval of the October 14, 2015 minutes, Melissa Bailey seconded and the minutes were approved without objection. Ms. Louiselle pointed out that notes from the VSPC meeting with ISO-NE were also posted on the VSPC website.

### **Introductions**

Participants introduced themselves. A list of attendees by sector appears on page 6 of these minutes.

### **Review and action on the VSPC annual report**

Mr. Litkovitz thanked VELCO staff for its good work on drafting and circulating the annual report. He moved approval, which was seconded by Hantz Pr sum . The report was approved without objection.

### **Subcommittee reports**

#### **GEOGRAPHIC TARGETING SUBCOMMITTEE**

John Woodward, Geographic Targeting (GT) Subcommittee Chair, introduced the topic of potential evolution of the VSPC in light of transformation now underway in the electric grid and the state's goal of 90% renewable energy by 2050. VELCO is preparing "straw man" recommendations for the April VSPC meeting, and will meet with various people in the interim to get input. A joint meeting of the GT and Forecasting Subcommittees will be held on February 10 to discuss the question of VSPC evolution.

In its 2015 annual geotargeting recommendations, the VSPC recommended that GMP file a reliability plan for the Hinesburg area, consistent with GMP's non-transmission alternatives (NTA) screening of the area, as required by the Docket 7874 (Standard Offer) screening framework. The Public Service Board (PSB) had not yet acted on the recommendations at the time of the meeting.<sup>1</sup> GMP will present the reliability plan at the next GT Subcommittee meeting on February 10, preparing for filing with the PSB by April 1, 2016. The full NTA analysis is expected to be ready in February, examining renewable energy systems with battery storage and synchronous condensers as potential NTAs, along with an energy efficiency analysis.

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<sup>1</sup> The PSB issued an order approving the recommendations on 1/22/2016.

Mr. Woodward stated that the subcommittee is also considering the locational aspects of distributed generation, examining growth rates of different technologies by region.

At its last meeting, the subcommittee discussed its work plan for 2016. This is an interim year prior to starting the new 20-year plan cycle. The next cycle will have an increased focus on new technology and a more robust forecast for electric vehicles, heat pumps, solar and the implications of Act 56 Tier III implementation and the Comprehensive Energy Plan.

#### **FORECASTING SUBCOMMITTEE**

The Forecasting Subcommittee will meeting on on February 24.<sup>2</sup> It has not met since the last VSPC meeting.

#### **PUBLIC PARTICIPATION SUBCOMMITTEE**

Ms. Louiselle reported on the December 8, 2015, Public Participation Subcommittee meeting. The group discussed the VECAN conference and the comprehensive energy plan. They shared expectations for the coming legislative session regarding net metering, solar siting and other energy issues. The group will be involved with the discussion of the public engagement component of the VSPC evolution question.

### **Comprehensive Energy Plan**

Asa Hopkins, PhD, PSD Director of Planning, gave a presentation on the Vermont Comprehensive Energy Plan (CEP). The presentation is posted at:

<http://www.vermontspc.com/library/document/download/5251/PSD-CEP-VSPC-20160120.pdf> . He pointed out that PSD had received more than 800 comments through various channels including public meetings. In reviewing the slides, he pointed out that the smart rates reference on slide 14 should have indicated smart rates reducing peak, meaning time of use rates. When asked whether Efficiency Vermont will work on fossil fuel objectives, Dr. Hopkins stated that he was not sure how the fuel switching programs would be structured. Solar, wind and hydro are only relevant to electric production, but electricity can displace other forms of energy.

Asked how the VT plan compares to other states, Dr. Hopkins said that no other states have renewable targets like Vermont's, but others have greenhouse gas reduction schedules. California has similar standards to Vermont. Vermont uses a screening tool for efficiency and the value of renewables to the grid. The tool can value fuel switching from fossil fuels to electricity for heating. Some policy goals may conflict, for example more aggressive efforts may have economic impacts. Regional Economic Models Inc. (REMI) was used to for economic evaluation. However, energy is only 10% of GDP, so impacts are relatively small.

Dr. Hopkins was asked whether per capita income was projected to rise or fall. It is projected to rise but the rate is uncertain. Five percent of Vermont jobs are related to energy efficiency. Asked whether battery advances would be needed to meet goals, he stated they would be helpful. Storage and controllable loads are a large potential component of meeting our goals, but the pace of their development is uncertain.

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<sup>2</sup> Note: this meeting was changed to a joint meeting with GT on February 10.

The cycle for updating the CEP is six years. The Department reviews every three years, and the next report is due out January 1, 2022.

## **Regional Planning Commission Energy Project**

Jim Sullivan, Executive Director of the Bennington Regional Planning Commission, gave a presentation on the energy planning project now underway at three RPCs with support from the Public Service Department. (See presentation at: [http://www.vermontspc.com/library/document/download/5252/RegPlanPresentation\\_VSPC\\_2016\\_01\\_20.pdf](http://www.vermontspc.com/library/document/download/5252/RegPlanPresentation_VSPC_2016_01_20.pdf) .) The project is looking at how to support the state energy goals at the level of individual regions. It is asking local questions about how many houses must be weatherized, how the area transportation fleet needs to change, and where the region wants renewables to be located. The Bennington region includes 14 towns and three villages. A draft of the formal energy plan resulting from the project will be in final draft in May. Maps will also be available on the web.

## **Regional update**

Mark Sciarrotta, VELCO Assistant General Counsel, gave the regional report, which can be viewed online at [http://www.vermontspc.com/library/document/download/5253/20160120\\_isonereport.pdf](http://www.vermontspc.com/library/document/download/5253/20160120_isonereport.pdf) .

Eric Johnson, ISO-NE Director of External Affairs, gave the ISO-NE report, which can be viewed online at [http://www.vermontspc.com/library/document/download/5270/vermont\\_system\\_planning\\_committee\\_johnson\\_presentation\\_january\\_20\\_2016.pdf](http://www.vermontspc.com/library/document/download/5270/vermont_system_planning_committee_johnson_presentation_january_20_2016.pdf) . He reported on changes underway in the Regional System Plan, which has been annual but may be on a cycle of up to three years going forward. The next RSP will not be published until 2017.

ISO-NE has published a paper on energy storage, with a focus on small-scale, rather than grid level storage. The paper provides a snapshot of market incentives existing today. ISO-NE may consider tariff changes in the future.

Mr. Johnson was asked whether the heat maps in the presentation include solar that is installed behind the meter. He stated that most New England solar is behind the meter. In response to a question about what percentage of projects in the generation queue actually get built, he stated that attrition has been very high over the years.

Mr. Johnson stated that the Request for Proposal issued by Massachusetts, Rhode Island and Connecticut addresses public policy needs, not reliability, though the process is outside the FERC Order 1000 public policy framework. Bids are due January 28, 2016.

## **Old business**

### **SOLAR SITING TASK FORCE**

Jon Copans, Deputy Commissioner, VT Department of Public Service, provided an update on the Solar Siting Task Force, which was required by Act 56 of the 2015 General Assembly and was charged with devising legislative proposals related to siting. (Final report, which had not yet been released at the time of the VSPC meeting, is now available at:

[http://solartaskforce.vermont.gov/sites/solarsiting/files/documents/final\\_report/Solar%20Siting%20Task](http://solartaskforce.vermont.gov/sites/solarsiting/files/documents/final_report/Solar%20Siting%20Task%20Force%20Final%20Report.pdf)

[k%20Force%20Report\\_Final\\_012216.pdf](#) .) Mr. Copans provided a high level review of the then-draft recommendations.

## **SOLAR PATHWAYS PROJECT**

David Hill, Vermont Energy Investment Corporation (VEIC), provided an update on the Department of Energy-funded Solar Pathways Project (presentation available at [http://www.vermontspc.com/library/document/download/5271/SMP%20Overview%20for%20VSPC%20Jan\\_2016.pdf](http://www.vermontspc.com/library/document/download/5271/SMP%20Overview%20for%20VSPC%20Jan_2016.pdf) ). Mr. Hill stated that Deena Frankel and Ms. Bailey had been participating in meetings, and encouraged others to become engaged.

## **NET METERING**

Ms. Bailey provided an update on the Act 99/net metering rule revision. She stated that the draft rule had been released in December, 2015, and the comment deadline had just passed. She described features of the draft.

## **INTERCONNECTION RULEMAKING**

Carolyn Anderson provided an update on the Rule 5.500 workshop process led by the PSD. The intention is to consolidate all the interconnection provisions in one revised rule, so that both net metering and other generation interconnection provisions would reside in Rule 5.500.

## **VERMONT WEATHER ANALYTICS CENTER UPDATE**

Mary Coombs of VELCO provided an update on VTWAC. She stated that the system portal was deployed in June and the project team met with stakeholders over subsequent months. A lightning potential index was added recently, but not enough storms have occurred since to perform significant validation. Operations has used the system to improve outage scheduling. Maintenance and construction can now better estimate how long ice bridges will last. Planning has a wealth of data available in one place. The system was the first to predict the storm that occurred on January 9, 2016, and did so more accurately than forecasts available at ISO-NE and wind turbine manufacturers. Accuracy in the system has been improved to 90-95%. Discussion of next steps for the project are now underway with the VELCO Board of Directors.

## **VSPC EVOLUTION**

Ms. Louiselle reported that VELCO will bring preliminary recommendations for VSPC evolution to the April meeting of the VSPC and will meet with stakeholders and VSPC committees in the interim to obtain input.

## **Project reports**

### **STATUS UPDATE OF REMAINING DEFICIENCIES**

**Connecticut River Valley:** Mr. Pr sum  reported that VELCO is current responding to discovery questions in the PSB docket seeking a certificate of public good (CPG) for the project. Site visits have been conducted. Technical hearings will take place in April.

**Northern area:** Mr. Pr sum  reported that VEC is considering a 46kV distribution upgrade in the Irasburg area.

**Rutland area:** Rip Kirby reported that GMP continues to collect data, but that the summer of 2015 was not indicative for summer peak. GMP is proceeding with controlling hot water customers' load, and work continues on the Stafford Hill area, with a project budgeted for Florence 46kV in 2017 or 2018.

**Hinesburg:** Ms. Jones reported that the GT Subcommittee will receive a report on the RES America battery storage analysis at its next meeting. GMP is working with VEIC to implement the energy efficiency analysis. GMP recently learned of VEC's asset management work on its Hinesburg substation and the two utilities may collaborate on a lower cost solution of benefit to both.

**PV-20:** Mr. Pr sum  stated that discovery is underway on the Vermont side of the project. New York permits have been submitted for regulatory approval.

**Structure Replacement Project:** Mr. Pr sum  reported that the SCI program has replaced more than 300 structures thus far.

### **Adjournment and next meeting**

The meeting was adjourned at 3:19 p.m. The next quarterly meeting is scheduled to be held from 9:30 a.m. to 4:00 p.m. on April 27, 2016, at the Courtyard Marriott in Middlebury.

## ATTENDANCE

\*Indicates voting member

\*\*Indicates alternate

### PUBLIC SECTOR

\*Michael Kirick (Commercial Rep)

### SUPPLY & DEMAND RESOURCES

Gillian Eaton (VEIC)

Carole Hakstian (VEIC)

\*Nathaniel Vandal (Generation Developer)

\*David Westman (VEIC)

### TRANSMISSION UTILITY (VELCO)

Mary Coombs (VELCO)

Bernadette Fernandez (VELCO)

\*Hantz Pr sum  (VELCO)

Mark Sciarrotta (VELCO)

### NON-VOTING MEMBERS

John Woodward (PSD)

Asa Hopkins (PSD)

Joan White (PSD)

### DISTRIBUTION UTILITIES PROVIDING TRANSMISSION (GMP, VEC)

Carolyn Anderson (GMP)

Kim Jones (GMP)

\*Steve Litkovitz (GMP)

Rip Kirby (GMP)

Dean Denis (VEC)

Mike Beaulieu (VEC)

Cyril Brunner (VEC)

### STAFF

Shana Louiselle (VELCO)

Bernadette Fernandes (VELCO)

### LARGE TRANSMISSION-DEPENDENT DISTRIBUTION UTILITIES (BED, WEC)

\*Munir Kasti (BED)

\*Bill Powell (WEC)

### GUESTS

Eric Johnson (ISO-New England)

Jim Sullivan, Bennington RPC

Jon Copans, Vermont Public Service Department

David Hill, Solar Pathways

Mary Coombs, VELCO

### TRANSMISSION DEPENDENT DISTRIBUTION UTILITIES (MUNICIPALS)

\*Melissa Bailey