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State of Vermont
Public Service Board

January 31, 2012

Patricia A. Hoffman
Assistance Secretary
Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy
1000 Independence Avenue SW. Washington, DC 20585

RE: Vermont's Comments on the U.S. Department of Energy's Preparation for the
2012 Congestion Study

Dear Assistant Secretary Hoffman:

On behalf of the Vermont Public Service Board ("PSB") and the Vermont Department of Public Service ("DPS" and, together with the PSB, "Vermont"), I am pleased to offer the following in response to your November 10, 2011 letter in which you invite comments regarding the Department of Energy's ("DOE") 2012 National Electric Transmission Congestion Study.

Vermont endorses the comments being submitted by the New England States Committee on Electricity ("NESCOE"). As NESCOE explains, the 2012 Study should conclude – as did the 2009 Study – that New England is not a "Congestion Area of Concern."

With these comments, Vermont supplements the NESCOE filing by providing additional, Vermont-specific information that further supports the determination that congestion is not a concern in New England. As described below, Vermont has proactively taken meaningful actions that serve to avoid congestion on the transmission grid.

Vermont's Statewide Energy Efficiency Utility

Vermont's statewide Energy Efficiency Utility ("EEU") program provides energy efficiency services to Vermonters throughout the state.¹ Efficiency Vermont has been delivering substantial energy-efficiency and peak-capacity savings for over ten years. In 2010, the efficiency measures implemented by Efficiency Vermont conserved 111,000 MWh, or 2.05 percent of Vermont's energy usage, and 16.3 MW of summer peak demand reduction (and 20.2 MW of winter peak demand reduction).² Vermont's investments in energy efficiency have contributed to a net reduction in Vermont's electric usage. From January 1, 2005 to December 31, 2010, state-wide energy usage decreased by approximately 2.67 percent.³

In 2009, the Vermont PSB changed the EEU structure from a three-year contract with the entity (VEIC) responsible for the large majority of the EEU's activities, to a longer-term Order of Appointment. The new structure will allow for improved long-term planning and coordination with Vermont's electric distribution and transmission utilities, and allow Efficiency Vermont to make longer-term commitments to efficiency investments as a resource in the New England capacity and energy markets.

Looking forward, the Vermont PSB has approved actual electric efficiency budgets for 2012, 2013, and 2014 of \$40.1, \$42.8, and \$45.9 million, respectively; by comparison, retail electric customers in Vermont spend approximately \$700 million annually on electricity.⁴ The PSB has also approved budgets to be used for planning purposes for the years 2015 through 2031. In addition, the PSB determined that Efficiency Vermont should continue geographic-targeting programs during 2012 – 2014, the purpose of which is to focus energy efficiency efforts in areas where distribution or transmission infrastructure upgrades may be capable of being deferred. The PSB is also working toward improved identification of areas that should be

¹Vermont Energy Investment Corporation ("VEIC") serves as an EEU throughout the state, operating under the tradename "Efficiency Vermont." The City of Burlington Electric Department ("BED") serves as an EEU in its service territory.

²These savings figures do not include savings from BED's efficiency programs, which saved approximately 6,500 MWh of energy in 2010.

³New net-metering projects also contributed to the apparent decline in energy usage. Net metering occurs "behind" the customer meter and therefore appears as reduced electric usage.

⁴Vermont's population is approximately 625,000.

geographically targeted; this year for the first time the Vermont System Planning Committee ("VSPC," further described below) recommended areas that should be targeted. The VSPC's recommendation is currently under consideration by the PSB.⁵

Long-Term Least-Cost Integrated Planning for Vermont's Transmission System

Over the last several years Vermont has taken significant steps to require long-range, least-cost integrated resource planning for the state's bulk transmission system. These efforts resulted from the PSB's review of the Northwest Vermont Reliability Project, which was the first major transmission infrastructure project in Vermont in a generation. The PSB approved the Project in an Order issued January 28, 2005. Consistent with the requirements of Vermont law (30 V.S.A. § 248(b)(2)), in its approval the PSB concluded that the Project was "required to meet the need for present and future demand for service which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy-efficiency and load management measures" However, the PSB noted that:

we are deeply troubled that, in the present case, we have no viable option but to approve a transmission solution for a reliability problem that might have been either deferred or more cost-effectively addressed through demand-side measures or local generation, if there had been sufficient advance planning by VELCO and its owners. To avoid repeating this dilemma in a few short years, we have concluded that we should open a separate investigation into ways to ensure that cost-effective non-transmission alternatives are given full, fair, and timely consideration, and to determine methods for implementing (including funding) those non-transmission alternatives that bear lower societal costs than traditional transmission projects. In deciding to open this investigation, our fundamental goal is to make sure that VELCO does not come to us at the last minute (in terms of the horizon for transmission-system planning) for approval of a project that could have been deferred or displaced by

⁵The PSB's order on the electric efficiency budgets and decision to continue geotargeting efforts is available at: <http://psb.vermont.gov/sites/psb/files/orders/2011/EEU-2010-06%20DRP%20and%20AttachA.pdf>.

more cost-effective alternatives.⁶

The Board opened the new investigation in Docket 7081, which culminated in a Memorandum of Understanding ("MOU") signed by many, but not all, of the parties to the proceeding. In an Order issued June 20, 2007, the Board approved the MOU, with certain conditions and modifications. For the reasons explained in its Order, the Board concluded that the transmission planning process set forth in the MOU substantially improves upon the then-existing planning process for Vermont's transmission system.⁷

The Docket 7081 MOU and Order established the Vermont System Planning Committee. The members of the VSPC include representatives of each Vermont electric distribution and transmission utility, and three public members. In addition, three non-voting members participate in the VSPC, including Vermont's Energy Efficiency Utility, the Sustainably Priced Energy Enterprise Development Facilitator, and the Vermont Department of Public Service.⁸

The VSPC and its associated planning process represent a new approach to addressing reliability issues in Vermont's electric transmission system. The process is designed to facilitate full, fair and timely consideration of cost-effective non-transmission alternatives to new transmission projects. The new approach, perhaps unprecedented nationally, has a number of features that transform the way Vermont utilities interact with each other and the public in planning solutions to electric system reliability issues, including:

- A transparent process that includes access by the public and participants to all aspects of the VSPC's activities and (non-CEII) information, and an effective meeting-notice process.
- A formal structure for public involvement in the planning committee through Public Service Board appointment of three

⁶PSB Docket 6860, Order of 1/28/05 at 11, available at http://psb.vermont.gov/sites/psb/files/docket/6860NRP/6860_fnl_1-28-05.pdf (emphasis in original).

⁷The Docket 7081 MOU is available at <http://psb.vermont.gov/docketsandprojects/electric/7081/memorandumofunderstanding>; the Docket 7081 Order is available at <http://psb.vermont.gov/sites/psb/files/orders/2007/7081finalorder.pdf>.

⁸The PSB recently approved several MOU modifications, including changing the EEU's status in the VSPC from non-voting to voting.

public members to the VSPC representing the interests of residential consumers, commercial and industrial consumers, and environmental protection, respectively.

- A high level of public involvement in the planning process based on principles of effective public engagement.
- A long-term planning horizon of 20 years.
- The ability to take advisory votes regarding which utilities are responsible for projects and how costs are allocated for non-transmission alternatives.
- Procedures for facilitating assignment of responsibility for planning and implementation work.
- An explicit process for analysis and explicit standards for evaluation of cost-effective non-transmission alternatives to solving reliability deficiencies.
- Clearly established expectations and processes for coordination among stakeholders, including all utilities, public representatives, the Department of Public Service, the Energy Efficiency Utility, and the Sustainably Priced Energy Enterprise Development Facilitator.
- Appropriate consideration of market-based approaches to assessing non-transmission alternatives, including market testing using RFPs or public solicitations of interest, as well as an open-door policy for encouraging potential vendors to approach the participants to discuss projects.

Further information on the VSPC is available at the VSPC website: www.vermontspc.com.

Consistent with the requirements of the Docket 7081 MOU, Vermont statute now requires that a transmission-only utility prepare a long-range least-cost integrated resource plan.⁹ The statute provides that "[t]he objective of the plan shall be to identify the potential need for transmission system improvements as early as possible, in order to allow sufficient time to plan and implement more cost-effective nontransmission alternatives to meet reliability needs,

⁹Vermont law has long required the state's distribution utilities to conduct least-cost integrated resource planning. *See* 30 V.S.A. § 218c.

wherever feasible."¹⁰ The statute further provides that the transmission plan must look ahead at least 10 years, and that the plan must:

- (A) identify existing and potential transmission system reliability deficiencies by location within Vermont;
- (B) estimate the date, and identify the local or regional load levels and other likely system conditions at which these reliability deficiencies, in the absence of further action, would likely occur;
- (C) describe the likely manner of resolving the identified deficiencies through transmission system improvements;
- (D) estimate the likely costs of these improvements;
- (E) identify potential obstacles to the realization of these improvements; and
- (F) identify the demand or supply parameters that generation, demand response, energy efficiency or other nontransmission strategies would need to address to resolve the reliability deficiencies identified.¹¹

Vermont has one transmission-only utility, the Vermont Electric Power Company ("VELCO"). As a result of the Docket No. 7081 MOU, the efforts of the VSPC, and the requirements of 30 V.S.A. § 218c(d), VELCO has now completed two Long-Term Transmission Plans, one in 2006 and one in 2009.¹²

Vermont Transmission Infrastructure Improvements

A number of transmission infrastructure improvements are being undertaken in Vermont, subsequent to the DOE's 2009 determination. In February 2009 the PSB approved the Southern Loop Coolidge Connector project, which includes the following elements: a new 51-mile 345 kV transmission line; a new one-mile 345 kV transmission loop; two new 345 kV substations; and expansion of an existing 345 kV substation. In addition to the Southern Loop project, VELCO is actively pursuing approval and construction of six new substations and expansion of a

¹⁰30 V.S.A. § 218c(d)(1).

¹¹30 V.S.A. § 218c(d)(1).

¹²The Plans are available at <http://www.velco.com/LongRange/Pages/default.aspx>.

seventh, existing substation.¹³

In 2010, in part due to the uncertainty around the continuing operation of Entergy's Vermont Yankee nuclear plant, VELCO and the DPS encouraged ISO-NE to expand its planning perspective, resulting in the VT-NH Needs Assessment. The planning process expanded from a single state to a larger electrically contiguous area. The Needs Assessment is the first step, followed by a solution study and then a recommended implementation plan. Of note, the VT-NH Needs Assessment, for the first time in an ISO-NE analysis, considered the value and appropriateness of non-transmission alternatives ("NTAs") in solving system needs.

Promotion of Distributed Renewable Generation Facilities

Vermont has implemented two programs that promote the development of distributed renewable generation: net-metering and the Sustainably Priced Energy Enterprise Development ("SPEED") program.

Vermont's net-metering program authorizes net-metering of renewable generation facilities up to 500 kW. In 2011 the Vermont legislature added additional credits for solar net-metering facilities, in recognition of the summer-peak-reduction benefits provided by solar projects.

The Vermont legislature enacted the SPEED program, codified at 30 V.S.A. Chapter 89, with the goal of "supporting and providing incentives for small, distributed renewable energy generation, including incentives that support locating such generation in areas that will provide benefit to the operation and management of the state's electric grid."¹⁴ The SPEED program requires Vermont electric distribution utilities to meet total, incremental statewide growth in electric retail sales between January 1, 2005, and January 1, 2012, through new renewable resources. In addition, at least five percent of the 2005 total electric sales must be provided by renewable resources unless the amount of new renewable resources exceeds 10 percent of total

¹³Information on the Southern Loop and the seven substation projects is available on VELCO's web site at <http://www.velco.com/Projects/Pages/default.aspx>. The PSB's order approving the Southern Loop project is available at <http://psb.vermont.gov/sites/psb/files/orders/2009/7373finalorder.pdf>.

¹⁴30 V.S.A. § 8000(a)(7).

statewide electric retail sales for calendar year 2005. The SPEED provisions also establish a goal that 20 percent of total statewide electric retail sales by 2017 are to be generated by new renewable resources.

In 2009 the Vermont legislature modified the SPEED program to include a statewide standard-offer program, which required the PSB to establish prices for long-term power purchase contracts for SPEED projects. The standard-offer program is open to SPEED projects of 2.2 MW or less, with a maximum program cap of 50 MW. The program is fully subscribed with 50 MW of projects, and has a lengthy waiting list.¹⁵

At the request of Vermont's legislature, the PSB conducted a study on implementing a Renewable Portfolio Standard ("RPS") in the state. The legislature is currently considering implementing one this year.

Consideration of Non-Transmission Alternatives

The 2005 Vermont General Assembly enacted Act 61, entitled "An Act Relating to Renewable Energy, Efficiency, Transmission and Vermont's Energy Future." That Act established the following as state policy:

It shall be the policy of the state of Vermont, in negotiations and policy-making at the New England Independent System Operator, in proceedings before the Federal Energy Regulatory Commission, and in all other relevant venues, to support an efficient reliability policy, as follows:

- (1) When cost recovery is sought through region wide regulated rates or uplift tariffs for power system reliability improvements, all available resources - transmission, strategic generation, targeted energy efficiency, and demand response resources - should be treated comparably in analysis, planning, and access to funding.
- (2) A principal criterion for approving and selecting a solution should be whether it is the least-cost solution to a system need on a total cost basis.

¹⁵The Vermont legislature is currently considering proposed statutory revisions that would expand the standard-offer program beyond the current 50 MW cap.

(3) Ratepayers should not be required to pay for system upgrades in other states that do not meet these least-cost and resource-neutral standards.

(4) For reliability-related projects in Vermont, subject to the review of the public service board, regional financial support should be sought and made available for transmission and for distributed resource alternatives to transmission on a resource-neutral basis.

(5) The public service department, public service board, and attorney general shall advocate for these policies in negotiations and appropriate proceedings before the New England Independent System Operator, the New England Regional Transmission Operator, the Federal Energy Regulatory Commission, and all other appropriate regional and national forums. This subdivision shall not be construed to compel litigation or to preclude settlements that represent a reasonable advance to these policies.

(6) In addressing reliability problems for the state's electric system, Vermont retail electricity providers and transmission companies shall advocate for regional cost support for the least cost solution with equal consideration and treatment of all available resources, including transmission, strategic distributed generation, targeted energy efficiency, and demand response resources on a total cost basis. This subdivision shall not be construed to compel litigation or to preclude settlements that represent a reasonable advance to these policies.

As noted above under the "Long-Term Least-Cost Integrated Transmission-System Planning" topic, Vermont has diligently sought to promote the full, fair and timely consideration of cost-effective NTAs within the state's planning and regulatory processes. Vermont has also advocated at the regional and national levels for resource-neutral regional financial support for solutions to reliability concerns; to date, these efforts have not achieved the desired result.

Among the topics on which your November 10, 2011, letter solicits comments is "Obstacles to the removal or mitigation of significant transmission congestion." Although currently there is not significant transmission congestion in New England, to maintain this condition in the most cost-effective manner requires that cost-effective NTAs receive equal consideration with traditional transmission investment and equal opportunity for regional financial support. Without equal opportunity for regional funding, cost-effective NTAs are

unlikely to be implemented. Therefore, the lack of equitable funding opportunities for NTAs is a major obstacle to the avoidance and mitigation of future transmission congestion.

Conclusion

Vermont has worked diligently to address reliability concerns through least-cost integrated resource planning, substantial statewide investment in cost-effective energy efficiency programs, and encouragement of distributed renewable generation. These efforts, in conjunction with the actions of the other New England states and ISO-New England, have helped our region mitigate and avoid congestion concerns. To continue to do so in as cost-effective a manner as possible, regional financial support must be made available to cost-effective NTAs on a resource-neutral basis.

Thank you again for the opportunity to submit these comments to assist the DOE in its 2012 Study.

Sincerely,

/s/James Volz

Chairman