

Background and observations to support discussion on Docket 7081/VSPC evolution

History, timeline

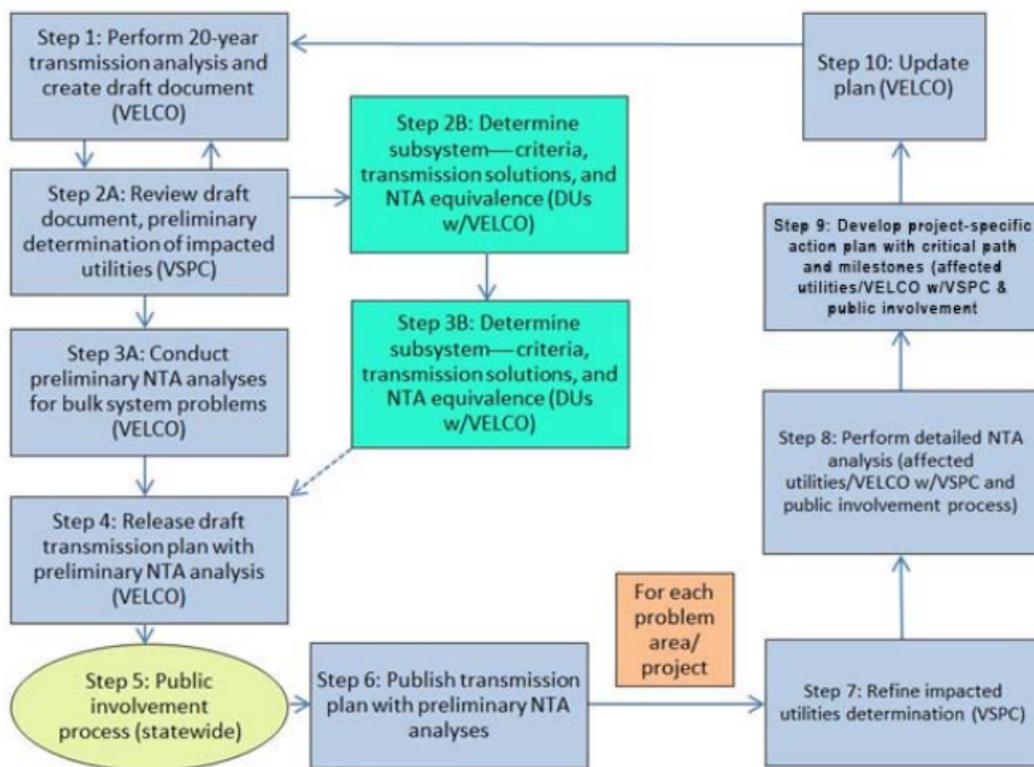
- 1/28/2004 Docket 6860 (Northwest Reliability Project or NRP) order signals intent to open a docket to consider integrated resource planning requirement for transmission planning
- 2005 Legislative session, Act 61 establishes integrated resource planning requirement for transmission owners and operators
- 7/20/2005 Board opens Docket 7081 to determine transmission IRP process
- 6/20/2007 Board issues final order approving (with modifications) Docket 7081 Memorandum of Understanding (MOU)
- 10/2007 VSPC holds first meeting
- 2008 VSPC files first annual geographic targeting recommendations with PSB
- 6/20/2008 VSPC files NTA screening tool with PSB
- 7/1/2009 First long-range transmission plan submitted under 7081 MOU
- 12/21/2009 VSPC submits required two-year evaluation of Docket 7081 process
- 7/1/2012 Second long-range transmission plan submitted under 7081 MOU
- 9/27/2012 VSPC files modification to NTA screening tool with PSB
- 4/1/2013 VSPC files first geotargeting recommendations under the standard offer screening framework
- 10/4/2013 VSPC submits process improvements to better align geographic targeting provisions of standard offer and energy efficiency
- 2/20/2014 Distribution issues incorporated into standard offer screening framework for geographic targeting

Process as defined in Docket 7081 MOU

What to notice:

- Identification of reliability deficiencies by utilities defines the work of the VSPC and initiates each cycle
- Process is collaborative with roles for VELCO, DUs, VSPC
- Public engagement at two stages: planning (5) and solutions (9)

Transmission Planning Process Including Non-Transmission Alternatives



Step 3A is critical to the process since nearly all the VSPC’s subsequent focus is on reliability issues that pass “preliminary NTA analysis[,]” defined as “a simple screening analysis to determine if a detailed NTA Analysis should be conducted” (MOU at 51). Following PSB approval of the MOU, the VSPC was required to develop an NTA screening tool to determine which reliability deficiencies become the focus of the VSPC/7081 process, and which are simply the subject of periodic information updates by the lead utility to the VSPC (and the Board and Department through the VSPC annual report).

Consequently the VSPC has no obligations with regard to projects arising for reasons other than criteria violations, such as asset condition, merchant projects, market efficiency projects, or public policy projects.

With respect to grid transformation, the one clear connection between the existing process and the anticipation of future trends is the significant VSPC role in forecasting. The VSPC plays an explicit role in collaborating with VELCO on the load forecast that drives the long-range transmission plan. Any analysis of future trends and grid impacts of generation, demand response, energy efficiency and new technologies would seem to fall within the VSPC's existing role in collaboration on the Vermont load forecast.

Order opening Docket 7081, 7/20/2005

Docket focuses on least-cost integrated planning:

In Docket No. 6860, the Public Service Board ("Board") approved, with substantial conditions and modifications, a transmission system upgrade proposed by VELCO and Green Mountain Power Corporation. In that Order, the Board concluded that it had:

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 a repeat of this situation, the Board announced in the Docket 6860 Order that it would open a new investigation into the least-cost integrated resource planning obligations of VELCO and its owners. (Docket 7081 opening order, 7/20/2015, at 1.)

Major purpose was to ensure consideration of non-transmission alternatives:

As we stated in that Order (6860), this new docket will be an

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 our investigation, we will examine whether VELCO's load forecasting suffers from deficiencies that compromise VELCO's ability to consider non-transmission alternatives in a timely manner.

...potential roles for entities other than VELCO — in particular, the Energy Efficiency Utility and Vermont's distribution utilities — in evaluating and implementing non-transmission alternatives to traditional transmission system upgrades. This review will include:

the extent, if any, to which Vermont's distribution utilities have been, and should be, undertaking their planning and other associated activities

(such as issuance of Act 250 "ability to serve" letters) in conjunction with VELCO's planning. (Docket 7081 opening order, 7/20/2015, at 2-3.)

Excerpts from 30 V.S.A. § 218c (Act 61, 2005 General Assembly)

Objective of the long-range transmission plan

(d)(1) Least cost transmission services shall be provided in accordance with this subsection. ... shall prepare and file with the Department of Public Service and the Public Service Board a Transmission System Plan that looks forward for a period of at least 10 years.... The 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, wherever feasible. The Plan shall: [required elements enumerated in (A)-(F) including "identifying existing and potential transmission system by location within Vermont" and providing information about severity, date of need, and transmission and non-transmission solutions with cost estimates.]

Notice, public hearing, and coordination requirements and public policy favoring NTAs

Remaining paragraphs (2)-(7) establish public hearing and notice requirements, coordination with DUs and PSD, frequency of updates (at least three years), public policy preference or NTAs where they serve the public good, relationship of transmission plan to utility IRPs, PSD position to be reached following public hearing where transmission has "significant land use ramifications.

Who is required to participate in the transmission planning process?

(d)(1)Least cost transmission services shall be provided in accordance with this subsection. Not later than July 1, 2006, any electric company that does not have a designated retail service territory and that owns or operates electric transmission facilities within the State of Vermont, in conjunction with any other electric companies that own or operate these facilities [30 V.S.A. § 218c]

Excerpts from Docket 7081 final order

Purpose of the docket

"The Public Service Board ("Board") opened this docket on July 20, 2005, to investigate the obligations of ... VELCO ... and the Vermont electric distribution utilities with respect to least-cost integrated resource planning for VELCO's transmission system." (6/20/2007 at 2, emphasis added)

Applicability to non-signatories of the Memorandum of Understanding

... pursuant to our authority under Sections 203, 209 and 218c of Title 30,30 we conclude, and will require, that the non-signatory distribution utilities must comply with

the obligations that the MOU assigns to distribution utilities. [Docket 7081 final order, 7/20/2005 at 35, emphasis added.]

Goals reflected in MOU

Different parties brought different objectives and priorities to the table in negotiating the MOU. Some are broader than the Board and legislature's objectives. Interests reflected in the MOU include:

- Establish procedure for compliance with planning law & PSB order
- Timely, effective NTA screening & planning; "least-cost planning"
- Delineate clear responsibilities among utilities for planning and cost allocation (avoid another Lamoille)
- Make grid planning more transparent to enable stakeholders to participate
- Ensure robust public engagement to prevent surprises in which a project is proposed in an area where the neighbors did not see it coming
- Update "area specific collaboratives"
- Avoid cumbersome process; ensure solution is simple, non-bureaucratic
- Independence from utilities; citizen control (CLF's position not accepted by PSB)
- Utilities play a central role in the planning process, with collaboration, in light of their expertise and obligation to serve

Observations

- 30 V.S.A. § 218c and Docket 7081 had two focuses:
 - Integrated resource planning for transmission, with the goal of ensuring NTAs received "full, fair and timely consideration."
 - Greater transparency of the process and public engagement.
- The statute applies to anyone owning or operating transmission facilities in VT.
- The Docket 7081 process applies to all distribution utilities in Vermont insofar as all DUs are defined as "affected utilities" under the Docket 7081 MOU.
- The process was designed around early identification of "reliability deficiencies" so NTAs could be considered in a timely manner.
- The definition of "reliability deficiency" is narrowly focused on violations of NERC criteria:

"Reliability Deficiency" or "Reliability Deficiencies" means an existing or forecasted violation, pre- or post-contingency, of applicable Bulk Transmission

System or Subsystem design or operating criteria, with consideration given to the reliability and availability of individual system elements. (Docket 7081 MOU at 52)

- The VSPC NTA screening tool implements the reliability deficiency definition with the result that only issues that are load growth-related become the focus of VSPC work. Those criteria violations that cannot be resolved by reducing load (or adding supply) are screened out, such as voltage stability and asset condition. In some cases, such as the Hinesburg issue, an individual utility has brought a matter to the table that could technically screen out, but that would benefit from input of the group.

Conclusions

- The enabling language (law, order and MOU) is narrowly focused on “reliability deficiencies,” which are defined as violations of operating criteria. As such other types of transmission upgrades are not included in any part of the process except...
- Under FERC Order 1000, ISO-NE will solicit competitive proposals for resolving reliability deficiencies (i.e., criteria violations identified in ISO-NE’s studies). Should a non-incumbent provider be selected to perform the work, it appears they would “own... or operate... electric transmission facilities within the State of Vermont” and thus would be subject to the planning requirement in 30 V.S.A. § 218c. Since these providers must obtain a certificate of public good from the Vermont PSB, the PSB could potentially require them to participate in the VSPC process in some manner, but the timing and mechanism are not at all clear and the expectation of engaging them may be unrealistic or completely infeasible in the context of the competitive process and federal rules
- As currently embodied in regulatory documents, the VSPC’s focus is not on “grid reliability” writ large; it is on one aspect of grid reliability: criteria violations arising from load growth. To the extent that some other type of transmission project were to cause a reliability deficiency (e.g., a merchant transmission project resulted in a criteria violation occurring in the Vermont system), that other project might result in a transmission upgrade in Vermont for which the problem and the solution were specified by ISO-NE. No role, other than stakeholder information, seems obvious in this scenario.
- One logical connection exists between the VSPC establishing language and the concept of a broader role in planning related to grid transformation: load forecasting. Collaborative load forecasting was a significant focus by the Board and Department in Docket 7081. As the transformation proceeds to a more distributed grid, with greater contributions by intermittent renewables, demand response and energy efficiency, forecasting is increasing a lens for understanding the changes underway.

VSPC adaptations undertaken without change of regulation

In recent years, the VSPC has expanded its agenda. In some cases, the Board and Legislature have assigned work to the VSPC (standard offer and energy efficiency geotargeting recommendations, development of the screening framework in Docket 7873, nomination of a DU representative to the Solar Siting Task Force). In other cases, the VSPC has recognized the need for stakeholders to understand the broader context of grid planning, in which case informational items have been included in meeting agendas on regional issues, merchant transmission and grid modernization. Lastly, as ISO-NE has been given responsibility for bulk system planning, and operated the grid and the regional markets in ways that greatly impact Vermont, the VSPC has become more active in communication with ISO-NE and attempted to better inform stakeholders about regional matters.

Current and potential work

Scenarios:

1. Maintain current process as is. Continue forecasting and GT as main work. Keep the existing transmission and non-transmission planning process on standby for when and if it is needed. Adapt within the current framework.
2. Make minor modifications to increase focus and efficiency without fundamental change in the process. Examples may include: more frequent electronic updates of the long-range plan (without regulatory mandate to do so), change in meeting frequency, improved outreach/public engagement, etc.
3. Redefine “reliability deficiency” and the screening process in relation to grid transformation. Consider a model in which VSPC plays a defined role as a planning hub in grid transformation.

Item #	Current and potential work	Formal Charge	Currently Done	Has/Needs Regulator Approval
1	Screening of transmission and subtransmission reliability issues	Yes	Yes	Has
2	Formal input to long-range plan	Yes	Yes	Has
3	Collaboration on forecasting	Yes	Yes	Has
4	GT energy efficiency	Yes	Yes	Has
5	GT standard offer	Yes	Yes	Has
6	Screening of distribution reliability issues	Yes	Yes	Has
7	Stakeholder engagement: public information about identified reliability issues	Yes	Yes	Has
8	Stakeholder engagement: public information about other grid issues	No	Limited	No
9	Coordination with ISO-NE on LRP	Yes	Yes	Has
10	Other coordination with ISO-NE	No	Yes	No
11	Load forecasting	Yes	Yes	Has
12	Planning and coordination for distributed, two-way grid	No	Limited	?
13	Publish three-year updates to transmission plan	Yes	Yes	Has
14	More frequent dynamic/electronic updates to transmission plan	No	No	No
15	Mission/focus of attention: load growth related projects (reliability narrowly defined)	Yes	Yes	Has
16	Mission/focus of attention: Reliability broadly defined (e.g., grid transformation)	No	Limited	?
17	Expand membership to include missing stakeholders if any	No	No	Depends on model
18	Adjust meeting frequency as needed	VSPC rules only	No	VSPC rules only
19	Define role with regard to grid transformation	No	No	?
20	Calibrate/recalibrate relationship between VSPC process and utility IRPs.	Yes	Maybe	No

<i>Item #</i>	<i>Current and potential work</i>	<i>Formal Charge</i>	<i>Currently Done</i>	<i>Has/Needs Regulator Approval</i>
21	Calibrate/recalibrate relationship between VSPC process and distribution issues, as raised by D. 7873 screening framework	Limited	Limited	?