

Vermont System Planning Committee

Geographic Targeting Process Improvement

Introduction

This spring and summer, the Geographic Targeting Subcommittee (GTS) of the Vermont System Planning Committee (VSPC) undertook a process analysis and improvement effort to identify ways to better coordinate the requirements of three public policy streams:

- Reliability planning for the transmission and distribution system through the Docket 7081 Memorandum of Understanding (7081 MOU).
- Geographic targeting of energy efficiency, which includes recommendations developed through the VSPC process and filed by the VSPC for areas to be geotargeted each year.
- Recommendation of areas where standard offer generation projects could provide “sufficient benefit to the operation and maintenance of the grid” to warrant capacity above the annual program cap, as determined through the Docket 7873 Attachment II Screening Framework.

VSPC participants recognized that the three processes are not completely coordinated and, in fact, include some potentially conflicting requirements. The GTS undertook, therefore, to map the existing processes and attempt to coordinate them more effectively. The goals of the effort were:

- Develop a timeline that harmonizes the three processes as efficiently as possible.
- Eliminate duplication of effort wherever possible.
- Identify conflicting requirements and describe any changes in law, Board order, VSPC procedure or practice needed to optimize the process.
- Communicate the process clearly to a wide variety of stakeholders, including all participants in the process.

Participants in the process analysis and recommendation effort included: Green Mountain Power (GMP), Public Service Department (PSD), Renewable Energy Vermont (REV), VELCO, Vermont Energy Investment Corporation (VEIC), Vermont Public Power Supply Authority (VPPSA), VSPC public members, and Washington Electric Cooperative (WEC).

The VSPC produced three documents:

1. **VELCO Long-Range Transmission Plan Process Map.** This flowchart depicts the timing and roles in the drafting, publication and review cycle for VELCO’s Long-Range Transmission Plan, and their interrelationship to the geotargeting processes for standard offer and energy efficiency. This flowchart is important to understanding the process because it is the primary process by which reliability deficiencies on the bulk transmission system are identified and screened for the potential to be resolved with non-transmission alternatives. It also provides an illustration of the expected timing of the proposed geographic targeting process relative to the Long-Range Transmission Plan.
2. **Geographic targeting Process Map.** This document depicts the annual processes for geographic targeting of energy efficiency and standard offer outside the cap. (The process is actually longer than one year for any given reliability issue.) The process is also presented below in table format. This process map seeks to integrate the two geographic targeting requirements by addressing them during the development of the reliability plan for each reliability issue identified by VELCO and the distribution utilities.
3. **Process Coordination: Docket 7081 & Docket 7873 Interrelationship.** This graphic depicts the relationship between the “project-specific action plans” required by the Docket 7081 MOU and the “reliability plans” required by the Attachment II Screening Framework in Docket 7873.

Assumptions

The processes in question focus solely on Vermont’s approach to reliability planning and do not include economic or market-driven transmission projects related to getting power from the generator to the grid or to consumers. This narrow view increasingly strikes some stakeholders as an artificial limitation that inhibits a more holistic view of Vermont’s electric system, particularly in light of statutory goals for 75% of electricity generated from renewable sources by 2032. Nevertheless, the focus on reliability planning is necessary and appropriate given the current statutory and regulatory structure and programs.

The reliability issues under discussion in these processes are those that have “screened in,” meaning that they have been determined to have the potential to be resolved through energy efficiency and/or other non-transmission alternatives, such as generation or demand response (or a hybrid of transmission with efficiency and/or generation). “Screened in” refers to the application of one of two screening tools. For bulk and predominately bulk transmission issues, the relevant screening tool is the one adopted by the VSPC and submitted to the PSB in Docket 7081. For distribution issues, the relevant screening tool is the one adopted in Docket 6290, Distributed Utility Planning. For sub-transmission issues, either the 7081 screening tool or the 6290 screening tool may be used, and the distribution utility will need to justify its rationale for tool selection.

The process analysis and recommendations seek to implement current policies—least-cost planning for transmission and distribution, and geographic targeting of energy efficiency and standard offer that provides “sufficient” reliability benefit. The effort considered, but did not focus on, whether changes in those policies would produce better coordination or improved outcomes. The three policy streams have been developed somewhat independently, leading at times to significant coordination challenges, and future efforts could benefit from greater integration of mandates.

VELCO Long-Range Transmission Plan Process Map Overview

The following section presents the VELCO LRTP Process Map in table form and identifies the changes proposed to the existing process.

Key: ■ *Proposed changes from current process (green text, italic type)*

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|----|-------------------|-------|------------------------------------|
| T | transmission | L RTP | VELCO Long-Range Transmission Plan |
| D | distribution | DU | distribution utility |
| EE | energy efficiency | GT | geographical targeting |
| | | GTS | VSPC Geotargeting Subcommittee |

# (from flowchart)	Description	Timing
1	EEU provides updated EE forecast as required by Docket 7081 MOU	Forecast created via the EEU Demand Resource Plan Proceeding
2	VELCO performs studies (with ISO) to identify bulk and predominantly bulk system deficiencies	Year 1—July-December
3	DUs provide information about subsystem deficiencies to VELCO for inclusion in LRTP	Year 1—July-September
4	VELCO publishes VSPC draft of LRTP. <ul style="list-style-type: none"> • IDs reliability deficiencies • Applies VSPC screening tool to determine need for full NTA analysis/Reliability Plan 	Year 1—December

# (from flowchart)	Description	Timing
5	Full VSPC reviews and provides feedback on LRTP including: <ul style="list-style-type: none"> System level designation (bulk, predominantly bulk, subsystem, predominantly subsystem) NTA screening results 	Year 1—December through Year 2—February
6	VSPC confirms affected and lead utility determination	Year 2—March-May <i>Change: screening and lead/affected utility designation moved up from Sept to May/June so they occur based on the VSPC draft of the LRTP and allow sufficient time for reliability plan development.</i>
7	VELCO incorporates VSPC input into LRTP, publishes public draft, conducts outreach, incorporates public input, files final LRTP with PSB	Year 2—March through July 1 (filing deadline)
8	Affected utilities draft Project-Specific Action Plans (PSAPs)	Year 2—June-September
9	VSPC reviews PSAPs	Year 2—September quarterly meeting

GT Process Map Overview

The following section presents the GT Process Map in table form and identifies the changes proposed in the process.

Key: ■ *Proposed changes from current process (green text, italic type)*

T	transmission	LRTP	VELCO Long-Range Transmission Plan
D	distribution	DU	distribution utility
EE	energy efficiency	GT	geographical targeting
		GTS	VSPC Geotargeting Subcommittee

# (from flowchart)	Description	Timing
1	Identification of system constraints.	
1a	DU identifies D constraint. DU identifies subT constraint.	Can occur at any time. DUs often identify constraints as part of Integrated Resource Planning process VELCO seeks subT info from DUs in summer of year preceding each LRTP update. See LRTP Process Map.
1b	VELCO identifies bulk T or predominantly bulk T constraint.	VELCO identifies in preparing LRTP. See LRTP Process Map.

# (from flowchart)	Description	Timing
2	VSPC reviews screening of constraints (“screening in” for full analysis/reliability plan; “screening out” for T and/or D solution).	<i>Change: screening and lead/affected utility designation moved up from Sept to May/June so they occur based on the VSPC draft of the LRTP and allow sufficient time for reliability plan development.</i>
2a	VSPC GTS reviews and makes recommendation with regard to screening designation to full VSPC.	<i>May meeting.</i>
2b	Full VSPC receives and acts on GTS recommendation. Full VSPC confirms or revises “affected utility” and “lead utility” designation.	<i>June meeting.</i>
3	Utilities & EEU update forecast and GT analysis	
3a	Utilities update load forecast and analysis of need for previous GT areas and propose new GT areas (if any) (VELCO/DUs for bulk/predominantly bulk T; DUs for subT and D)	<i>May through early September</i> <i>Change: extend from August to September to ensure peak day is included in VELCO/DU/EEU review</i>
3b	EEU, in consultation with DUs and VELCO, develops or provides feedback on Max. Achievable EE Savings Potential. Develops high-level estimated costs for areas identified by utilities. Provides status and cost savings updates for current EE GT areas.	<i>May through early September</i> <i>Change: extend from August to September to be consistent with 3a.</i>
3c	VSPC GTS reviews output of 3a and 3b in consultation with VSPC Forecasting Subcommittee. Recommends continuing or stopping EE GT for current areas. Recommends developing Reliability Plans in any areas of potential new GT.	<i>September</i> <i>Change from mid-late August consistent with 3a and 3b.</i> <ul style="list-style-type: none">• <i>Recommendation for developing Reliability Plan is new, consistent with D 7873</i>
3d	Full VSPC reviews recommendations of GTS for (1) areas needing new Reliability Plans, (2) stopping EE GT in any areas where analysis shows EE GT should be discontinued. VSPC makes recommendation to PSB.	<i>Early October special meeting</i> <i>Change: Move VSPC determination regarding current area geographic targeting from December to October to inform EE program activity for following year, DU need to develop Reliability Plan</i>
3e	PSB receives and acts on full VSPC recommendation.	<i>Late October/ Early November</i> <i>Change: PSB decision timeframe changes to inform EE program activity for following year (current areas); require utility to develop Reliability Plan</i>
3f	PSB issues order.	<i>Late October/ Early November</i> <i>Change: See 3e.</i>

# (from flowchart)	Description	Timing
4	Reliability plan development	<i>Change: the process described in this section is newly developed to implement D 7873 Attachment II Screening Framework</i>
4a	Affected utilities (led by lead DU) develop Reliability Plans with input from VSPC and stakeholders.	<ul style="list-style-type: none"> • October-March
4b	EEU provides more detailed analysis and recommendation EE savings potential and associated costs for GT areas. Any EE GT would be planned to start at the beginning of the next calendar year.	<ul style="list-style-type: none"> • November to March <i>Change: This process removes the GT budget and targets from the Demand Resource Plan proceeding process. The timing is intended to allow for sufficient EE program design.</i>
4c	GTS provides input on reliability plans including detailed EE recommendations. Makes recommendation to full VSPC.	December-February
4d, 4e	VSPC receives and acts on recommendation of GTS. Affected utilities present schedule if reliability plan is not ready.	March quarterly meeting
4f	DUs file reliability plans with PSB	April 1
5	VSPC Annual Report to PSB and PSD	
5a	DUs prepare status updates on all Reliability Plans/Project-Specific Action Plans for inclusion in VSPC annual report	Mid-December
5b	VSPC drafts, reviews and submits Annual Report including status of Reliability Plans, Project-Specific Action Plans and EE GT	Mid-December-Feb. 15 (deadline)
6	Standard offer process	
6a	PSB receives DU reliability plans including standard offer and EE GT components	April 1
6b	Stakeholders comment on reliability plans and funding mechanism	May 1
6c	Board issues decision on whether and how much GT transmission to solicit outside the standard offer cap including amount, cost and targets for EE GT for the next year	June 1
6d	RFP issued by Board for standard offer outside the cap	July 1

Process Coordination: Docket 7081 & Docket 7873 Interrelationship Overview

The following section explains the Process Coordination graphic, which depicts the relationship between the process required by Docket 7081 (least-cost planning for transmission) and the process required by Docket 7873 with respect to geographical targeting of standard offer outside the annual cap.

The large outer rectangle depicts the process established in the Docket 7081 MOU. The smaller, inner rectangle depicts the reliability plans required by Docket 7873 Attachment II Screening Framework. The purpose of this graphic is to help stakeholders (including regulators, utilities, developers, VSPC members, and the public) understand the relationship between these two complex and interdependent process.

The following observations about the process are represented in the graphic:

- The Docket 7081 process is initiated by the identification of bulk and predominantly bulk system reliability deficiencies in the VELCO LRTP every three years. Deficiencies could also be identified outside the LRTP cycle through studies by ISO-New England, VELCO or some other entity.
- The Docket 7081 MOU (and 30 V.S.A. §218c) specify a three-year update cycle that started with the 2006 VELCO LRTP. Therefore the depicted cycle begins July 1 of 2012, 2015, etc., with the publication of the LRTP update.
- Distribution and sub-transmission constraints are not subject to the Docket 7081 process, but are subject to the Docket 7873 process. Therefore the center rectangle, but not the outer rectangle, is relevant to distribution and sub-transmission constraints.
- Project-specific action plans, required by the Docket 7081 MOU, describe a **process** for moving a deficiency from identification through to implementing a solution. Reliability plans describe the **substance** of the least-cost solution to solve a given reliability constraint.
- In the case of transmission deficiencies, the term “reliability plan” is synonymous with non-transmission alternatives or NTA analysis. Since there is no comparable term for distribution or sub-transmission alternatives analysis, we have adopted the generic term “reliability plan” to refer to both NTA and non-distribution alternatives analyses. It would cause confusion to use NTA and NDA, since NDA is normally associated with non-disclosure agreements. In addition, it is semantically more useful to talk in terms of what the plans *are* rather than what they are not (non-_____).
- A reliability plan is required for any transmission deficiency that “screens” in for full analysis using the Docket 7081 screening tool. This applies to bulk and predominantly bulk deficiencies that VELCO screens as a requirement of the LRTP or otherwise identifies and screens.
- A reliability plan is required for distribution constraints identified by DUs in their IRPs or that otherwise “screen in” for full analysis using the Distributed Utility Planning (DUP) screening tool from Docket 6290.
- A reliability plan is required for sub-transmission deficiencies that “screen in” for full analysis using either the Docket 7081 screening tool or the Docket 6290 screening tool. The relevant DU must justify the choice of screening tool to the VSPC when presenting its analysis.
- The right-hand side of the large rectangle describes the milestones required by the Docket 7081 MOU that follow the completion of the reliability plan. These steps move a given reliability issue from the reliability plan (NTA analysis) through to resolution, including solution selection, cost allocation, public outreach and an implementation plan.