

Regulatory Assistance Project Electric Resource Long-range Planning Survey
Transmission and Distribution Planning Version

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Name of Agency: Vermont Public Service Board (PSB)

Contact Person, title: Ann Bishop, Chief, Electric Team

Phone/email: 802-828-2358 / abishop@psb.state.vt.us

Website: <http://www.state.vt.us/psb/>

Policies

1. *Is any form of transmission and/or distribution planning required?* Yes No

2. *If yes, what planning process/es is/are required? Who requires it and who must conduct the planning?*

Two processes are required: Transmission System Planning and Distributed Utility Planning (DUP). Transmission System Planning, as described in a recently passed statute, requires utilities to submit Transmission Plans to the Board. DUP is required of utilities by the PSB. In practice, DUP analysis is done collaboratively with other stakeholders.

3. *Please describe the process.*

For Transmission Planning: New legislation enacted in 2005 requires utilities to prepare transmission system plans by July 2006, and every three years thereafter. The plan defined in the statute is not comprehensive and looks only at transmission. The Board has opened an investigation in Docket 7081 to examine a more comprehensive approach to long-range transmission planning. Currently, the Board is in the process of seeking input from intervenors to determine what issues need to be addressed.

Under the current transmission planning process, utilities must hold two public meetings to present the draft plan to the public and gather input about non-transmission alternatives. The transmission utility also has to offer to meet with the distribution utilities, the energy efficiency utility¹, and the Department of Public Service (DPS) to talk about the plan. Transmission plans are submitted to the Board, but the PSB is not required to approve plans.

¹ Efficiency Vermont acts as an “energy efficiency utility” to implement demand-side programs in Vermont.

The open docket investigating transmission will be conducted in a transparent manner, and any interested party could have applied for intervenor status (the deadline for motions to intervene is now past). The filing requirements that will result from the docket are not yet known.

For Distributed Utility Planning: DUP does not result in a plan per se, but is a process of analysis, negotiation, and discussion, and is used on an as-needed basis. DUP is designed to ensure that utilities consider all available options, including energy efficiency (EE), for areas where distribution is constrained or new distribution projects are needed. (When the energy efficiency utility, Efficiency Vermont, was created, its delivery of system-wide efficiency satisfied the electric utilities' basic requirement to deliver efficiency. However, electric utilities are still required to implement efficiency programs when it represents the least-cost solution to a wires problem governed under this process.) Docket 6290 was opened to examine this issue, and the DUP process was the result of a settlement in that docket. The agreement approved by the Board established criteria for determining when DUP is necessary (for example, when distribution is constrained, or when significant upgrades are needed). For those areas identified at the time the settlement agreement was approved, area-specific collaboratives were established. These collaboratives include the affected utility or utilities, the DPS, and other parties, usually large customers. Each collaborative's task is to look at the constraint in the area and to assess the options for addressing that constraint. The settlement agreement also develops a generic method for establishing externalities and avoided costs, which can be modified as needed to match conditions in individual areas. The parties may conduct this negotiation through a formal docket process if they wish. This is not a requirement, although it has been the typical process (see below). Negotiations could also be done informally via meetings with Board staff, or could be done with no Board involvement at all. The PSB is not directly involved, but it monitors the basic process through quarterly status reports from the collaborative.

Ten constrained areas were identified in the initial proceeding. A docket was opened to deal with each area. Of these, four of the dockets have been closed as projects were completed. Other dockets have remained open while projects are underway, or because projects were put on hold when load growth diverged from expectations. Subsequent to the initial ten dockets, one docket has been opened, dealing with underground electric lines in Burlington.

4. *Describe the analysis used by decision makers.*

For Transmission Planning: Plans must address the current need, the cost of meeting that need through traditional wires solutions, and the parameters that non-traditional alternatives would need to address. No comparison is required between wires and non-wires solutions. No specific analysis is required for Board approval (plans aren't approved by the Board), but if the required elements are missing or incomplete, the Board has the authority to request the utility to revise a plan.

For Distributed Utility Planning: The utilities are required to look at the full range of possible solutions to solve a particular constraint. These options must include EE and distributed generation as well as traditional sources. The Board is not required to review this analysis. However, when new facilities are proposed as a result of this process, the PSB will look to see that the utility has considered a variety of options and has chosen the least cost solution before approving the new facility.

5. *Please describe the relationship between this process and other decisions (e.g. construction permits, likelihood of inclusion or pre-approval of rate treatment for the anticipated resource investments, siting approval).*

For Transmission Planning: The transmission planning process will inform the review of new projects, but its focus is on providing information about alternatives in a timely fashion so that some projects may be replaced with lower-cost alternatives when appropriate. The recent statute was enacted in response to a large transmission case the Board heard in early 2005, and is designed to better inform the process. The case involved the state's largest transmission project in 25 years, and there was a high level of public interest in the proceeding. One of the issues with the case was that there was insufficient time to implement non-wires alternatives that may have been less costly, for example, a combination of generation and EE. The statute addresses this problem by requiring information about alternatives to be provided so that least-cost alternatives can be implemented before the upgrades are necessary. The statute also states that the DPS must hold public meetings and gain public input before it can take a position before the Board in transmission siting cases. It also makes explicit a requirement that distribution and transmission utilities coordinate by requiring distribution utilities to incorporate the most recently filed transmission plan in their IRP.

For Distributed Utility Planning: There is an informal relationship. Preapproval for rate treatment is not done in Vermont, and construction permits are granted in a separate proceeding. Before granting a construction permit, however, the Board must find that the need could not be satisfied more cost effectively through EE. The DUP process provides information about whether proposed transmission projects meet this least-cost criteria.

6. *Does the process investigate how the employment of one strategy vs. another may increase the consumers' exposure to risk (e.g. natural gas prices)?* Yes No

If so, how?

The transmission planning statute does not mention risk. It is unknown to what degree the docket will address risk.

In the DUP process, there is a specific risk adjustment that discounts the cost of EE by 10%, to reflect the reduced risk that EE poses to consumers because it is purchased in smaller increments and does not expose customers to long-term cost burdens.

7. *What is the scope or what are the boundaries of this planning? Is it utility-specific, statewide, or regional planning? What entities are required to participate? If applicable, what is the relationship of this process to any multi-state entity (e.g. ISO) transmission system expansion planning? How do you handle it when growth or reliability issues in one area impact distribution/transmission needs in another area?*

For Transmission Planning: The transmission planning process is designed to be utility-specific, but since there is only one transmission utility in Vermont, the process is statewide by default. The relationship between state and regional planning is unclear at this point, but will be addressed in the transmission docket.

For Distributed Utility Planning: The DUP process is utility-specific. There was one case where a constrained area occurred at the junction of two utilities' service areas. In that instance, the utilities worked together to build a joint substation. This is rare, however, because most constraints exist within one service territory.

8. *Do utilities in your state work together on this process? Do any utilities work across state lines to create regional plans? When cooperation exists, what does it look like? Do they share data and draw their own conclusions? Do they problem solve jointly for a least-cost best fit solution for all? Are demand side alternatives included in cooperative planning?*

For Transmission Planning: The new statute explicitly requires cooperation between T and D utilities by requiring distribution utilities to include the most recent transmission plan in their IRPs.

For Distributed Utility Planning: In the DUP process, utilities work together in the collaboratives when necessary, for example, as described above. EE and distributed generation must be considered in DUP planning, whether conducted by individual utilities or cooperatively.

9. *This form of planning has been required since what date?*

DUP was initiated in 1999. Since then, changes have been made, and the current process has been in place since 2003.

The transmission process has been in place since 2005.

10. *How is this process enforced, if at all? Is it routine for utilities to diverge from the Plan with an explanation? Are there any consequences for non-compliance? Do actions inconsistent with the Plan present a case for imprudence?*

For Transmission Planning: The statutory requirement is that plans should be prepared. If this requirement was not met, the Board could take action. Currently, the utilities are working to prepare the first plans under the statute, and while the process is new, enforcement isn't anticipated to be an issue. The Board has the authority to request a utility to revise its plan, but the statute does not provide for Board approval of any plan.

For Distributed Utility Planning: The process is used to inform Certificate applications, where the Board will look to see that alternatives have been considered. If this has not been done adequately, the Certificate could be denied.

Required Elements

11. *Are there any resources/strategies that must explicitly be evaluated or included?*

Yes No *Please describe.*

For Transmission Planning: Wires solutions must be evaluated. Non-wires solutions are considered by identifying the parameters by which alternative solutions could solve the problem at hand.

For Distributed Utility Planning: Distributed generation and demand management, including load control, must be explicitly evaluated. Other strategies may be considered, but they are not specified by the Order.

12. *How are investment options compared? Are wires solutions compared to supply solutions? Are they compared to demand side solutions such as energy efficiency, distributed generation or load management? Other comparisons?*

For Transmission Planning: Traditional wires solutions must be identified, and the costs of those solutions are compared. Also, the parameters by which alternative solutions could meet the need must be identified. Specific alternative solutions are not required to be identified, nor costs of these solutions compared with the costs of wires solutions.

For Distributed Utility Planning: The DUP process emerged from IRP, and requires that wires solutions, EE, distributed generation, and load management all be considered on an equal basis. As with the IRP process, both the economic and environmental costs of each solution must be considered.

13. *How, if at all, is the state regulatory agency involved?*

For Transmission Planning: Plans are filed with the Board, and the Board may request that a utility revise its plan, but there is no requirement that the Board approve the plans. The pending docket may lead to other involvement by regulators.

For Distributed Utility Planning: The Board developed the DUP process and opened the initial ten dockets (see Question 3). There are no plans that must be approved, but dockets may be opened as necessary in order to facilitate negotiation between parties, or to provide utilities with a venue in which to gain input from concerned parties. Quarterly reports are provided to the Board by the collaboratives, but these contain only general information. At the end of the process, parties may use

the DUP analysis for a Certificate application, or they may simply decide to end their negotiations.

14. *Describe the plans' objectives, from each party's perspective:*

For Transmission Planning: The Board's objectives for the plans are to identify the least-cost solution to transmission problems in a timely fashion so that the least cost solution may be implemented before upgrades are needed. (The Board has said that the current transmission planning required by statute is one component of an integrated way to think about transmission planning, but more needs to be known about how to look at non-wires solutions while they can still be implemented.)

For Distributed Utility Planning: The Board's objective is to ensure that the full range of options are considered, and the least cost option is identified and implemented.

The utility perspective on either process is unknown.

15. *Are alternative scenarios analyzed as part of the plan?* Yes No
If so, what factors are considered?

16. *Are externalities considered?* Yes No

If so, which ones and how are they considered?

The Societal Cost Test is used to evaluate demand-side resources considered in the DUP process. The DUP process also addresses environmental externalities by applying a \$7/MWH adder to non-renewable supply sources. (The DUP process also applies a 10% discount when calculating DSM costs, but this is to adjust for risk and is not intended to mitigate externalities. Both the adder and the discount are generic rates that can be adjusted to specific circumstances.)

17. *What is the planning horizon?*

For Transmission Planning: 10 years.

For Distributed Utility Planning: The planning horizon varies on a case by case basis.

Length of Energy and Demand forecasts: see above

Length of Short-term Action Plan

For Transmission Planning: There is no short-term action plan per se.

For Distributed Utility Planning: Most processes include some sort of timeline, but these can vary, depending on the situation.

18. *How often do parties have to file plans?*

Transmission plans are filed every 3 years. No plans are filed in the DUP process.

Update plans?

The Board has the authority to request transmission plan updates as needed.

What actually happens?

Transmission planning is relatively new and has no track record yet.

19. *What monitoring or other processes are used to determine consistency of investments with plans? Are there consequences for non-compliance?*

For Transmission Planning: If plans weren't done, there might be consequences in a Certificate application case.

For Distributed Utility Planning: Monitoring generally occurs in the context of Certificate applications, which could be denied if the planning process had not been done in a way that arrived at the least cost option.

20. *Are environmental issues considered in the planning process?* Yes No

If yes, please describe.

Environmental externalities are addressed in the DUP process by using a \$7/MWH adder with non-renewable supply sources.

21. *Is reduction or elimination of carbon emissions an issue or goal?* Yes No

If so, how is it dealt with?

Carbon is one of the environmental issues cited as a reason for using the \$7 adder.

Process

22. *Public hearings are held on plans* Yes No

If yes, describe the process (if it wasn't described fully in answer #3).

For Transmission Planning: Utilities are required to hold public meetings.

For Distributed Utility Planning: Public hearings are not required, but might be held. Some utilities are developing processes to increase public participation in these cases, in response to the large public outcry over the previous transmission case.

23. *Are there other ways the public participates and comments on plans?* Yes No
(E.g.: advisory groups, on-line feedback, or other pre-filing participation)

24. *What action is taken on the plan(s), and by whom?*

For Transmission Planning: Plans are filed with the Board, which may ask utilities to update their plans. There is no formal approval process.

For Distributed Utility Planning: There are no plans for the Board to take specific action on.

25. *Have resource acquisition decisions changed as a result of the planning process?*

Yes No Unsure
If "Yes", give a recent example

26. *Are competitive processes used to acquire new resources?* Yes No
Competitive bidding may be used, but this is up to the utility.
27. *If yes, do you require regulatory review and approval of the competitive solicitations used?* Yes No
28. *If the answer to 26 was yes, do you require regulatory review and approval of the contracts resulting from competitive solicitation?* Yes No
Contracts that meet the criteria for PSB review, whether from competitive or other processes, will be reviewed.
29. *Are energy efficiency or DSM plans part of the Transmission Planning process?*
Yes No

If so, please describe.

30. *Does the regulatory agency have open dockets, or is it considering opening a docket investigating any transmission or distribution investments?* Yes No
31. *Citation and description:*
Docket 7032-- investigation into Lamoille County Loop Project (proposed transmission line)
Docket 7081-- investigation into changes in the transmission planning process.
32. *Are the plans available on-line?* Yes No

If yes, list the address: Is on-line publication voluntary or mandatory? Online publication is voluntary, although information about some of the DUP projects are available online.

33. *Citation and description of State policies (legislation, rules/regs, PUC orders) governing this planning process:*
Act 61 of the 2005 session (the new Transmission statute), online at:
<http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2006/acts/ACT061.HTM>
Docket 6290 (the Order initiating DUP), online at:
<http://www.state.vt.us/psb/orders/2003/files/6290closingorder.pdf>
30 VSA 248 -- Certificate statute, online at:
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=30&Chapter=005&Section=00248>
30 VSA 218c -- IRP statute, online at:
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=30&Chapter=005&Section=00218c>
Docket 7081 (order opening investigation into transmission planning)

34. *Who has eminent domain powers related to this process? How is it obtained?*

The transmission utility has eminent domain power for transmission facilities. In order to exercise it, the utility obtains a certificate of public good from the Board for a new facility, the utility files a petition with the Board to exercise eminent domain, and then the Board reviews and approves/rejects the petition.

35. *Do you anticipate any changes to this process in the near future?* Yes No

If yes, please describe.

The rules for Transmission planning are likely to change when the Board completes its investigation in Docket 7081.

Regulatory Incentives/Mandates

36. *Does your state do performance-based regulation?* Yes No

If so, please describe briefly.

The PSB has the authority to use performance-based regulation (PBR), but to date it hasn't been proposed. Historically, PBR would have needed to be proposed by the utility in order to be used. Under a new statute passed in 2005, the utility, the PSB, or the DPS could propose PBR mechanisms.

37. *If your state uses PBR, is successful compliance with an approved resource plan one of the areas subject to incentives or penalties?* Yes No

38. *Are there any regulatory incentives specifically for energy efficiency, other DSM, or renewables?* Yes No (Examples: lost revenue recovery, shared savings, bonus rate of return) *If so, please describe briefly.*

For EE that is conducted as part of DUP, there is a lost revenue recovery mechanism called Account Correcting for Efficiency, or ACE. This mechanism removes the disincentive for the utility to pursue energy efficiency.

The PSB also has a performance-based contract with Efficiency Vermont, which can earn up to 3% of their total three-year budget in bonus payments if certain goals are met.²

Recently passed legislation has established the SPEED program, which encourages utilities to acquire renewable resources. If renewables equal to total incremental growth between 2005 and 2012 are acquired by a certain date, the state's renewable

² Goals include annual electricity savings targets, total resource benefits, and other goals.

portfolio standard (RPS) won't go into effect. This program provides both an incentive for efficiency to be procured (and thus lower incremental growth) and for renewables to be purchased. The rules for the SPEED program are still being developed.

39. *Do any tariffs include a fuel/purchased power clause?* Yes No
If so, how does it work?

40. *Does your state have any renewable mandates (e.g. from a legislated standard or goal, or a regulatory settlement or Order)?* Yes No

If so, please describe, including how the mandate relates to power vs. RECs. Vermont currently has no RPS, but if the SPEED requirements (see above) are not met, an RPS will be established (after 2012). Rules for the RPS, including the issue of power vs. RECs, have not yet been determined. The Board will begin the process of rulemaking for the RPS sometime after the rulemaking for the SPEED program is complete (the statute requires that the SPEED rulemaking be completed by September of 2006).

Can EE or DSM savings be credited toward a utility's renewable mandate?

Under the SPEED program, savings from energy efficiency are indirectly linked to the mandate. The amount of renewables required is equal to incremental load growth, so if EE reduces load growth, the renewable requirement will decrease.

State Energy Plan

41. *Is there a State Energy Plan?* Yes No
42. *Is it connected to the planning described above?* Yes No
43. *If yes, who is responsible for the Plan?*

The Department of Public Service is responsible for both and Energy Plan and an Electric Plan. The electric plan does reference IRP, but the two processes are separate.

44. *What is included in the Plan, apropos of long-range electrical planning?*

In the electric plan, load forecasts, price forecasts, current resources, emerging sustainable energy technologies, energy efficiency and other DSM activities, and wholesale power market activities are all examined. There is also a section on IRP and an action plan. In addition to being consistent with the utility's IRP, actions must be in compliance with the electric plan.

The energy plan is broader, going beyond just electric issues. It examines the ways Vermont uses energy, and what kind of energy sources could be used.

45.