STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 6860

Petitions of Vermont Electric Power Company, Inc. and Green Mountain Power Corporation for a Certificate of Public Good authorizing VELCO to construct the so-called Northwest Vermont Reliability Project, said project to include: (1) upgrades at 12 existing VELCO and GMP substations located in Charlotte, Essex, Hartford, New Haven, North Ferrisburg, Poultney, Shelburne, South Burlington, Vergennes, West Rutland, Williamstown, and Williston, Vermont; (2) the construction of a new 345 kV transmission line from West Rutland to New Haven; (3) the construction of a 115 kV transmission line to replace a 34.5 kV and 46 kV transmission line from New Haven to South Burlington; and (4) the reconductoring of a 115 kV transmission line from Williamstown, to Barre, Vermont

REPLY BRIEF OF THE VERMONT DEPARTMENT OF PUBLIC SERVICE

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I. Introduction

DPS submits this reply brief concerning VELCO's proposed NRP. Terms used in this document have the same definitions as contained in Section II of the Department's proposal for decision. DPS incorporates that proposal for decision by reference.

DPS has received initial briefs from the following parties: the Petitioners, CLF, New Haven, Charlotte, Ferrisburg, Shelburne, Vergennes, the ACRPC, VCSE, ISO-NE, Meach Cove, ANR, Mr. and Mrs. Simmons, a letter from Associated Industries of Vermont, and a joint letter from the Vermont Chamber of Commerce and other business organizations. If there are other briefs filed with the Board, they have not been served on the Department.

This document is organized as follows: After this introduction, DPS addresses issues raised by other parties concerning the burden of proof, and points out that the burden of production can shift to parties other than the Petitioners. In reply to other parties' contentions, DPS then discusses several issues under 30 V.S.A. § 248(b)(5) in which it argues that, based on fundamental facts in evidence, the burden of production should shift to other parties: education and local governmental services including alleged property tax revenue losses, tourism, and public investments and facilities. DPS next turns to other issues that relate primarily to § 248(b)(5), including historic sites and aesthetics issues in large part concerning undergrounding, EMF, the roles of DPS and ANR, and New Haven's contentions regarding a Granite-Middlesex 115 kV alternative.[1] DPS then responds to the briefs of other parties concerning the orderly development criterion. DPS follows that section with a section objecting to findings proposed by other parties based on evidence that is not in the record, and then turns to issues involving economics and planning: economic benefit to the state, compliance with the Department's 20-year plan, and various issues relating to the need criterion. This brief concludes with a section on post-certification review and a request that the Board issue a CPG for the NRP with the conditions sought by the Department, and attaches proposed conditions based on its initial proposal for

[1]DPS is authorized by David Englander, Esq., counsel for ANR, to state that ANR concurs in the Department's discussion herein of the historic sites issue and the roles of DPS and ANR in Sections VII and XI of this brief.

decision and discussion below concerning the Meach Cove airport.

DPS continues to contend that the NRP is the option that can timely meet the serious reliability issues facing Vermont and can do so cost-effectively and with certainty. With appropriate mitigation and post-certification review procedures, construction of the NRP will not have undue adverse effect under the Section 248 criteria and will promote the general good of the state.

II. **Parties who rely primarily on arguments concerning the burden of proof ignore the shifting nature of the burden of production.**

Several opposing parties make arguments based primarily on the burden of proof but fail fully to state the nature of that burden or how it and the burden of production function in the proceeding. DPS discusses these issues below.

A. The burden of proof on the Petitioners is, ultimately, the burden of persuasion.

Several other parties (e.g., Shelburne) correctly argue that the Petitioners have the burden of proof on all criteria in this proceeding. But they ignore that the fundamental nature of the burden of proof concept is, as the Vermont Supreme Court has ruled, that the party with the burden of proof "bears the risk of non-persuasion." In re Quechee Lakes Corp., 154 Vt. 543, 553 (1990).

B. The burden of proof can be satisfied by any evidence in the proceeding.

Contradicting the formalistic approach to the burden of proof apparently advocated by several parties, the Vermont Supreme Court has ruled that the burden of proof is satisfied by the actual proof of the facts which need to be proved, regardless of which party introduces the evidence. Id., citing Parish v. Maryland & Virginia Milk Producers Ass'n, 261 Md. 618, 691-92, 277 A.2d 19, 53-54, cert. denied, 404 U.S. 940, 92 S.Ct. 280, 30 L.Ed.2d 253 (1971). See also In re New England Tel. and Tel., 135 Vt. 527, 537-38 (1977) (applying same concept to PSB rate cases). Accordingly, if the evidence in this case shows that the § 248 criteria are satisfied, then they are satisfied, no matter the source.

C. While the burden of persuasion remains on the Petitioners, the burden of production can shift to other parties, and should do so where fundamental facts suggest impacts are unlikely.

Unlike the burden of persuasion, the burden of production – that is, the burden of coming forward with evidence – shifts to other parties once enough evidence is brought forward in the moving party's favor. McCormick on Evidence §§ 336, 338 (3d ed. 1984), cited with approval, Fidelity & Deposit Co. of Maryland v. Wu, 150 Vt. 225, 228-9 (1988).

The Department contends that the shifting nature of the burden of production has significant implications in this case, in which many parties have raised questions on various issues without coming forward with evidence to show significant impact. As the Department will discuss below, these issues include property tax impacts on local governments, tourism impacts, and effects on public investments. If, as the Department contends below, there is in fact enough evidence to permit an affirmative finding on these issues, then the absence of evidence from parties concerned about these issues to show significant impacts weighs heavily against their position.

III. **The Board should issue affirmative findings concerning the NRP's impacts on educational and local governmental services, 10 V.S.A. § 6086(a)(6) and (7).**

The Department contends that towns such as Shelburne and others are incorrect when they argue that the evidence is insufficient to support affirmative findings under these criteria. In fact, the evidence is sufficient, placing on the towns the burden to come forward with evidence showing that the NRP will pose an unreasonable burden, which they have not done.

Under 30 V.S.A § 248(b)(5), the Board must give "due consideration," in relevant part, to Act 250 criteria that require a finding that a proposed project will not "cause an unreasonable burden on the ability of a municipality to provide educational services" or "place an unreasonable burden on the ability of the local governments to provide municipal or governmental services." 30 V.S.A. § 248(b)(5), incorporating 10 V.S.A. § 6086(a)(6) and (7). Under these criteria, the decision-maker may consider the impacts of a project on local and regional governments' ability to provide the relevant services directly as well as indirectly due to reduction in property tax

revenue stemming from a project. In re St. Albans Group and Wal*Mart Stores, 1995 WL 404828 at 18-21, 34-36 (Vt.Env.Bd. June 27, 1995), affirmed In re Wal*Mart Stores, Inc., 167 Vt. 75, 81-2 (1997). DPS will discuss in turn the direct and indirect impacts.

A. Ryan Johnson's testimony is sufficient to demonstrate that the direct impacts of the NRP will not cause an unreasonable burden under these criteria.

Shelburne and other towns overreach when they state that Ryan Johnson's testimony is conclusory. Mr. Johnson's testimony is common sense. The NRP is not a subdivision or retail or industrial enterprise bringing in new people or employees and causing direct impacts on educational, fire, water, emergency, police, and other governmental services. It is, fundamentally, a set of poles, wires, and substations. The relevant area is replete with utility poles, wires and substations, including existing transmission corridors, and the Board reasonably may infer from these facts that the towns and regions are not experiencing significant direct burdens on service provision due to these existing facilities, and that upgrades to the facilities are therefore unlikely to pose serious direct burdens as well. Further, the NRP is unlikely to have a significant impact on emergency services since, under Board Rule 3.500, it must be built according to the NESC and therefore will not present an unreasonable safety hazard.

B. The evidence is sufficient to show the unlikelihood of an unreasonable burden on the provision of local services due to impacts on property tax revenues.

Contrary to the claims of various parties, the record does contain enough evidence for the Board to conclude that the NRP is unlikely to cause an unreasonable burden on the provision of local services because of reduced property tax revenues, and this evidence is persuasive.

To begin with, the following readily apparent facts and conclusions based on the evidence suggest small likelihood of significant impact on town revenues:

- Towns and regions *generally* have been able to provide services without undue burden on property tax revenues caused by power lines' leading to property value reductions. This is a logical conclusion from the fact that transmission and

distribution lines are ubiquitous, a matter of common knowledge that is stated in the aesthetic analysis provided by David Raphael and acknowledged by James Donovan in a prior case. Exhibit DPS-DR-1 at 3, 5; 6/17/04 tr. at 143-44 (Donovan).

- The specific towns and regions through which the NRP will pass have not experienced a significant burden in the past from power lines' causing a property value reduction. This conclusion logically flows from the existence of transmission corridors in the specific towns through which the NRP will pass. Exhibit DPS-DR-1 at 3, 5.
- In these towns and regions, the market already accounts for the existence of power lines, meaning that if there is an additional impact on property values from the NRP, the impact will be an incremental one resulting from taller poles and expanded substations. This conclusion also logically flows from the existence of transmission corridors in the specific towns through which the NRP will pass. Exhibit DPS-DR-1 at 3, 5.

The issue also appears limited to that part of the property tax that funds non-educational services. New Haven witness Deborah Brighton testified that the NRP is "essentially irrelevant" to the ability of a town to raise school taxes because of the current structure for raising and apportioning those taxes. Brighton, pf. at 3. She testified that in most communities the school tax accounts for approximately 2/3 of the property tax and that the NRP's effect, if any, would be on the remaining part of the property tax that funds town government. Id. On cross-examination, she agreed that if one wants to determine the impact of the project on a town, one would focus on that municipal tax rate. 3/3/04 tr. at 103 (Brighton) (vol. 1).

In addition, the Board should recognize that, if there is an impact on property values, in order for that impact to result in an unreasonable burden, the impact would have to survive a series of fractional reductions and an offset against property tax benefits from the project, and the result would still have to rise to the level of posing an unreasonable burden. Based on the testimony of Matthew Wilson, the following constitutes a reasonable method of approximating the property tax

revenue impact on a given town:

(1) Put a numerical value on the reduction in property value for the relevant properties in the town. This value would be a fraction of the total property value for each relevant property.

(2) Multiply that value by the most recent municipal tax rate for the town. The result will be a fraction of the total property value reduction in step (1).

(3) To obtain a sense of how significant that tax reduction is, compare the result in step (2) with the most recent year's property tax revenue.

(4) Account for any positive property tax benefits of the project on the town.

2/26/04 tr. at 10-12 (Wilson).

Thus, the calculation of an unreasonable burden resulting from any property tax reductions due to the NRP involves a fraction (the size of the property tax reduction in comparison to the annual property tax revenues) of a fraction (the municipal tax rate multiplied by the total property value reduction) of a fraction (the total property value compared to the property value reduction), offset by the tax contribution made or caused by the NRP.

To result in an unreasonable burden after application of the calculation discussed above, an aggregate property value reduction amount would have to be large indeed. Examples in the record of annual town property revenues include Shelburne $15.8 million in its FY 04, Charlotte's 10.3 million in its FY 04, Ferrisburg's $5.5 million in 2003, Middlebury's $3.5 million for the FY ending June 30, 2004, and New Haven's $2.8 million for 2003. DPS-Cross-86, 3/1/04 tr. at 32 (Bohne) (vol. 2); DPS-Cross-91, DPS-Cross-120; 3/4/04 tr. at 51 (Dunnington) (vol. 1); DPS-Cross-98 (all numbers are rounded). The evidence weighs against the NRP's creation of a property tax reduction of such magnitude that it would have a serious impact on these multi-million dollar annual tax collections.

C. <u>In the face of this evidence, the towns have not produced evidence of substantial property tax revenue losses.</u>

Because there is sufficient evidence, as illustrated above, to support an affirmative finding

that the NRP is unlikely to create an unreasonable burden on the provision of educational or governmental services, the burden of coming forward with evidence should shift toward those who claim that such a burden may occur. Yet these parties have not come forward with any analysis of the property tax reduction they contend may occur. DPS-Cross-80 and -Cross-82 (Wilson, answering for VCSE, Peyser, Vergennes and Vergennes Partnership); DPS-Cross-85 (Shelburne); DPS-Cross-90 (Charlotte); DPS-Cross-98 (New Haven); 3/4/04 tr. at 50-51 (Dunnington, answering for Middlebury) (vol. 1); and DPS-Cross-107 (Ferrisburg). In fact, these parties have been unable even to cite a single study that specifically addresses the upgrade of an existing transmission line and shows whether an upgrade has a significant effect on property values. See, e.g. DPS-Cross-77 through -79, -81, -89, and -98. Accordingly, the Board should issue affirmative findings under 10 V.S.A. § 6086(a)(6) and (7).

IV. **The NRP is unlikely to have an undue adverse impact on tourism.**

The Department addresses in turn: (a) the failure of parties who claim a tourism impact to provide supporting analysis and (b) the confirmation in the briefs of those parties of the Department's position that any tourism impacts are resolved by addressing impacts to the view.

A. Given that the area presently hosts both transmission corridors and a tourist economy, parties who claim tourism impacts bear a burden of production which they have failed to meet.

Parties concerned about the tourism issue have failed to meet their burden to come forward with evidence showing that there will be an undue adverse impact from the NRP with respect to the tourist economy. Instead, they note that a tourist economy exists in the area and state that there "could" be a negative impact on tourism. See, e.g. Shelburne's brief at 8.

Their position does not account for the fact that this tourist economy has evolved with existing transmission corridors in the area. Logical conclusions from this fact include that transmission lines do not necessarily impede tourism and that if there is any impact from the NRP's transmission line upgrades, it is likely to be incremental.

Given this fact, the burden of production should shift to parties who claim a tourism impact to back up their assertions with actual analysis showing what the impact will be and proving that the impact will be undue. They have failed, however, to provide any such analysis.

B. Briefs of parties concerned about tourism confirm the Department's position that any tourism issues relate to view impacts.

Briefs of parties who claim a tourism impact support the view taken by the Department that tourism impacts from the NRP, if any, would stem from impacts to the view. For example, Shelburne's brief, in discussing visitors to Shelburne Farms and Shelburne Museum, stresses the preservation by these facilities of their "views and viewsheds," claiming that the maintenance of their "historic context is critical to the *aesthetic* appeal of these properties" and that "their *aesthetic* appeal is critical to their attraction of visitors." Shelburne's Brief at 6 (emphasis added). All of the subsequent discussion in Shelburne's brief builds on this basic link alleged by Shelburne between aesthetics and tourism, including the following statement that: "If the 'experience' for visitors is diminished or devalued by *changes in scenic vistas*, it may decrease the attractiveness of the institutions, which could, in turn, impact the Town's tourism economy." Shelburne's Brief at 8 (emphasis added). Charlotte's brief contains a statement similar to Shelburne's claim that impacts to the view may hurt the tourist economy, and Ferrisburg's brief expresses concern about impacts to a proposed welcome center for tourists and visitors and proposes aesthetic mitigation as the solution. Charlotte's Brief at 3; Ferrisburg's Brief at 20-21.

Accordingly, once the Board resolves the alleged impacts to the view under the aesthetics and historic sites criteria, the Board will have resolved the tourism issue. The Department's position, as supported by statements of opposing parties, is correct. No "expert" is needed to figure reach this conclusion.

V. **The Board should issue an affirmative finding for the NRP under 10 V.S.A. § 6086(a)(9)(K) (public investments and facilities).**

Several parties claim that the evidence is insufficient to support an affirmative finding

under 10 V.S.A. § 6086(a)(9)(K) (public investments and facilities). DPS disagrees. 10 V.S.A. § 6086(a)(9)(K) provides:

> A permit will be granted for the development or subdivision of lands adjacent to governmental and public utility facilities, services, and lands, including, but not limited to, highways, airports, waste disposal facilities, office and maintenance buildings, fire and police stations, universities, schools, hospitals, prisons, jails, electric generating and transmission facilities, oil and gas pipe lines, parks, hiking trails and forest and game lands, when it is demonstrated that, in addition to all other applicable criteria, the development or subdivision will not unnecessarily or unreasonably endanger the public or quasi-public investment in the facility, service, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to the facility, service, or lands.

Concerning this criterion, the Environmental Board has stated that it includes essentially two separate inquiries with respect to public facilities, one being whether the public investment in such facilities will be unreasonably endangered, and the other being whether there will be material jeopardy or interference with the facilities. The Board specifically stated:

> The Board interprets Criterion 9(K) to call for two separate inquiries with respect to public facilities First, the Board examines whether a proposed project will unnecessarily or unreasonably endanger the public investment in such facilities. Second, the Board examines whether a proposed project will materially jeopardize or interfere with (a) the function, efficiency or safety of such facilities, or (b) the public's use or enjoyment of or access to such facilities.

In re Swain Development Corp., # 3W0445-2-EB, Findings of Fact, Conclusions of Law, and Order at 33 (Vt.Env.Bd. Aug. 10, 1990).

DPS will address in turn the types of facilities that are cognizable under Criterion 9(K) and then each of the two inquiries summarized above. In a separate, following section, DPS will address Meach Cove's claim concerning the airport on its land.

A. Criterion 9(K) protects governmental and public utility facilities, not private facilities in which public funds may have been invested.

Criterion 9(K) applies to *governmental* and *public utility* facilities, services, and lands. It

is not enough that public funds are invested in a particular facility for it to be cognizable under this criterion. In re Omya, Inc. and Foster Bros. Farm, 1999 WL 33227550 at 34 (Vt.Env.Bd. May 25, 1999); Wal*Mart Stores, 1995 WL 404828 at 37. In fact, the Environmental Board has rejected considering historic districts to be "public facilities" under Criterion 9(K) on the grounds that public funds may be invested in many private facilities and these districts contain privately owned structures. Id.

Based on the foregoing, broad claims such as that by Shelburne relating to "resources committed by the Town, the State, and others to conserve both land and historic resources" miss the mark. If these lands or historic resources are publically owned *and* adjacent to the proposed corridor, then they are cognizable under Criterion 9(K). Otherwise, they are not.

B. There is little risk of endangering public investments in governmental or public utility facilities through the upgrade of transmission lines that primarily will use existing corridor.

Any actual governmental and public utility facilities, service, and lands that will be adjacent to the proposed NRP must today exist typically in the vicinity of transmission corridors, since the bulk of the NRP will be built in existing corridor. Further, the evidence shows that transmission and distribution lines are ubiquitous in the landscape, meaning that public facilities, services, and lands generally must be able to coexist with such lines without significant loss of investment. Therefore, the presence of different transmission lines in the NRP corridors should pose little risk to the actual investment in public facilities, services, and lands. Further, no town or other party has come forward to meet its burden of production to identify a specific facility or land and show how the investment in that facility or land will be lost or endangered due to the NRP.

The Department incorporates by reference its discussion of the property tax revenue issue above, under 10 V.S.A. § 6086(a)(6) and (7).

C. Visibility impacts to Lake Champlain, public roads or other resources cognizable

under Criterion 9(K) will not rise to a level of "material" jeopardy or interference, particularly if the NRP is conditioned according to the Department's aesthetic recommendations.

The primary evidence adduced concerning potential governmental and public facilities has been the visibility impact of the NRP on conserved lands, historic resources, Lake Champlain, and public roads. To the extent any such lands or facilities are adjacent to the NRP and, in the case of conserved lands and historic resources, publically owned,[2] visibility impacts to them are within the scope of Criterion 9(K)'s language regarding material interference with "the public's use or enjoyment" of public lands and facilities. In re Northshore Development, Inc., Application #4C0626-EB, Findings of Fact and Conclusions of Law and Order at 13 (Vt.Env.Bd. Dec. 29, 1988).[3] The standard under this part of Criterion 9(K) – *material* interference or jeopardy – sets a higher bar than other criteria under which the standard is "unreasonable" or "undue" impact. Swain, #3W0445-2-EB at 33-4.

The Department contends that the evidence adduced concerning the NRP's impact under 10 V.S.A. § 6086(a)(8) ("Act 250's Criterion 8") is sufficient to show that the NRP will not *materially* interfere with or jeopardize, due to visibility impacts, the public's use or enjoyment of any public facilities, services and lands, and in this regard incorporates by reference its other discussion of Act 250's Criterion 8 in this brief and its proposal for decision, including the mitigation measures DPS recommends.

VI. **The Board should condition any CPG to require that VELCO comply with FAA regulations regarding the height of any poles that might interfere with safe operations at the Meach Cove airport.**

Meach Cove contends that the Board cannot make an affirmative finding under 10 V.S.A.

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[2]DPS understands Lake Champlain to be a state "land" under the public trust doctrine, and by definition public roads are publically owned.

[3]This decision also rules that Lake Champlain is a public facility or "land" under Criterion 9(K).

§§ 6086(a)(5) (traffic safety and congestion) and (9)(K) (public investments and facilities) because VELCO has not demonstrated that the height of poles will not "interfere with safe flight operations at the airstrip." Meach Cove's brief at 13. However, the Board can and should issue an affirmative finding based on a requirement that VELCO comply with FAA regulations regarding the height of any poles that might interfere with safe operations at the Meach Cove airport, and submit to the Board prior to construction a compliance filing showing that the pole heights will so comply. Given the need for the NRP and the important aesthetic benefits of the Meach Cove Reroute, the Board should issue such a condition and find affirmatively for the NRP under those criteria.

VII. **The Board should reject the argument that burial of the NRP is needed to avoid undue impact on historic sites and embrace ANR's suggestion for post-certification review of DHP's opinion on the historic sites impacts of the NRP.**

Below, the Department in turn: (a) disputes the position of VCSE that the historic sites impacts of the NRP on Shelburne Farms, Shelburne Museum and Meach Cove require burial of part of the proposed 115 kV line and (b) supports ANR's request for post-certification review of DHP's opinion on the NRP's historic sites impacts.

A. VCSE witness Pritchett presents a flawed analysis of the NRP's historic sites impact on Shelburne Farms, Shelburne Museum, and Meach Cove.

In addition to the points made by VELCO in its brief concerning the testimony of Elizabeth Pritchett, with which DPS generally concurs[4], DPS points out the following concerning Ms. Pritchett's analysis:

- *Through Ms. Pritchett, VCSE proposes a standard of zero visibility of the NRP from certain historic properties, a standard which is both unprecedented and contrary to*

[4]In its brief, VELCO improperly proposes a finding on historic sites based on evidence not in the record, namely, DHP's letter of November 15, 2004. Until such letter is admitted, it cannot be the basis of a finding.

statute. VCSE through Ms. Pritchett claims that the mere visibility of the NRP from Shelburne Farms, Shelburne Museum and Meach Cove is sufficient to cause the NRP to fail the historic sites criterion. The linchpin of Ms. Pritchett's opinion is that the power lines "will be visible" from these locations and that simple visibility is enough to "detract" from the qualities that qualify them to be historic sites. Pritchett, reb. at 22. On examination by the Board, Ms. Pritchett admitted that her "stand" is that any visibility of the NRP from these locations results in "undue" impacts. 10/20/04 tr. at 102 (Pritchett) (vol. 1).

There is no precedent for the zero visibility standard advocated by Ms. Pritchett. She is unaware of any. 10/20/04 tr. at 72, 104 (Pritchett) (vol. 1). In the Omya case on which she and VCSE claim to rely (see below), the issue was the effect of additional truck trips from a proposed project on the Town of Brandon historic district. In that case, the Environmental Board allowed truck trips from the project (fewer in number than sought by the applicant) and did not set a standard of zero truck trips. Omya, 1999 WL 33227550 at 33; 10/20/04 tr. at 75 (Pritchett) (vol. 1). In the case of Fletcher Allen's Renaissance Project and its impact on an historic district in the City of Burlington, the District #4 Environmental Commission allowed the demolition of historic structures, provided they were documented, with Ms. Pritchett's concurrence. 10/20/04 tr. at 71-2 (Pritchett) (vol. 1).

VCSE in effect not only asks the Board to establish, for the first time in Vermont, a "zero visibility standard," but also asks the Board to reach out beyond the boundaries of Shelburne Farms and Shelburne Museum and apply that standard to a project being constructed outside of those properties. The implications of such a ruling would be truly significant and ill-advised, because any development in the viewscape from anywhere on those properties potentially would be affected.

Further, and separately, a standard of "zero visibility" is contrary to § 248(b)(5) and the incorporated criterion of Act 250, 10 V.S.A. § 6068(a)(8), each of which contemplates a finding of no *undue* adverse effect on historic sites. This language inherently allows adverse effect if it is not undue, i.e., in the words of Chairman Dworkin, "some visibility" but not "too much." 10/20/04 tr. at 105 (vol. 1).

• *Ms. Pritchett failed to assess how visible the NRP will be from the properties about which she testified or how non-burial mitigation measures would specifically affect that visibility.* Ms. Pritchett has made statements that the NRP will be a "significant intrusion" and will be "jarring" from the Ticonderoga, but these statements are based on her analysis that used a zero visibility standard. She does not know herself how significant an intrusion the NRP will be, or whether in fact it will be jarring, because she has not done the work to assess how visible the NRP will be from Shelburne Farms, Shelburne Museum, or Meach Cove. In preparing her testimony, she created no line of sight sections, visual simulations, or viewshed maps. DPS-Cross-170, -171, -172. On cross-examination, she was not able to identify specific structures that would be visible, claiming it would be difficult without plans and schematics showing pole height and placement and existing vegetation. 10/20/04 tr. at 42-3 (Pritchett) (vo1. 1). Evidently Ms. Pritchett did not prepare such plans, even though she states elsewhere that she was aware of and assumed the pole locations, heights, and ROW clearing proposed by VELCO for the Meach Cove area. DPS-Cross-175, -176, -177.

Ms. Pritchett also did not consider alternate mitigation measures in any serious way and therefore could not have assessed their ability to mitigate specific line sections that might be visible from the relevant properties. She did not, for example, analyze the effects of alternate pole heights and placements. DPS-Cross-177, -178.

These omissions undermine any finding of undue adverse impact based on Ms. Pritchett's testimony, because if Ms. Pritchett does not know how visible the NRP will be from the relevant parties, then she cannot know if the effect will be undue.

• *Neither VCSE in its brief nor Ms. Pritchett in her testimony make an actual demonstration of the NRP's effect under the so-called "Omya" test.* In her testimony as originally filed, Ms. Pritchett did not mention the Omya test for historic sites impacts under Act 250, instead focusing on the Quechee test, which concerns aesthetic impacts. Pritchett, reb. at 19. VCSE later filed an "emendation" to her testimony making an oblique reference to the Omya test which was admitted as VCSE-LP-Surr-12.

But there is no specific application of the Omya test to be found either in Ms. Pritchett's

testimony or VCSE's brief. That test is recapitulated in VELCO's brief at pages 198-99. Its elements are not identical to the Quechee test, which was applied by Ms. Pritchett. In the absence of a specific application of the relevant test by VCSE and its witness, their arguments and testimony do not persuasively support their proposed burial of the transmission line.

B. The Board should grant ANR's request for post-certification review of DHP's opinion letter of November 15, 2004 because only the testimony of the Vermont Advisory Council or its delegee DHP can establish the historic significance of sites not on the national or state registers.

In this proceeding, by statutory definition there are only three ways that the Board can determine a site to be an "historic site": (a) the site is officially included on the national register, (b) the site is officially included on the state register, or (c) the testimony of the Vermont Advisory Council on Historic Preservation establishes the site as historically significant. 10 V.S.A. § 6001(9); Omya, 1999 WL 33227550 at 30. DHP is delegated to testify for the Advisory Council under 22 V.S.A. § 742(a)(8); Vt. Historic Preservation Rules § 4.1.4.

This statutory definition of "historic site" from Act 250 applies to this proceeding because § 248(b)(5) incorporates Act 250's historic sites criterion at 10 V.S.A. § 6086(a)(8). The definition of "historic sites" under the incorporated historic sites criterion is the one set out at 10 V.S.A. § 6001(9):

> "Historic site" means any site, structure, district or archeological landmark which has been officially included in the National Register of Historic Places and/or the state register of historic places or which is established by testimony of the Vermont Advisory Council on Historic Preservation as being historically significant.

The foregoing is what the General Assembly means by the term "historic site" in the incorporated criterion from Act 250 and therefore must apply to this proceeding. In this regard, statutes that are *in pari materia* must be read together as part of a unified statutory scheme. State v. Harty, 147 Vt. 400, 402 (1986).

Accordingly, as a matter of law, the testimony of Ms. Pritchett and Messrs. Henry and Boyle is insufficient to establish, as "historic sites," sites not listed on the national or state

registers of historic places, because those witnesses are not the Vermont Advisory Council on Historic Preservation or its delegee. This applies to several sites that the witnesses have determined to be eligible for the national or state registers but are not actually on those registers, including for example the Shelburne Museum, of which only the Ticonderoga is listed. See VELCO's Brief at 195 (proposed finding 681 with citations to the record).

It is thus ironic that VCSE has opposed the introduction of DHP's letter of November 15, 2004, because it is through admission of that letter, and not the testimony of its witness, that VCSE potentially can establish its claim that the Shelburne Museum is an historic site. In order to allow for appropriate consideration of historically significant properties, the Board should grant ANR's request for post-certification consideration of DHP's letter.

VIII. **The aesthetic case for transmission line burial contains serious flaws.**

With respect to undergrounding, DPS will address in turn issues related to the "community standard" and "mitigation" prongs of the Quechee test, and then a number of other issues related to the matter of undergrounding.

A. Charlotte's brief relies chiefly on a town plan statement that its own plan states is a general vision rather than a policy to guide development.

In arguing for undergrounding of the proposed 115 kV transmission line, Charlotte's brief places central emphasis on an "objective" from Chapter 4 of Charlotte's plan to place utilities underground. Charlotte's Brief at 40; Bloch, pf. at 5. Yet nowhere in Charlotte's brief is there any mention of the fact that Charlotte's own plan states that its *Chapter 5* contains "the policies and strategies which the Town hopes will accomplish the vision, goals and objectives described earlier." Charlotte Exhibit DB-2 at 77. Nor does Charlotte's brief acknowledge that the same plan states that those policies in Chapter 5 are the provisions that "are meant to be used to review and guide development proposals." Id.

In short, the chief provision relied upon by Charlotte for undergrounding in this case does not, due to Charlotte's own statement in the town plan, constitute a clear written community

standard because the statement is a vision statement not included in the plan section said to contain the policies "meant to be used to review and guide development proposals."

Thus, contrary to the implication of Charlotte's brief, the operative Charlotte plan statements on transmission line burial are not absolute. Utility Policy 1 from paragraph 5.8.12 speaks to "encouraging" utility lines to be underground and Utility Policy 2 states that Charlotte's support for locating new transmission lines in existing ROWs. The town's own planner also acknowledged on cross-examination that Charlotte's plan allows for consideration of cost and reliability issues associated with utility line burial. Exhibit DPS-Cross-93; 3/3/04 tr. at 26 (Bloch) (vol. 1).

Charlotte also incorrectly relies on its designation of Greenbush Road as scenic road and an alleged concession by Mr. Raphael that such a designation, coupled with other provisions of the Charlotte Plan, constitutes a clear written community standard. Mr. Raphael testified that the designation does not necessarily mean the transmission line should be buried under the Quechee test because there may be other ways to mitigate the impact on the scenic road. 6/17/04 tr. at 84-5 (Raphael) (vol. 2).

As stated in the Department's proposal for decision, the operative Charlotte plan provisions regarding undergrounding call for judgment by the decision-maker, including consideration of cost and reliability issues related to burial. They do not *require* transmission line burial. In exercising its judgment, the Board should use the "option of last resort" standard advocated by the Department.

B. Shelburne's plan contains no provisions requiring burial of transmission lines.

Shelburne's plan cannot be said to have a clear community standard requiring the burial of transmission lines. Indeed, of the numerous provisions of that plan cited in Shelburne's brief, not a single one addresses such burial or requires it.

Shelburne's brief also relies in significant part on generalized goal statements from Shelburne's plan (see, e.g., Shelburne's Brief at 9, proposed finding 46), without any acknowledgment that Shelburne's plan categorizes such statements as "broadly based statements"

of "general principle." Shelburne Exhibit DLP-3 at 3. As the Board is aware, such broad statements do not constitute clear written community standards under the Quechee test. In re Halnon, CPG-NM-25, Order of March 15, 2001 at 21.

The only provisions relied on by Shelburne that specifically discuss undergrounding are those of the Chittenden County Regional Plan and Shelburne's zoning ordinance. As discussed in the Department's proposal for decision, the Regional Plan's provision is not absolute and requires judgment by the decision-maker. Again, in making this judgment, the Board should apply the "last resort" standard advocated by the Department.

As for the town zoning regulations, those apply to distribution lines associated with development, not transmission lines. In any case, the General Assembly recently clarified its intent that towns may not regulate, through zoning, projects subject to § 248. 24 V.S.A. § 4413(b). Accordingly, zoning provisions now cannot be used as clear written community standards for such a project.

C. New Haven's 2000 town meeting resolution does not constitute a clear written community standard regarding aesthetics and scenic beauty.

New Haven, which seeks line burial, claims its town meeting resolution from 2000 constitutes a clear written community standard under the Quechee test. New Haven's Brief at 33. But the resolution, quoted in the Department's proposal for decision at page 32 (finding 67), provides no identification of scenic resources or guidance on project design and thus fails to constitute such a standard. Halnon, Order of March 15, 2001 at 21. Instead, the resolution simply opposes expansion of VELCO transmission facilities in the town. The resolution is a position statement, not a standard to apply to a project.

D. The direct testimony of experts for parties who seek undergrounding contains significant misstatements concerning the Quechee test, casting doubt on their application of the test.

The Department questions the mitigation approach of several of the experts relied upon in

their initial briefs by parties seeking undergrounding. In discussing the "mitigation" prong of the Quechee test, several of these experts failed to specify in their direct testimony that the prong applies to "generally available mitigating steps which a reasonable person would take to improve the harmony of the proposed project with its surroundings." In re Quechee Lakes Corp., 1986 WL 58689 at 20 (Vt. Env. Bd, Jan. 13, 1986). They specifically omitted the language about whether a reasonable person "would take" a particular mitigation step. For example, the direct testimony of Gail Henderson-King and Kate Lalley for Shelburne describes this part of the test as asking "if generally available mitigating steps have not be [sic] taken to improve the harmony of the proposed project with its surroundings." Henderson-King and Lalley, pf. at 20. James Donovan, in his direct testimony on behalf of Charlotte and Ferrisburg, describes this step as merely one of whether "the proponent failed to take reasonable steps to lessen adverse impacts." Donovan, pf. for Charlotte at 2; pf. for Ferrisburg at 3.

These witnesses' description of the mitigation prong suggests that their consideration of undergrounding is not based on evaluation of whether a reasonable person would bury a transmission line under the specific facts and circumstances (including cost and reliability), but rather on the notion that burial is simply generally available or reasonable in the abstract for a utility line. Because the direct testimony of these witnesses did not specifically cite and apply the exact language of the Quechee test, the Board cannot be fully confident of their testimony as support for burial.

The Department also contends that the Quechee test does not require "the least intrusive design" approach advocated, at least initially, by ACRPC/Middlebury/New Haven witness Jean Vissering, who is relied upon in the initial briefs of those parties. In this regard, Ms. Vissering's direct and supplemental direct testimony for the ACRPC specifically suggested and applied a "least intrusive design" or "least obtrusive design" approach that "minimizes possible impacts." Vissering, pf. for the ACRPC at 5; supp. pf. for the ACRPC at 2. She placed this approach in the context of mitigation, and used it at least initially to justify not only using a different overall project design but also reduced pole heights and undergrounding. Vissering, pf. for the ACRPC at 14-15; supp. pf. for the ACRPC at 2.

Notwithstanding these clear statements in her direct testimony, when questioned on cross-examination, Ms. Vissering denied having incorporated a "least obtrusive option" approach into her analysis. She also admitted that these words cannot be found in the Quechee test or in any Environmental Board or District Environmental Commission decisions of which she was aware. 6/18/04 tr. at 19-20, 25 (Vissering).

In rebuttal testimony, she attempted to "clarify" her statements by apparently continuing to advocate a "least aesthetically intrusive" approach (despite her prior denial that she had incorporated such an approach). She based this advocacy on a portion of the Quechee decision which cites a dictionary definition of the term "undue." Despite having previously related the "least intrusive" concept to mitigation, she claimed she was not "referring to mitigation techniques but rather the overall design concept of the project" and claimed again that the "least intrusive option" is necessary to "satisfy the Quechee analysis." Vissering, reb. for ACRPC at 4-5.

Given the discrepancies in Ms. Vissering's testimony regarding this "least intrusive design" approach concept, the Board cannot be confident that it truly understands how Ms. Vissering applied the Quechee test to the NRP. She initially cites the approach in her testimony, later denies having used it on cross-examination, and still later continues to advocate the approach. She initially places the approach in part in the context of mitigation and later states that it does not refer to mitigation techniques.

Even if the Board were confident that it understood how Ms. Vissering applied the Quechee test, the test itself does not require the "least intrusive design." The Environmental Board did not use, as a springboard for a "least intrusive design" requirement, the dictionary definition of "undue" cited by Ms. Vissering and mentioned by the Environmental Board on page 18 of that decision as its "previously described" understanding of the term. In this regard, that Board specifically stated: "While this description helps in understanding the terminology of Criterion 8, it does not identify the process which we believe appropriate in applying this terminology to specific projects." Quechee Lakes Corp., 1986 WL 58689 at 18. The Environmental Board then went on in the Quechee decision to lay out a test which does not in words or substance contemplate a "least intrusive design" approach. Instead, the term "undue" is evaluated under

three specific inquiries: (a) contravention of clear written community standard intended to preserve aesthetics or scenic beauty, (b) shocking or offensive to the average person, and (c) use of generally available mitigating steps that a reasonable person would take. Quechee Lakes Corp., 1986 WL 58689 at 19-20. Accordingly, the Environmental Board cannot reasonably be said to have understood or intended the term "undue" to encompass the approach apparently advocated by Ms. Vissering, a fact confirmed by her own admission that the Board has not subsequently applied such an approach. 6/18/04 tr. at 25 (Vissering).

The Department's point here is confined to the requirements of the Quechee test and the ability of the Board (and parties) adequately to understand the basis of Ms. Vissering's testimony. DPS does believe that the Board should consider, under § 248(b)(2), whether a project is appropriately sized or designed to meet the need.

E. The Quechee test permits consideration of the costs of mitigation.

Charlotte, Ferrisburg, Shelburne, and Vergennes argue that the Environmental Board has ruled, under the aesthetics criterion, that it will not consider "cost-benefit balancing." See, e.g., Shelburne's Brief at 72. In fact what the Environmental Board ruled is that, under the aesthetics criterion, it will not consider a project's economic benefits. It said nothing about costs. In re Mt. Mansfield, Co., Inc., 1995 WL 405099 at 3 (Vt.Env.Bd. Aug. 14, 1995).

To the extent the towns' arguments imply that, because the Environmental Board does not consider economic benefit or need under the aesthetics criterion, it also does not permit consideration of the cost of aesthetic mitigation, the Department disagrees. The issues of need and economic benefit are not identical to the question of mitigation costs. The Supreme Court has ruled in a case involving Act 250 and the Quechee test that, where mitigating steps are unaffordable, it is within the decision-maker's discretion to issue a permit. In re Stokes Communications Corp., 164 Vt. 30, 39 (1995). This ruling also indicates that the mitigation prong of the Quechee test includes consideration of whether a particular step is "reasonably feasible" and frustrates "the project's purpose or Act 250's goals." In doing so, the ruling supports the Department's contention that a reasonable person, in deciding whether to undertake transmission

line burial, would consider cost and potential reliability issues – as do the aesthetic experts who testified in this docket. Id.; DPS-Cross-41 (Henderson-King); DPS-Cross-50 (Vissering), DPS-Cross-123 (Donovan); 6/17/04 tr. at 92-3 (Raphael) (vol. 2).

DPS does agree with the towns that the Public Service Board may and should consider "cost-benefit balancing." DPS further contends that this concept supports its "option of last resort" test, in which the costs of burial are only incurred if no other aesthetic mitigation will suffice. Only then, in the Department's view, do the benefits of burial justify its substantial cost.

F. The "2 to 3 cents" per month per residential bill concept is a flawed way to assess the reasonableness of undergrounding costs.

Shelburne's brief appears to advocate the reasonableness of burial costs in part based on an estimate of "2 to 3 cents" per month per average residential bill over a 30 year period. Shelburne's Brief at 47. DPS disputes such use of this estimate for several reasons.

- A bill impact test for burial masks the true size of the project cost increase to Vermonters. As discussed in the Department's proposal for decision, the burial proposed by Charlotte and Shelburne alone appears to add approximately $22.6 million to the NRP. These proposals would result roughly in a *tripling* of the project cost to Vermont, or an increase from approximately $12 million to approximately $34.6 million. With undergrounding proposed by other towns as well, including 345 kV, the total cost increase approaches $40 million, or roughly a *quadrupling* of the cost increase to Vermonters, from approximately $12 million to approximately $52 million. The Department submits that these major project cost increases to Vermont should not be undertaken unless there is no alternative.
- The estimate is per mile and not applicable to 345 kV line burial. Shelburne's brief omits the fact that the "2 to 3 cents" estimate is per mile. 7/27/04 tr. at 56-7 (Montalvo). With Shelburne and Charlotte proposing 8.7 miles of 115 kV burial, and others proposing additional 115 kV burial, it would be reasonable to apply a figure of 10 miles to the estimate, bringing the average monthly residential bill

impact to 20 to 30 cents over 30 years. Further, the estimate was done for 115 kV only. Board Exhibit 4 (VELCO Record Request Response 1). Accordingly, it does not reflect the much higher costs, and therefore higher bill impact, of the proposed 345 kV line burial.

- The "2 to 3 cents" per bill concept ignores the need for independent justification for each rate increase. The notion inherent in the "2 to 3 cents" per bill concept is to authorize burial because it is not that big an impact on the ratepayers' monthly bills. The Department respectfully submits that each rate increase must have *independent* justification. A policy of "allow the rate increase, it's not that big a bill impact" over the long term is a policy of nibbling away at the ratepayers' pocketbooks by a series of small increases that can have a significant cumulative impact. Further, if a utility came to the Board and Department and asked for approval of a rate increase simply on the grounds that it will have small effect on the average residential bill, the Board and Department would respond by asking why the increase is needed in the first place. In the case of undergrounding, the Department's proposed "last resort" standard requires that independent justification because it includes a determination that no other mitigation will adequately protect aesthetics and scenic beauty.
- Using the estimate to determine reasonableness embodies circular logic. Use of the bill impact estimate in this case to determine reasonableness sets up a circular logic chain in which burial is required under § 248 because the cost impact is deemed reasonable under § 218, and the cost impact is deemed reasonable under § 218 because the burial is required under § 248. Specifically, under the Quechee test, a proposed mitigation step must be one that a "reasonable person would take." If one uses the bill impact estimate to justify the reasonableness of burial under Quechee, then one is inherently assuming that the impact is acceptable as a ratemaking matter. Yet under 30 V.S.A. § 218, rates must be "just and reasonable." Under usual practice, costs of aesthetic mitigation would be allowed as just and

reasonable because they are required by the terms of an environmental or land use approval.

G. The PV 20 case supports the Department's position because it involved a unique aesthetic resource with no sufficient alternative mitigation possible.

In several locations, Shelburne's brief cites the Board's approval of the burial of the PV 20 line in support of its case. See, e.g., Shelburne's Brief at 84. That case, however, supports the Department's position that burial should be the option of last resort. The case involved a unique and open line crossing over Lake Champlain with an important shoreline visual resource and because of the lake crossing, no other effective mitigation options existed. Exhibit SCV-Cross-2, Raphael Testimony in Docket No. 5778 at 16, 18-19; 6/17/04 tr. at 94 (vol. 2).

H. Burial is not required merely because VELCO has not agreed with all DPS proposed mitigation; the Board can and should require VELCO to undertake that mitigation.

Shelburne's Brief attempts to support burial by arguing that VELCO has not adopted all of the DPS mitigation recommendations. Shelburne's Brief at 78. The solution to this problem, however, is for the Board to order VELCO to comply with those recommendations.

I. The Department's consideration of undergrounding in this docket was and is appropriate.

In its brief, Shelburne proposes a number of findings that attempt to impeach the Department's consideration of undergrounding, but fails accurately to support them by reference to the evidence. For example, Shelburne's proposed findings 281 through 283 make assertions concerning the experience of DPS witnesses George Smith and Steve Litkovitz based on transcript cites that state, respectively, "Id. at 13," "Id." and "Id. at 14." The term "id" refers back to the immediately preceding transcript cite, which is found at Shelburne's proposed finding 279. That finding cites the February 18, 2004 afternoon transcript. Examination of that transcript at the

referenced pages 13 and 14 shows only testimony from VELCO witness John Plunkett, not Messrs. Smith and Litkovitz. Similarly, Shelburne's brief contains numerous references to testimony by Mr. Raphael with supporting citations to the morning transcript of February 18, 2004 (see, e.g., proposed findings 300 through 304), but Mr. Raphael did not testify on that date. 2/18/04 tr. at 3 (vols. 1 and 2).

Even if Shelburne were able to provide accurate citations to support its proposed findings, the Department's consideration of undergrounding in this docket has been entirely appropriate. When substantial comments were raised at public hearing about the issue, DPS retained outside expertise to address any knowledge gaps, put forward evidence on the issue, and even refined its opinion as it learned information about the issue of reclosure. 2/18/04 tr. at 89-92 (Mertens) (vol. 2); 6/14/04 tr. at 83-4 (Litkovitz); Smith and Litkovitz, surreb. at 9; Williams, surreb. at 7-8. As explained in the Department's proposal for decision, because of the cost and potential reliability implications of transmission line burial, the Department developed its proposed "option of last resort" standard. It submitted testimony following that standard when multiple overhead designs for a location had been proffered but none of them appeared to suffice. Raphael, design details pf. at 10. The consistent testimony is that the instructions given to DPS aesthetic consultant David Raphael were that undergrounding should be considered as an option of last resort, that he felt free to come back to the Department and recommend undergrounding where overhead mitigation options appeared insufficient, and that his professional judgment was in no way compromised. 2/19/04 tr. at 22-3 (Mertens) (vol. 2); 2/13/04 tr. at 129-30 (Raphael) (vol. 2); 6/17/04 tr. at 9-10, 15-6, 92-3 (Raphael) (vol. 2).

J. Economic status of a community should not drive a decision to bury transmission lines.

The briefs of both Charlotte and Shelburne refer to a comparison between property values in Charlotte and property values in the communities along the Northern Loop Project, ostensibly to dispute VELCO's estimate of ROW costs. Charlotte's Brief at 11-12; Shelburne's Brief at 50.

Potentially implicit in the use of this data, however, is the notion that because property

values are higher in Charlotte and Shelburne than in the towns along the Northern Loop Project, the communities with higher property values are somehow more deserving of transmission line burial. Communities with higher property values typically are wealthier. DPS disputes any implication that the economic status of a community is relevant to whether a transmission line should be buried.

K. If the Board requires burial, it should require a configuration that does not compromise reliability or make the underground section the limiting factor on the system.

In its brief, Shelburne seems to argue for a 3-cable XLPE underground installation but then later suggests a 4-cable design using a 2250 kcmil conductor. Shelburne's brief at 45, 51, 84.

All of the underground design recommendations put forward by Shelburne and Charlotte are based on the testimony of Torben Aabo. See briefs of Shelburne and Charlotte generally. Mr. Aabo is qualified to design cable systems but not to opine on whether a particular design meets the needs of a transmission system from a transmission supply planning perspective. His experience is in cable design. Mr. Aabo is not a transmission supply planner. See Attachment A to Mr. Aabo's prefiled direct testimony for Charlotte.

In contrast, DPS witness Smith is a transmission supply planner who reviewed the NRP from an overall operations perspective. Exhibit DPS-GES-1; 7/30/04 tr. at 134 (Smith) (vol. 2). The Board should heed Mr. Smith's call that any 115 kV undergrounding use a 4-cable design to minimize restoration time and a conductor size that provides the same contingency overload capacity as the conductor to be used for the proposed overhead construction. Smith and Litkovitz, supp. pf. at 8-9.[5] The underground sections should not become the limiting factor on the transmission system. 6/14/04 tr. at 73 (Smith) (vol. 1).

With respect to restoration time, Shelburne's brief at 49 appears to attempt to cast doubt on DPS witness Hans Mertens' estimate that outage repair time for a 3-cable system could be up to

[5]The Board also should ensure that any underground design complies with the mitigation recommendations of the VDH regarding EMF.

two weeks. Shelburne's brief at 49 cites David Boers' testimony that the repair time for a 3-cable system would be five or six days.

Mr. Mertens was in the past responsible for supervising underground systems in the Manhattan and Westchester, New York areas and knows the subject matter. 2/18/04 tr. at 92 (vol. 2). Moreover, several pages later, Shelburne's brief at 55 cites Mr. Aabo's testimony that "the duration of an outage for an underground cable could range from hours to *weeks* . . . ." (Emphasis added.)

In any event, whether the time period is two weeks or five or six days, it is too long for Vermont's ratepayers. If the Board requires 115 kV undergrounding, the Board should require a 4-cable system. Not only does Mr. Smith's testimony support this outcome but, contrary to an implication suggested by Shelburne, so does the testimony of Jay Williams. Specifically, with respect to a 345 kV line burial using XLPE cable, Mr. Williams recommends the installation of a spare cable to reduce restoration time. Williams, surreb. at 5-6. The logic behind this recommendation is applicable to a 115 kV XLPE installation, since minimizing restoration time is important in both cases.

Finally, nowhere in the briefs of parties who propose undergrounding is there any mention of the critical need to assure safe reclosure through installation of relay equipment. Williams, surreb. at 7-8. Any underground installation required by the Board must assure safe reclosure.

L. <u>Except for the Ferry Road crossing, the Board should determine, in its decision on issuing a CPG, whether and, if so, where transmission line undergrounding will be used.</u>

In their briefs, several parties affirmatively advocate burial of transmission lines. While the Department does not advocate transmission line burial except as an option of last resort, it does advocate that the Board state clearly in its decision whether it will require such undergrounding and if so specify the line segments it believes should be buried. VELCO will need to design any such sections and potentially return to the ISO-NE for review if undergrounding is required. Given the important reliability needs addressed by the NRP, it is important to reach

closure as early as possible on whether such a major design change is to be included.

The Department makes an exception to the foregoing for the Ferry Road crossing, which is addressed in its separate brief on that crossing.

IX. The Board should issue an affirmative finding for the NRP under § 248(b)(5) with regard to public health and safety.

The record in this case provides an ample presentation of the current state of the science with regard to EMF and demonstrates that the NRP will not have an adverse effect on public health and safety. See, DPS's proposal for decision at 173-187. The VDH conducted an extensive review of the scientific literature regarding potential health effects from EMF and also performed EMF calculations based on the existing transmission line, as well as the specific design and proposed location of the NRP segments. DPS-VDH-3; DPS-VDH-5. Based on its literature review and NRP specific calculations, VDH drew the following conclusions:

1) "the data in the current body of literature is insufficient to establish a direct cause and effect relationship between EMF exposure and adverse health effects;"
2) "the average and maximum electric and magnetic power frequency field strength for the proposed NRP does not appear to be a public health hazard;"
3) "Vermont should continue to follow the policy of prudent avoidance" in the 1994 Plan; and
4) "there are no compelling health concerns or reasons requiring modification to the NRP."

DPS-VDH-3 at 7-8. These conclusions are soundly supported by both the scientific literature on EMF and the results of the NRP specific EMF calculations and demonstrate the NRP will not have an adverse effect on public health and safety.

VCSE and Mr. and Mrs. Simmons ("Simmons") attack the VDH conclusions and recommendations by attacking the credentials of the VDH witnesses and argue that those credentials are lacking because Mr. Crist and Ms. White do not have certain degrees or research experience and in particular do not have degrees in epidemiology. Those arguments demonstrate a

narrow understanding of the relevant science and health protection policy professions and those attacks on the credentials of the VDH witnesses are completely unjustified.

Mr. Crist is the Director of the Vermont Department of Health, Division of Health Protection and has for many years served various states' agencies in the capacity of director, deputy commissioner and commissioner. In his present capacity as Director of the Division of Health Protection he is responsible for oversight of Toxicology and Risk Assessment, Medical Examiner's Office, Environmental Health, Emergency Medical Services, Radiological Health, Emergency Planning and Response, Vermont Yankee environmental surveillance and emergency response, regulatory oversight regarding lead and asbestos removal and the inspection of food and lodging establishments. VDH pf. at 3. Those responsibilities also require him to be routinely engaged in risk management decisions involving a wide range of public health issues. *Id.* Mr. Crist is therefore fully authorized and qualified to supervise, develop and implement Vermont's health protection policy. DPS-VDH-2.

Ms. White is the Vermont Department of Health Radiological Health Specialist and is involved in the development and implementation of Vermont health protection policies. DPS-VDH-1. She is a Certified Health Physicist ("CHP"), which means she is certified by the American Board of Health Physics in health physics, the science concerned with the recognition, evaluation and control of health hazards from ionizing and non-ionizing radiation, the latter of which includes EMF. *Id.* Ms. White is a member of numerous professional organizations, including the American Academy of Health Physics and the Health Physics Society. *Id.* Ms. White holds master of science degrees in Health Physics and Geology and a bachelor of arts degree in geology, with a minor in zoology. *Id.* She has written three theses involving the interpretation of both raw data and of the scientific literature. *Id.* Ms. White is not, as Simmons claims, a radiologist, which is a person who takes and interprets x-rays.

While it is true that neither Mr. Crist or Ms. White hold degrees in epidemiology, DPS notes that Dr. DelPizzo, whose testimony VCSE and Simmons rely on their briefs, also does not have a degree in epidemiology. 2/24/04 tr. at 10 (DelPizzo) (vol. 1). DPS submits that a degree in epidemiology is not only not required, it is irrelevant to the qualifications of the VDH witnesses

to develop a state policy regarding EMF from power lines. The VDH witnesses are fully qualified and authorized to develop Vermont's health protection policy regarding EMF and they have done so.

Additionally, unlike the opinions of Dr. Valberg and Dr. DelPizzo, both well-credentialed scientists who have presented testimony in this case on EMF respectively representing each end of the extreme spectrum of expert opinion in the international scientific community on the topic of potential health effects of EMF, the VDH conclusions are well-grounded, centered, balanced and consistent with the expert opinions of the vast majority of scientists who have studied this issue over the years. VDH-DPS-3.

VCSE and Simmons also question the VDH use of the ICNIRP health-based guidelines for acute exposure. As explained in the VDH report, there are no federal or state guidelines or standards for chronic low-level EMF exposure, and although the ICNIRP provides an acute standard, it was selected by VDH because it is the lowest health-based standard adopted by a recognized authority. Simmons' brief (at 6 lines 24-27) provides an excerpt from the ICNIRP (1998), relating to why it set an acute standard. That report continues to explain, that there is insufficient available data to provide a basis for setting long-term exposure restrictions. NH-28 at 496. Therefore, ICNIRP set an acute standard, and VDH chose that standard for its evaluation of the NRP, in part because there is insufficient scientific knowledge and data to provide a basis for the establishment of long-term exposure restrictions.

Contrary to the representations in Simmons' brief (at 6, lines 22-27), the ICNIRP guidelines do not indicate that exposure to the general public for 60 Hz EMF is time limited. NH-28 at 508. Rather, the ICNIRP restrictions for occupational and general public exposure are based on current density, specific energy absorption rate (SAR) and power density. *Id.*

VCSE asserts in its brief, at 13-14, that EMF of 3-4 mG are "relatively heavy exposures" and that the epidemiologic studies "strongly suggest an association" between EMF and a "*possible* public health risk." (Italics in original.) Neither of these characterizations are fair representations of the EMF from existing power lines or the current state of the science.

First, at most, the current body of scientific literature shows a *very weak* association

between EMF and possible public health effects. DPS-VDH-3 at 13. Second, average levels of EMF common in households and offices varies up to 4 mG. DPS-VDH-3 at 12. The existing transmission lines in the proposed NRP corridor result in EMF ranging in 2003 for average loading at the edge of the ROW from 1.9 mG to 45 mG and can go up to 218 mG for maximum loading directly under the power line. DPS-VDH-3 at Appendix B, Tables 2 and 3. Thus, even if the Board were to impose a 3-4 mG limit on EMF from the NRP, EMF levels in all parts of the state will exceed that level daily in homes and offices and near existing power lines. There simply is no scientific justification for imposing a limit as low, and as commonly experienced, as that proposed by VCSE. Indeed, there is no scientific justification for imposing a limit other than that recommended by VDH: the health-based ICNIRP standards. Therefore, the Board should adopt the policy recommendations of VDH.

Simmons' brief (at 6 lines 28-31) provides an incomplete reading of the ICNIRP with regard to medical devices. The quoted language provided in Simmons' brief refers to circumstances when the general public reference guidelines adopted by ICNIRP are exceeded. NH-28 at 514-515. The projected EMF for overhead construction of the NRP for the New Haven to Queen City segment, as provided in the VDH reports, will not exceed the ICNIRP guidelines, and therefore is not expected to induce adverse interference with medical devices.[6] DPS-VDH-3 Appendix B Table 4; DPS-VDH-5 Appendix D Table 4. The VDH determined that the electric fields expected from the NRP in the Simmons' neighborhood will not exceed the ICNIRP standard of 4.2 kV/m, either at the edge of the ROW (1.72 kV/m) or directly under the line (2.05 kV/m). DPS-VDH-5 Appendix D, Table. 4. Although the electric fields with the NRP will increase in the Simmons' neighborhood over those present with the existing line (.28 kV/m), the highest levels expected with the NRP (2.05 kV/m) on the New Haven to Queen City segment are already present from the existing transmission line between poles 51 and 58 (2.05 kV/m). DPS-VDH-5 Appendix

[6]As explained in DPS' proposal for decision, finding 317 at pages 180-181, the projected electric field levels along the West Rutland to New Haven route will exceed the ICNIRP guidelines directly under the power lines, but will remain below the New York state electric field guideline for highway crossings directly under power lines.

D, Table. 4. Combining this NRP specific information with the absence of scientific evidence that electric fields from power lines interferes with the functioning of medical devices, and the absence of federal or state standards restricting electric field exposure from power lines, compels the conclusion that the NRP is not expected to result in an adverse effect on medical devices.

Thus, a full and fair reading of the ICNIRP guidelines, together with the current state of the science and the absence of federal or state health based standards, demonstrates those guidelines provide a sound basis for the VDH reliance on them to assure there will not be an adverse effect on public health and safety.

Finally, Simmons argues that burial of the transmission line would protect individuals from exposure to EMF. However, there has been no demonstration that adverse health effects will result from the overhead construction of the NRP, and therefore burial is not necessary for health reasons. Nevertheless, DPS advocates continuance of the existing Vermont policy of prudent avoidance. That policy recommends taking measures to reduce EMF exposure when that can be accomplished for low cost or effort. Due to the high cost and effort involved, undergrounding of transmission lines to avoid EMF exposure simply does not meet this test. See DPS proposal for decision at 173-187.

X. **The Board should not order the conditions requested by VCSE related to EMF**.

VCSE asks the Board to impose several specific conditions that would require VELCO to underwrite the costs of a Board rulemaking, to purchase certain property where EMF levels exceed 3 mG and to purchase all property frequented by children where there is *any* EMF exposure from the NRP, and to issue and record copies of a public health advisory in the land records of certain property owners along the NRP corridor.

DPS opposes all of the conditions proposed by VCSE because VDH has determined that the NRP will not have an adverse effect on public health and safety, and therefore there is no demonstrated need for any of the requested the conditions. See DPS proposal for decision at 173-187.

A Board rulemaking is not needed because, VDH has evaluated the projected EMF

exposure levels from the NRP and determined that the appropriate guidelines to apply based on the current state of the science are the ICNIRP guidelines. VDH also recommends continuation of the Vermont policy of prudent avoidance. Therefore there is no need for the Board to establish separate EMF exposure limits from power lines through a separate rulemaking proceeding. DPS-VDH-3; DPS-VDH-5.

Additionally, as demonstrated in DPS' proposal for decision, at 173-187, there is no health-based reason to establish an EMF exposure level of 3 mG or to require the purchase of property if that level would be exceeded as a result of the NRP or if any level of EMF would result at property frequented by children. As explained in Section IX above, people are regularly exposed to EMF levels in excess of 3 mG in their homes and offices and from existing power lines.

Finally, VCSE offers no authority whatsoever for its extraordinary request that the Board require VELCO to issue and record public health advisories in the land records of property owners along the NRP corridor.

Therefore, the Board should reject the conditions requested by VCSE.

XI. **DPS and ANR have fulfilled their roles under § 248.**

New Haven's apparent claim that ANR and DPS have failed to fulfill their roles under § 248 and as a result VELCO's petition must either be dismissed or denied is erroneous and should be rejected. New Haven first incorrectly defines the roles of DPS and ANR and then alleges that DPS and ANR have not presented their respective cases within the confines of those defined roles. DPS denies that it has failed to fulfill its responsibilities under § 248 and further rejects New Haven's limited view of the DPS role in these proceedings. Specifically, New Haven argues that DPS's primary role in this proceeding is as a planner and that the statute mandates that ANR provide evidence on aesthetics, historic sites and public health and safety. Under New Haven's interpretation of the statute, that such evidence was presented by the DPS and VDH, rather than ANR, constitutes error of such gravity that the Board cannot grant VELCO's petition. New Haven concludes that the remedy should be to punish VELCO through dismissal or rejection of the

proposed project. Even if New Haven's interpretation of the statutory roles of DPS and ANR was correct, the statute does not authorize such a remedy and New Haven's requested relief should be denied.

New Haven's description of the role of DPS in § 248 proceedings as limited to a planner simply is not correct. The DPS is charged with supervising the execution of all laws relating to regulated utilities, including § 248. 30 V.S.A. § 2(a)(7). DPS is broadly charged with representing the public interests in proceedings before the Board. 30 V.S.A. § 2(b). The statute authorizes DPS to present evidence on any issue arising in a § 248 proceeding. Similarly, ANR is authorized to present evidence on any findings to be made under § 248(b)(5), and may also present evidence on other matters in the proceeding.

Contrary to the assertions of New Haven, DPS and ANR coordinated their presentations and properly fulfilled their roles in this proceeding. The Board is required in § 248 proceedings to make findings on all the criteria in § 248(b). DPS properly presented evidence and addressed the criteria, except for those that ANR addressed. ANR properly presented evidence under § 248(b)(5), except it did not duplicate the evidence presented by DPS. Indeed, the frailty of New Haven's argument is evident especially with regard to the issue of physical safety of the proposed project. The issue of safety of proposed transmission and generation facilities seeking approval under § 248 is within the expertise of DPS, not ANR. New Haven's suggestion that separate state entities must devote limited resources to make redundant presentations in a § 248 proceeding and that ANR must provide evidence on issues with which it has no particular expertise, or the petitioner risks having the case dismissed, is entirely without merit. DPS, VDH and ANR, in coordination, correctly presented evidence in this proceeding on the criteria under § 248.

Finally, New Haven argues that § 248(a)(4)(E) imposes a mandatory obligation on ANR to present evidence on each of the issues listed in § 248(b)(5) including aesthetics, historic sites and public health and safety. However, the statute provides no consequence if ANR fails to do so, and therefore, the obligation imposed on ANR in § 248(a)(4)(E) is *directory*, rather than *mandatory*. In re Mullestein, 148 VT 170, 173-174 (1987). Further, even if the obligation on ANR to present such evidence was mandatory, New Haven seeks an extreme consequence, dismissal of the

petition, which is not authorized by the statute. The remedy New Haven seeks must be specified by the legislature, and will not be implied. *Id.*; In re J.R., 153 Vt. 85, 92 (1989). The statute does not provide for the remedy New Haven seeks and therefore New Haven's requested relief should be denied.

XII. New Haven's claims concerning a potential 115 kV Granite-Middlesex Alternative are not persuasive.

In contending that the NRP does not meet 30 V.S.A. §§ 248(b)(2) and (5), New Haven makes essentially two claims concerning an alternative to the proposed 345 kV line studied by VELCO that includes a 115 kV Granite-Middlesex line: (a) that VELCO's case does not meet a "test" set out in In re Halnon, supra, and (b) that VELCO has not provided "component-specific" evidence concerning this alternative. DPS will discuss each argument in turn.

A. New Haven misconstrues the Halnon case.

New Haven overstates the reach of the Board's language concerning consideration of alternatives in the Halnon case. To the extent that New Haven implies that this case specifies the analysis necessary under 30 V.S.A. § 248(b)(2) (need), this implication is incorrect, because the decision in that case does not address that criterion. Halnon, CPG-NM-25 at 2.

Halnon also does not imply that, in order to achieve a positive finding under the aesthetics criterion, a § 248 applicant has to present an analysis under all of the § 248(b) criteria for each possible alternative. This is in effect what New Haven's interpretation would appear to require, given the level of evidence on effects on the landscape, quantification of costs and impacts, and detailed comparison of problems and costs that would be needed to satisfy the demanding standard New Haven seeks to impose. This overstated demand for evidence is illustrated by New Haven's claim that "[a]s far as the record of this case demonstrates, there are no aesthetics, wetlands, or noise concerns associated with the Granite-Middlesex/West Rutland- New Haven 115 kV line alternative." New Haven's Brief at 5. It would be just as true to say the opposite, that there is no basis in the record to say that there are no such concerns, nor should there be. A § 248 applicant

does not have to provide a full § 248 analysis for an alternative it does not propose.

In any case, VELCO's analysis presented as VELCO Exhibit Planning Panel 8 meets the language of the Halnon case because it looks at a "reasonable range" of transmission alternatives, quantifies their costs, and discusses feasibility and community impact issues. Importantly, that exhibit shows that the alternative which includes a 115 kV line from Granite to Middlesex:

- Would cost roughly $3 million more.
- Would result in voltage instability for loss of certain lines at an 1140 MW load level (whereas the 345 kV proposal would not).
- Would include an additional 115 kV line in the West Rutland to New Haven corridor. Thus, this alternative would affect all the same communities as the 345 kV line, and would require building two new 115 lines instead of one 345 kV line.
- Would affect a total of 13 communities rather than the 8 communities affected by the NRP.
- Would require widening of the ROW between Granite and Middlesex.

VELCO Planning Panel 8 at III (table comparing alternatives) and 7. This is far more information than was provided on alternatives in the Halnon case and is sufficient reason to decline to pursue the alternative further.

B. New Haven misstates prior arguments of the Department: DPS argued that "site-specific" not "component-specific" evidence is required under the environmental criteria.

New Haven claims that prior arguments of the Department which it believes have been adopted by the Board compel the production of "component-specific" evidence under the environmental criteria, and that such evidence is lacking. However, in the document cited by New Haven, DPS did not argue that component-specific evidence is required under any criteria of § 248. Rather, DPS argued that, under the economic and least-cost planning criteria, a § 248 applicant may provide evidence on the project as a whole, and on the environmental criteria, the applicant must provide "site-specific" evidence. DPS, Response to New Haven's Motion for

Partial Judgment at 11 (April 9, 2004). "Site-specific" evidence is not the same as "component-specific evidence." In order to make positive findings under the environmental criteria, the Board must have information on the impacts of a project at the affected locations, since the environmental resources and facilities to be installed at those locations may vary. But multiple components may be installed at a given site. Moreover, the provision of site-specific evidence on the impacts of a project is not the same as New Haven's suggestion that there must be an "environmental impact analysis of reasonable alternatives" for each component of a project. New Haven's Brief at 9.

XIII. **The towns are incorrect when they claim that the NRP will unduly interfere with orderly development of the region.**

DPS disputes the claims made by various towns that the Board cannot issue a positive finding for the NRP under § 248(b)(1), the orderly development criterion. DPS will address in turn issues related to the statutory language pertaining to "interference" with "orderly" development of the "region," "land conservation measures," and "recommendations" of municipal and regional bodies.

A. The briefs of Shelburne, Charlotte, Vergennes, and Ferrisburg fail to show undue "interference" with "orderly" development or even to give effect to those statutory terms.

The briefs of Shelburne, Charlotte, Vergennes and Ferrisburg spend some time discussing dictionary definitions of important terms contained in § 248(b)(1) but fail to address the key statutory terms of "interference" and "orderly." As the Board is aware, the statute requires a finding that the NRP "will not unduly *interfere* with the *orderly* development of the region . . . ." 30 V.S.A. § 248(b)(1) (emphasis added).

The term "interfere" means "[t]o come between so as to be an obstacle; impede." American Heritage Dictionary at 669 (2d. College Ed. 1982). The term "orderly" means "[h]aving a methodical and systematic arrangement; tidy" or "devoid of violence or disruption, peaceful." Id. at 875.

The towns' briefs fail to show how the NRP will impede or disrupt the systematic arrangement of development in the region or in their towns individually. They simply make the following claim: That the Board may deny a CPG "where it determines that a project's failure to comply with applicable/relevant/pertinent provisions of a local or regional plan would result [sic] undue interference with orderly development in the region in which a transmission project is located." See, e.g., Shelburne's brief at 67. This claim is insufficient because the towns do not anywhere make the link between any such noncompliance and a resulting obstacle to appropriate and systematic development in the region.[7]

The best evidence of what constitutes "orderly development" in a given region is the zoning bylaws of the towns in the region, because ensuring that development is orderly is the basic goal of zoning regulations. As the Vermont Supreme Court has stated: "The prime purpose of zoning is to bring about the orderly physical development of a community by confining particular uses to defined areas." In re Gregoire, 170 Vt. 556, 558 (1999) (mem.).

Yet there is little indication in the record or argument in the Towns' initial briefs that the NRP will somehow hinder the orderly development of the region by causing development that does not comply with zoning bylaws or preventing development in compliance with those bylaws. The primary issue under § 248(b)(1) is not whether the NRP itself constitutes disorderly development but whether it will unduly *interfere with* orderly development. This language inherently focuses on the NRP's effect on other development, not on whether the NRP will comply with zoning bylaws, from which it is exempt. 24 V.S.A. § 4413(b).

The facts suggest that the NRP will not unduly hinder appropriate development in the region. For example, if Charlotte has already implemented zoning for the Ferry Road area that allows for the existing industrial and residential uses, that zoning implicitly determines that the existing transmission and railroad lines will not interfere with those uses. Further, as argued in the Department's proposal for decision, if there is an issue with respect to discouraging development

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[7]In making this claim, they also fail to recognize that the General Assembly did not include regional plans in § 248(b)(1) or include town plans generally, instead including only the land conservation measures in a local plan. 30 V.S.A. § 248(b)(1).

in compliance with zoning bylaws, that issue is due to the incremental aesthetic impact of the NRP, which can be solved under the aesthetics criterion through appropriate mitigation.

B. The towns err in their claim that § 248(b)(1) somehow requires the Board to "aggregate" views and recommendations.

DPS disagrees with the claim of Shelburne, Charlotte, Vergennes and Ferrisburg that, because § 248(b)(1) speaks to undue interference with the orderly development of "the region," the Board somehow "must assess the aggregate views and recommendations of affected communities and regional planning commissions to arrive at its determination of the cumulative or collective 'impact" of the project on the affected region." Shelburne's Brief at 74. The towns cite no authority for this unique proposition, which does not flow directly from the statutory language.

Under § 248(b)(1), the Board has to determine whether there will be undue interference with orderly development of the region. The question is not whether, in the aggregate, the affected communities and regional planning commissions like or dislike the NRP, or of cumulating their views and recommendations. It is a substantive factual question about whether such interference will occur. The inquiries that spring logically from the statutory language are: Within the region, will the NRP cause disorderly development or hinder orderly development? If so, will it do so unduly? In answering these questions – to which the Department elsewhere contends the answer is negative – the Board gives due consideration to the recommendations of various municipal and regional bodies and the land conservation measures within the applicable local plans, but there is no suggestion in the language of § 248(b)(1) that this consideration is somehow "aggregate" rather than specific.

C. The towns fail to make any demonstration in their briefs that the plan provisions cited constitute "land conservation measures."

The briefs filed by the towns in this matter discuss provisions in their local plans but do not make a showing that each of these provisions constitutes a "land conservation measure," the key language used in § 248(b)(1) to describe the local plan provisions which the Board is required

to consider.

This important omission undermines the towns' briefs. It is not sufficient to cite, as Shelburne and some other towns do, the vagaries of a community's "passion" or "philosophy" or broad general provisions from a local or regional plan. The Vermont Supreme Court has disavowed the use of such "nonregulatory abstraction" in applying plans. In re John A. Russell Corp., __ Vt. __, 838 A.2d 906, 912 (2003). Moreover, the General Assembly used the language "land conservation measures contained in the plan of any affected municipality." 30 V.S.A. § 248(b)(1). If it meant conformance with the entirety of the local plan, or the regional plan, it could have said so, but it did not. The legislature is presumed to use its words advisedly. Trombley v. Bellows Falls Union H.S., 160 Vt. 101, 104 (1993).

It also is not sufficient to cite to recent Board decisions which make findings on a project's consistency with local and regional plans, as Shelburne and some other towns do. No party in the cases cited by Shelburne and other towns contested, and the Board did not decide, the issue of whether a broad determination of consistency with local and regional plans complies with the statute. In fact, no party in those dockets raised any concern with regard to compliance with the orderly development criterion and thus no party had any incentive to litigate the issue. In re Petition of Entergy Nuclear, Docket No. 6976, Order of 9/21/04 at 2-4, 9-11; In re Northern Loop Project, Docket No. 6792, Order of 7/17/03 at 7-11; In re Joint Petition of Swanton Electric Dept. and Citizens Energy Services, Docket No. 6603, Order of 5/8/02 at 2, 6-8. In this case, some parties controvert the compliance of the NRP with the orderly development criterion through what DPS believes is an improper application of the statute, and DPS is contesting that improper application. This dispute must be settled based on the statute itself.

In any case, as discussed above in Sections VIII.A. and B., the briefs of Charlotte and Shelburne do not acknowledge or follow specific language in their plans that states how one interprets and applies the provisions of the plans.

D. Towns are not entitled to a deferential standard regarding the interpretation of their plans.

Charlotte claims that its interpretation of its plan must be sustained absent compelling indication of error, citing In re Duncan, 155 Vt. 403, 408 (1990). DPS disagrees with the claim of entitlement to a deferential standard in interpreting a town plan. The principle cited in Duncan relates to the interpretation of a statute by the administrative body responsible for its execution. Id. A town plan is not a statute. In Duncan, the Vermont Supreme Court addressed a zoning ordinance (which is a statute), not a town plan. Id. Nor is it Charlotte which is charged in this case with the "execution" of the town plan. Instead, the Board is charged with giving due consideration to any land conservation measures in the plan. 30 V.S.A. § 248(b)(1). Moreover, in the context of Act 250, the Supreme Court has shown a marked lack of deference to the use of vague and generalized provisions from a town plan as a basis for denial, even where the town argued itself that such use was appropriate. In re Kisiel, 172 Vt. 124, 130-35 (2001).

In the alternative, DPS argues that compelling indications of error are demonstrated by: (a) Charlotte and Shelburne's failure to acknowledge or follow specific language in their plans that states how one interprets and applies the provisions of the plans, as discussed in Sections VIII.A. and B., above, (b) the towns' reliance generally on vague, broadly worded provisions, and (c) the towns' reliance on provisions that are not land conservation measures.

E. The towns fail to show the existence of any formal "recommendations" of the local and regional planning commissions within the meaning of §§ 248(b)(1) and § 248(f).

The proposed findings and conclusions filed by the towns in this matter fail to cite any documents in the record constituting formal recommendations of the planning commissions specifically pertaining to the NRP issued under § 248(f) prior to VELCO's filing of its petition with the Board. Shelburne's and Charlotte's proposed conclusions of law, for example, do not cite any specific document as constituting "recommendations" of the town or regional planning commission under the statute. Reference to town and regional planning provisions is insufficient, for reasons DPS explained in its proposal for decision and above.

New Haven does discuss its planning commission's "reaffirmance," in December 2003, of

a provision from New Haven's 2000 town plan that calls for the zoning bylaws to be updated to provide for a "system to discourage new public utility expansion. " But that reaffirmance was issued well after the application was filed and therefore was not in accordance with § 248(f). Further, the 2000 town plan provision calls for the town to put a system in place: It does not on its own terms impose any requirements on a utility applicant, nor is there any evidence the system has been put in place. See Department's Proposal for Decision at 31-2, including proposed findings and citations to the record. Moreover, were such a system in place, it would not be legal to apply it to a project subject to § 248. 24 V.S.A. § 4413(b).

New Haven also argues that VELCO failed to disclose, to the town, the existence of a possible 115 kV alternative to the 345 kV line. However, New Haven does not show how such disclosure is required by statute or how any failure to disclose prevented any town body from issuing recommendations concerning the NRP as proposed. Section 248(f) does not require that an applicant submit, to a town and regional planning commission, an analysis of alternatives to the proposed project. Instead, its requirements pertain to the plans for the "facility" itself. Nothing prevented New Haven's planning commission or other town from asking VELCO for an analysis of alternatives, if New Haven wanted to review such an analysis. Similarly, nothing prevented New Haven from issuing a formal recommendation under § 248(f) calling for an alternatives analysis (if it believed one was lacking due to its non-receipt), or from making other recommendations concerning the 345 kV proposal.

F. The towns fail to show the existence of any formal selectboard recommendations within the meaning of § 248(b)(1).

The briefs filed by the towns in this matter provide little citation and argument in their proposed conclusions of law regarding any *specific* documents in the record that they claim constitute formal "recommendations" of the relevant town selectboards within the meaning if § 248(b)(1). Charlotte's proposed conclusions of law, for example, do not cite any specific document as constituting "recommendations" of the town planning commission or selectboard under the statute. New Haven's proposed conclusions of law claim that the "Town's Selectboard,

and its public (at Town Meeting) have formally recommended" that the 345 kV line and substation not be constructed, but no specific citation to the record is provided. If New Haven is referring to a 2000 town meeting resolution discussed in its proposed findings, DPS has already discussed that resolution in its own proposal for decision at page 32.

Vergennes proposes a finding that its City Council voted to oppose the NRP as originally designed and proposed, and encouraged VELCO to seek alternate routes. Vergennes' Brief at 3. However, the record citation provided by Vergennes fails to support the finding. The citation is to Renny Perry's testimony from the June 11, 2004 transcript (a.m.) at page 37. That testimony does not state that the City Council voted to oppose the NRP as originally designed and proposed. Instead, it says that the City Council voted to endorse the Vergennes Reroute. 6/11/04 tr. at 37 (Perry) (vol. 1). Moreover, neither the brief nor the cited testimony point to where in the record one might find a document constituting the formal recommendations of the Vergennes selectboard concerning the NRP.

In support of its undergrounding proposal, Shelburne proposes a finding that is based on its Exhibit SBD-1, which is a resolution of the Shelburne selectboard dated December 9, 2003, well after the filing of the NRP. This resolution does not purport to be recommendations under § 248(b)(1). Instead, it states that the Shelburne selectboard resolves actively to participate and "address the issues identified" in the resolution and to authorize testimony "consistent with the foregoing provisions."

The "foregoing provisions" in the Shelburne resolution do not contain much in the way of substantive recommendations and lack specifics and clarity. They state that the NRP, in Shelburne's view, will have negative impacts in various areas. They state that the negative impacts "*can* be reduced substantially if the lines are installed primarily underground" (emphasis added), but *do not in fact recommend placing the proposed transmission line underground*. The closest the resolution comes actually to making a recommendation is to state that the Selectboard supports locating the expanded Shelburne substation to a site that minimizes undue adverse impact on the environment and that minimizes visual impacts. The resolution does not indicate whether the Original Proposal for the substation location is or is not acceptable. It does not provide

specific guidance on how one would determine that the broad goals enunciated for the substation are met.

In the alternative, the Department submits that due consideration is given by the Board to the substantive issues identified in the Shelburne resolution through the Board's consideration of undergrounding and the Shelburne substation under the remaining criteria of § 248(b). In this regard, the Reroute Filing contains a redesign of the Shelburne substation. See Department's Proposal for Decision at 19-20 including findings and citations to the record.

XIV. **DPS objects to party references to evidence outside of the record.**

The briefs of several parties refer to evidence that is not in the record. DPS objects to any such reference.

DPS has noted the following improper references in VELCO's brief to evidence outside of the record:

- Proposed findings 258 and 259 on pages 88-9, which are based on statements at public hearing. The public hearings are not part of the evidentiary record in this case and cannot form the basis for proposed findings.
- Proposed findings 688 and 689, on pp. 197-98, which are based on DHP's November 15, 2004 letter that has not been admitted into evidence. DPS does urge that VELCO nonetheless comply with the conditions in DHP's letter and that the Board consider that letter in post-certification review as advocated by ANR; nonetheless, until the letter is admitted, it cannot form the basis for a finding.
- That portion of proposed finding 705 on p. 204 and the proposed conclusion of law under 30 V.S.A. § 248(b)(7) on page 205 which relate to the conformance of the NRP with the draft 20-year plan released in December 2003 by DPS. The Department had prefiled testimony on this point but subsequently determined not to place such testimony into the record.

DPS has noted the following improper references in New Haven's brief to evidence outside of the record:

- On page 35, proposed finding 5, New Haven refers to a document entitled "Electricity Transmission, A Primer" which is not in evidence. Through this reference New Haven improperly attempts to supply expert testimony untested by cross-examination.
- On page 46, proposed finding 44, New Haven again refers to "Electricity Transmission, A Primer" which is not in evidence.
- On page 48, proposed findings 53-4, New Haven refers to VELCO's website and claims a "website admission" may be judicially noticed. DPS disagrees. Statements on a website are not necessarily judicially cognizable facts, nor should parties be deprived of an opportunity to provide responsive evidence concerning them. Further, the citation provided by New Haven in support of this proposition does not address the issue of whether such admissions may be judicially noticed. In re Central Vermont Medical Center, 174 Vt. 607, 614-15 ¶ 29 (2002).
- On pages 68-9, proposed findings 146 and 147 refer to an article that is not in evidence and that was submitted as an attachment to New Haven's brief. Through this action New Haven attempts improperly to supply expert testimony untested by cross-examination.
- On page 72, New Haven again refers to "Electricity Transmission, A Primer" which is not in evidence.
- On pp. 78-80, New Haven provides extensive citation and quotation from a report by the Regulatory Assistance Project which is not in evidence. Through this action New Haven attempts improperly to supply expert testimony untested by cross-examination.
- On pp. 100-01, New Haven quotes from a report by former Board Chair Richard Cowart which is not in evidence. Through this action New Haven attempts improperly to supply expert testimony untested by cross-examination.
- To its brief, New Haven attaches two articles from Public Utilities Fortnightly which are not in evidence. Through this action New Haven attempts improperly to

supply expert testimony untested by cross-examination.

DPS has noted the following improper references in CLF's brief to evidence outside of the record:

- On page 5 and 7 (proposed findings 5 and 13), and on page 15, CLF refers to the same document as New Haven, "Electricity Transmission, A Primer," which is not in evidence.
- On pages 21-23, CLF provides extensive citation and quotation from a report by the Regulatory Assistance Project which is not in evidence. Through this action CLF attempts improperly to supply expert testimony untested by cross-examination.
- On page 74, CLF quotes from a report by former Board Chair Richard Cowart which is not in evidence. Through this action CLF attempts improperly to supply expert testimony untested by cross-examination.

DPS has noted the following improper reference in the Simmons's brief to evidence outside of the record: On pages 3 through 5, Simmons provides extensive quotation of a letter from the President of the Bioelectromagnetics Society and cites to a newletter and website from that organization, none of which is in evidence.

XV. **The record evidence demonstrates that the NRP will result in an economic benefit to the state as required by § 248(b)(4).**

As demonstrated in the Department's proposal for decision, the NRP will result in an economic benefit to the state and its residents, thus satisfying the requirement of § 248(b)(4). These benefits are the obvious result of upgrading the Vermont transmission system to assure its capacity to provide a reliable source of electricity to meet demand, thereby both fostering economic growth and avoiding the economic harm that results from power outages due to an inadequate transmission system. The economic benefits flow directly from the improved stability and reliability of the Vermont transmission system the NRP is designed to provide. See Sections VI and VII of DPS' proposal for decision. The NRP also represents the least-cost alternative to timely provide the needed level of reliability, thereby conferring additional economic benefits.

See Section V of DPS' proposal for decision.

XVI. The statute requires a finding that the project will provide an economic benefit, not a "better deal" and, in any case, the NRP is the better deal for the state.

New Haven and CLF suggest that § 248(b)(4) requires that a petitioner must show that the proposed project offers a "better deal" for Vermont over the life of the project, based on specific cost and benefit analyses of the proposed project and alternatives.[8] The standard proposed by those parties conflates the economic benefit criteria under § 248(b)(4) with the least-cost criteria of § 248(b)(2) to create a new standard that does not exist in the statute and, therefore, should be rejected.

The separate criteria in the statute require the Board to make separate findings under § 248(b)(4) and § 248(b)(2), not combined findings as those parties suggest. Indeed, this argument, in conjunction with New Haven's and CLF's theories about § 248(b)(2), would render it impossible to meet the statute in any situation where no solution exists that is not both least-cost to society and the better deal for state.

While in many cases it may be that an approved project would not only meet all the requirements of § 248, but also represent the "better deal" for Vermont, the latter is not required by the statute. The plain language of § 248(b)(4) requires that the Board make a separate finding that the proposed project provide *an economic benefit*, not a combined finding with § 248(b)(2) that the proposed project offers the "best deal." If the legislature meant to conflate the least-cost and economic benefit criteria, it must be presumed that it would have done so. The legislature is presumed to use statutory language advisedly. Trombley v. Bellows Falls Union H.S., 160 Vt. 101, 104 (1993). The legislature specified two separate criteria in § 248(b)(2) and (b)(4), therefore the Board should make two separate findings, and the interpretation urged by those

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[8]Those parties reference Dr. Lesser's testimony in an attempt to find support for their proposed "better deal" standard. However, contrary to the interpretation that New Haven and CLF seek to extrapolate from that testimony, Dr. Lesser did *not* testify that § 248(b)(4) requires that the proposed project be a better economic deal over the life of the project in order to meet the requirement that the proposed project provides an economic benefit to the state and its residents.

parties should be rejected.

Alternatively, although DPS does not seek approval of the NRP based on PTF, the project's qualification for PTF would show that New Haven's and CLF's "better deal" standard is met. The significant financial support for the project through PTF is available for the NRP, but is not available for alternatives, such as DSM. See, e.g. Welch pf. at 8. New Haven and CLF argue that the Vermont contribution to PTF facilities in other states must be balanced against the PTF funds that would help fund the NRP. However, Vermont is required to contribute to other states' PTF facilities regardless of whether the NRP receives PTF. In any case, with the NRP, Vermont's contribution to region-wide PTF facilities will be a net gain to Vermont.[9]

Finally, New Haven's attempt to draw any inferences from the DPS' withdrawal of Mr. Behrns' testimony is wholly without merit and should be rejected. As the DPS explained at the time, it did not seek to admit Mr. Behrns' prefiled testimony because that testimony was not based on the final La Capra report as filed in this proceeding by VELCO. See, DPS letter dated 2/18/04 to Susan Hudson, Clerk. There are no inferences to be drawn from that testimony not being submitted for the record.

XVII. **The DPS issued a lawful determination under § 202(f) that the Board should consider.**

New Haven argues that the DPS' 202(f) determination regarding the NRP is unlawful and that the Board is unable to consider the determination as required by that statute. On those bases, New Haven asserts that this proceeding cannot go forward and should be dismissed. These arguments are without merit and should be rejected.

Section 202(f) requires a petitioner, such as VELCO in this proceeding, to request the DPS to determine whether the proposed project is consistent with the DPS' electrical energy plan. In this case, VELCO requested a § 202(f) determination, as required. The DPS issued its determination on July 2, 2004. The Department issued its 202(f) determination based on a

[9]VELCO calculated the net benefit to Vermont ratepayers of the regionalization of PTF costs in New England between 1977 and 2010 to be approximately $92.786 million. Board Exhibit 3.

reasonable analysis, which is contained in two separate memoranda explaining the bases for its determination. Therefore, the Department neither abused its discretion nor acted arbitrarily or capriciously with respect to that determination.

New Haven asserts that DPS' determination is unlawful because the document itself does not contain the reasons for its ultimate conclusion. This argument fails to acknowledge the existence of the two memoranda referred to above, which contain the supporting analysis for the 202(f) determination and explain the bases for the DPS' determination. One of those memoranda is an exhibit in the record of this proceeding[10], and both of those memoranda were provided to New Haven in discovery. In addition, as noted in DPS' proposal for decision, the record of this case in fact contains, already subject to cross-examination, the bulk of the information used by the DPS in determining consistency with the 1994 Plan.[11] Section 202(f) commits discretion to the Department for issuance of the determination. The statute does not mandate a particular practice or form for issuance of the determination. That the DPS' analyses are contained in separate documents from the 202(f) determination document does not diminish the fact that the analyses were done. Therefore, contrary to New Haven's assertions, the DPS' 202(f) determination is supported by analyses and detailed explanations for that determination and is lawful.

Section 202(f) also requires the Board in this proceeding to "consider" the DPS' 202(f) determination, "along with all other factors required by law or relevant to the board's decision on the proposed action." In its Order of October 6, 2004, the Board took administrative notice of the DPS' 202(f) determination, but specifically limited its use as evidence in this proceeding such that "it can only be used to show that the Department made the determination and cannot be used to prove truth of the matter asserted (i.e., whether the proposed NRP is in fact consistent with the 1994 Vermont Electric Plan)." Order of 10/6/04 at 5. Therefore, consistent with that Order, the

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[10]Exhibit DPS-GES&WSL-2 (containing Mr. Litkovitz's analysis and referring to testimony in this proceeding of the VDH and Mr. Raphael).

[11]See, the LaCapra analysis, Dr. Lesser's analysis, the VDH testimony, Mr. Raphael's testimony, and Mr. Litkovitz's analysis. 9/22/04 tr. at 117-18 (Litkovitz) (vol. 2); Exhibit DPS-GES&WSL-2 (containing Mr. Litkovitz's analysis and referring to testimony in this proceeding of the VDH and Mr. Raphael).

Board is able to consider the fact that the DPS issued the determination and found consistency with the 1994 Plan, but the Board will not rely on the determination for its own findings, required by § 248(b)(7), whether the NRP is consistent with the 1994 Plan. Rather, as urged by DPS in its proposal for decision, the Board should make an independent determination of consistency with the 1994 Plan in accordance with the proposed findings and the evidence in the record, which supports an affirmative finding.[12]

For the above reasons, New Haven's assertions are without merit and should be rejected.

XVIII. New Haven's assertions concerning FERC control of the proposed transmission lines are incorrectly based on applying the contract path to the actual flow of electrons.

On pages 69 and 70, New Haven suggests that the Board could approve the NRP based on the "need to serve Vermont" and that, because FERC could rule that non-Vermont users could purchase the lines' capacity, the lines "once constructed could be used to serve other purposes."

In essence, New Haven's argument is a contract path argument because, as New Haven concedes, FERC is the regulator of "wholesale power markets," that is, it has jurisdiction over the wholesale purchase and sale of power on the nation's transmission grid and resolves wholesale power contract disputes. New Haven's Brief at 46.

This argument, however, appears to ignore that: (a) the design and purpose of the NRP is to maintain transmission system integrity following contingencies; (b) power flows on Vermont's transmission lines are limited by the electrical characteristics of this system and the limitations of the ties to the outside world; (c) FERC's ability to order flows and transfers, i.e., to use the lines "to serve other purposes" is necessarily limited by these electrical characteristics; (d) VELCO analyzed the contingency performance of the NRP under a very wide range of import and export scenarios; and (e) the contingency performance of the NRP is satisfactory under this wide range of import and export scenarios (with internal Vermont loads up to a level of 1200 MW). VELCO Planning Panel, pf. at 6, 36-8; VELCO Exhibit Planning Panel-6 at 11, 27-37; VELCO Exhibit

[12]DPS' proposal for decision at 188-193.

Planning Panel 7; Smith, pf. at 12-13. In short, the satisfactory performance of the NRP is a function of the laws of physics, not the rules of FERC.

XIX. **The testimony of CLF/New Haven witness Robert Blohm is not persuasive.**

Both New Haven and CLF ask the Board to issue findings based on the testimony of Robert Blohm. There are several reasons why the testimony of Mr. Blohm should not be relied on in this docket. Below, the Department addresses in turn: (a) Mr. Blohm's limited expertise, (b) his inapplicable assertions regarding degradation of reliability by additional transmission facilities, (c) his advocacy that the Board require VELCO to use non-fact based avoided costs in comparing alternatives, and (d) his mischaracterization of the testimony of the Department's witnesses.

A. Mr. Blohm's qualifications are limited.

Mr. Blohm's expertise is seriously limited when it comes to the reliability issues in this docket or alternatives to address those issues. He is an economist rather than an electrical engineer and has no experience in the design and maintenance of a transmission system. See Blohm biography attached to his prefiled testimony; Exhibits VELCO-Cross-Blohm-Surr-4, -5, -6, -8, -10, -12, -14. He is not presented as an expert in NPCC, NEPOOL, or ISO-NE standards. 10/20/04 tr. at 30-1, 33 (Blohm) (vol. 2). He has not been a member or representative of any NEPOOL, ISO-NE, or NPCC task force. VELCO-Cross-Blohm-Surr-15. He is not testifying on behalf of NERC. VELCO-Cross-Blohm-Surr-16. He has no experience, education or training in the siting of emergency or permanent generation or the siting, construction, and operation of distributed generation. VELCO-Cross-Blohm-Surr-22, -23. He has no experience, education or training in the design and implementation of demand response programs. VELCO-Cross-Blohm-Surr-13, -25. He says he has not submitted testimony "as an expert specializing in least-cost planning . . . ." VELCO-Cross-Blohm-Surr-26. He nonetheless claims some expertise on DSM, based on the somewhat dubious assertion that he spent "hundreds of hours" talking about the subject on the telephone. 10/20/04 tr. at 13, 15, 23 (Blohm) (vol. 2). He admits that he has not participated in a study of DSM potential in a given area or in the design or implementation of a

DSM program. 10/20/04 tr. at 21-2 (Blohm) (vol. 2).

B. Mr. Blohm's opinion that new transmission lines will degrade reliability is flawed.

Mr. Blohm's opinion that new transmission lines in Vermont might degrade reliability is not supported by his qualifications, since as shown above he has no experience or training in the relevant fields. The opinion also is not specific to the NRP, since Mr. Blohm has failed to present any specific analysis of how the NRP will affect reliability. Moreover, the applicability of Mr. Blohm's opinion to Vermont is undermined by an article he cites in support of the opinion. The article, entitled "It's Time to Challenge Conventional Wisdom," raises concerns about adding more transmission-oriented solutions where the grid "mesh" has moved "from quite sparse to relatively dense." New Haven Blohm Surrebuttal-10. Vermont does not have a densely meshed transmission grid. VELCO Exhibit TD-2.

C. The Board should reject Mr. Blohm's proposed use of non-fact based avoided costs in screening alternatives.

Mr. Blohm's criticisms of ISO-NE's use of a single zonal price for Vermont are seriously flawed in terms of their applicability to this proceeding, since he effectively recommends that the Board require VELCO to use, in screening alternatives, avoided costs that have no basis in fact. Whatever the merits of his criticism, the fact is that today Vermont is single zone. Mr. Blohm's answer to that fact for this case is to advocate assuming, for the purpose of analyzing alternatives, that Vermont is two zones, with a higher price for northwest Vermont. He does not advocate that the Board somehow actually implement this dual zone scheme (assuming *arguendo* that the Board has jurisdiction to do so); instead, he recommends simply using it as an assumption for least-cost analysis. 10/20/04 tr. at 53-6 (Blohm) (vol. 2). The result of his recommendation, therefore, would be to use costs which do not actually exist, meaning that the analysis would assume avoided costs that would not in fact be avoided.[13] The Department disputes Mr. Blohm's recommendation

[13]This is different from externalities, which are included based on a theory that the costs do
(continued...)

because, if implemented, the analysis would not result in identifying the actual least-cost alternative. The Department also notes that CLF and New Haven's sponsorship of such testimony is inconsistent with their advocacy of a level playing field in the analysis of options.

D. Mr. Blohm's characterization of the Department's witnesses contains serious errors.

The Department disputes Mr. Blohm's characterizations of DPS witness testimony, and contends that the flaws in those characterizations undermine Mr. Blohm's testimony.

For example, Mr. Blohm incorrectly states that DPS witness Hans Mertens believes that weak "transmission links were a cause of the August 14, 2003 blackout, apparently referring to the size of transmission links." Blohm, surreb. at 20. Mr. Mertens did not cite weak *transmission* links as a cause of the blackout, but rather was using the term "weak link" in a broad fashion to refer to any component of the transmission system. 8/5/04 tr. at 15 (Mertens) (vol. 2). With respect to the August 2003 blackout, Mr. Mertens referred to the following causes: "[L]ack of tree trimming, lack of operator qualification, lack of relays, that function as designed. Lack of operator attentiveness." Id. The blackout report confirms the correctness of Mr. Mertens' statements on causes of the August 2004 blackout. See Exhibit DPS-Cross-196 at 18 (failure to adequately manage tree growth, "inadequate situational awareness" at First Energy), 19 (inadequate training of First Energy personnel to maintain reliable operation under emergency conditions), 51 (for over an hour, control room operators did not grasp that computer systems were not working properly), 58-9 (overgrown trees; need for trimming shown by prior fly-overs), 73 (relay protection settings were not coordinated to reduce likelihood and consequences of a cascade and were not intended to do so).

Mr. Blohm is similarly inaccurate when he asserts that Mr. Mertens claims that one should "increase tenfold the capacity of the entire North American grid and never use it" in order to create "transmission security." Blohm, surreb. at 21. The transcript portion cited by Mr. Blohm in

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[13](...continued)
exist but are not priced.

support of his claim does not contain any such statement. Instead, Mr. Mertens was answering questions posed by Mr. Dumont concerning the causes of the August 14, 2003 blackout. 8/5/04 tr. at 16-7 (Mertens) (vol. 2). As noted above, Mr. Mertens did not suggest that the size of transmission links was a cause of the blackout.

Mr. Blohm is again incorrect when he claims that Mr. Mertens states a belief that "the NRP is needed to meet Vermont load under the resource-adequacy criterion." Blohm, surreb. at 21. The transcript portion cited by Mr. Blohm in support of his claim does not contain any such statement. Instead, the referenced testimony pertains to concerns that Mr. Mertens has previously enunciated regarding a supply shortfall that may exist if the NRP is constructed according to the schedule proposed by VELCO. 10/20/04 tr. at 34 (Mertens) (vol. 2); Mertens, pf. at 9-11.[14]

Mr. Blohm's discussion of NEPOOL's resource adequacy criterion on page 21 (and elsewhere) also is not supported by his qualifications, since Mr. Blohm is not an expert on NEPOOL, NPCC, or ISO-NE reliability requirements.

Mr. Blohm continues his inaccuracies when he asserts that Mr. Mertens' "view of Vermont's reliability needs" rests on assumptions related to zonal pricing, continued use of distant generation sources, and treatment of "economic reliability" as equivalent to "emergency reliability." Blohm, surreb. at 21-22. Mr. Blohm provides no citations in support of this assertion. In his direct testimony, in discussing the reliability needs of Vermont, Mr. Mertens emphasizes Mr. Smith's determination that "under a set of reasonable generation assumptions and summer load levels, a trip of any of several key circuits connected to NW Vermont will cause either severe voltage problems in the area or overloads of remaining circuits supplying the area resulting in severe and widespread problems through Vermont." Mertens, pf. at 6-7.

Mr. Blohm is not credible when he suggests, on page 27 of his testimony, that DPS witnesses Smith and Litkovitz appear "confused about what a contingency is" because Mr. Smith cited an outage lasting for a summer peak period as a possible contingency. Since Mr. Blohm is

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[14]On cross-examination, Mr. Blohm could not recall if he had read Mr. Mertens' direct testimony and was not able to state clearly whether he had read the direct testimony of any DPS witnesses. 10/20/04 tr. at 23-4 (Blohm) (vol. 2).

not an expert on NEPOOL, NPCC, or ISO-NE reliability requirements, Mr. Blohm does not have sufficient expertise to criticize these witnesses. As Mr. Smith makes clear in his direct testimony, he is using NPCC and NEPOOL design criteria, which he states include "the occurrence of any first contingency given an extended outage of any critical transmission element or resource. " Smith, pf. at 11-12.

Mr. Blohm is wrong when he claims that Mr. Smith describes the McNeil generation station as a peaking unit. Blohm, surreb. at 27. In the transcript section cited by Mr. Blohm, Mr. Smith states that he does not think of a peaking unit "as a normal element in a system," and that McNeil is part of "the basic system that you are dealing with." 7/30/04 tr. at 128 (Smith) (vol. 2). A witness who thinks of McNeil as part of the basic system is not thinking of McNeil as a peaking unit. Mr. Blohm also is incorrect in his suggestion that a McNeil outage cannot possibly be considered a contingency, since NEPOOL Planning Procedure No. 3 and NPCC Document A-2 both include the loss of "any critical generator" as part of the transmission system design criteria. VELCO Planning Panel, pf. at 12.

Mr. Blohm is again inaccurate in asserting that Mr. Smith "assumes that it is the function of responsive reserve" to run around the clock. Blohm, surreb. at 28. In the transcript portion that Mr. Blohm cites in support of his assertion, Mr. Smith states no assumptions about the *function* of responsive reserve. He simply agrees with an assumption made by VELCO's planners that local generators are not likely to be available around the clock because their track record and design suggest otherwise. 7/30/04 tr. at 137 (Smith) (vol. 2). If Mr. Blohm is correct that such availability is not their function, then he is confirming, not rebutting, Mr. Smith's testimony.

XX. **The Board should not order DPS to undertake the actions sought by various parties, such as seeking cost recovery from NEPOOL for distributed resources.**

Parties such as New Haven and CLF urge the Board to order the DPS to undertake actions such as soliciting proposals for distributed resources and pursuing cost recover for those resources at NEPOOL and local tariffs. These parties do not demonstrate that the Board has

authority to issue such orders, and DPS respectfully submits that such authority does not exist.

With respect specifically to the issue of seeking cost recovery for distributed resources at NEPOOL, the Department's position is that DPS, the Board, VELCO, and the Vermont distribution facilities have previously sought such recovery and were not successful at achieving it. Expending further resources on a second attempt would be unlikely to bear fruit.

XXI. **The 2003 load figures in VELCO's brief are in fact 2002 summer peak figures.**

In several locations, VELCO's brief incorrectly refers to 2002 summer peak load figures as if they were 2003 figures. For example, in footnote 8 on page 15, VELCO states that "[d]uring the summer 2003 peak hour, the load would have "registered" closer to 1035 MW, but for OMYA's voluntary curtailment of approximately 10 MW. VELCO Technical Panel Reb. pf. at 10." However the referenced testimony concerns the summer peak load for 2002. VELCO Technical Panel, reb. at 10. Similarly, on page 52, VELCO proposes the following finding:

> However, with the system as it exists today (i.e. without any of the aforementioned preceding upgrades), the 345kV line is needed at a 955 MW peak load level, which is nearly 70 MW below the summer peak load level Vermont experienced during the summer of *2003*. VELCO Technical Panel Reb. pf. at 3.

(Emphasis added.) Here, the referenced testimony refers to "being nearly 70 MW below summer peak load levels Vermont has already experienced." VELCO Technical Panel, reb. at 3. It does not specifically refer to 2003. The VELCO Technical Panel's testimony rebuttal elsewhere refers to a 2002 summer peak load level of 1023 MW (which is roughly 70 MW higher than the 955 MW discussed in VELCO's proposed finding). VELCO Technical Panel, reb. at 10.

DPS believes that the only summer 2003 peak load figure in the record is that supplied by witness Robert McIntyre, which is a figure of 1002 MW. 6/15/04 tr. at 53 (McIntyre) (vol. 2). Based on his deposition (which is in evidence), DPS believes that, when Mr. McIntyre states a peak load figure, he does not include VELCO's Conn Valley load, in contrast to VELCO, which does include that load. CLF-RM-5 at 30-33; VELCO Technical Panel, reb. at 6.

To make Mr. McIntyre's figure comparable to the other figures supplied by VELCO, DPS suggested in its initial brief that the figure should be adjusted upward by 30 MW to account for

Conn Valley, and continues to maintain that suggestion. DPS notes that this figure is the only load figure discussed in its initial brief that it has adjusted to account for Conn Valley load.

XXII. **DSM alone or in combination with generation (ARC 5) is not the likely or appropriate choice to meet the need.**

In its proposal for decision, DPS addressed in detail the issue of whether alternative resources can timely and cost-effectively meet the need. DPS here addresses contentions related to CLF and New Haven's proposal for a $569 million DSM-only option and contentions they make concerning the differences between the NRP and ARC 5.

A. Vermont should not risk reliability or $569 million on a DSM-only option.

CLF and New Haven argue that a solution to Vermont's reliability problems is to implement an intensive DSM program at a cost of $569 million for a ten-year campaign, all based on one panel's statement that there is a "90 percent" probability that the savings can be obtained over the next decade. CLF's Brief at 33-4; New Haven's Brief at 55-6; VELCO Exhibit OEI-1 at 7; Plunkett, et al., pf. at 6.

There are several reasons why this solution is not the appropriate choice. First, as discussed in the Department's proposal for decision, Vermont does not have a decade with which to experiment in whether DSM can address its pressing reliability problems.

Second, a $569 million cost to Vermont is exceptionally large in comparison to the approximately $12 million cost to Vermont of the NRP. Dunn, pf. at 16. CLF and New Haven are, essentially, asking for implementation of a set of programs that would have roughly 47 times the cost to Vermont than the NRP, based on theoretical societal costs and benefits. This request is an overly dogmatic application of the societal test.

Third, the "90 percent" probability is based on one panel's professional judgment. There is a lack of consensus in this judgment: Other witnesses in this docket do not have the same confidence level in the ability of DSM reliably to achieve savings of such magnitude fast enough to defer NRP elements. Montalvo, pf. at 11; Mertens, pf. at 5, 8; Welch, pf. at 5. It is notable also that CLF and New Haven criticize Mr. Montalvo's concerns with the feasibility of ARC 5 on grounds that they are simply "professional judgment," yet rely on a witness's professional

judgment when it suits their objectives.

Fourth, the "90 percent probability" is itself a qualified statement. The panel making the statement acknowledges the unprecedented nature of the campaign that they modeled, stating:

> [N]o utility has ever sustained such large efficiency investment commitments for so long in so many markets simultaneously and actually achieved the relative magnitudes of peak demand savings projected over the next decade in this report. In this sense, we are forecasting well beyond the pooled, time-series sample data we are estimating from.

Plunkett, et al., pf. at 7. This is a slim reed on which to risk Vermont's reliability and $569 million.

B. CLF and New Haven overstate the difference between the NRP and ARC 5 in the LaCapra base case.

Both CLF and New Haven claim that the "total societal cost" difference between the NRP and ARC 5, as stated in the LaCapra base case, is 9.5 percent. CLF's Brief at 30; New Haven's Brief at 52, 93.

In the La Capra base case, the total societal costs of ARC 5 and the NRP are, respectively, $1.206 billion and $1.272 billion. VELCO Exhibit MDM-2 at 4. Simple division of $1.206 billion by $1.272 billion yields a figure of 94.8, meaning that, on a total societal cost basis, ARC 5 is 5.2 percent less than the NRP.

In any case, these figures are by nature "soft" or theoretical because they are subject to load growth and fuel price uncertainty and embody a host of assumptions. Lesser, pf. at 13; 7/27/04 tr. at 46-7 (Montalvo) (vol. 1); VELCO Exhibit MDM-2 at 70; Montalvo, reb. at 18. When dealing with figures of this magnitude that are subject to significant uncertainty, a difference of 5.2 percent or 9.5 percent is not a difference on which one can put a high level of confidence. 7/27/04 tr. at 46-48 (Montalvo) (vol. 1). In short, ARC 5 may or may not turn out to be $66 million cheaper on a societal basis: The figure is not a hard enough one on which to risk Vermont's reliability.

XXIII. **The Board should apply the N-2 standard at this time to ensure adequate reliability.**

The Department disagrees with those parties who suggest that the Board should not apply the N-2 standard used by the NPCC and NEPOOL. The N-2 standard is the right standard to use at this time. It is the applicable standard in the region. New England is at the end of the line with few interconnections to the rest of the North American transmission grid. Tr. 9/21/04 at 60-1 (Whitley) (vol. 2). Vermont has a sparse and aging transmission infrastructure that has already suffered loss of system components and has vulnerable connections to the rest of the grid. Planning Panel, pf. at 4; Parker, pf. at 4-5; VELCO Exhibit Planning Panel-6 at 3, 7, 8; VELCO Exhibit TD-2.

Reliable service to Vermont's ratepayers should not be risked on a departure from the standard applicable to the region based on an argument that the benefits of the standards have not been quantified. The safety and economic benefits of keeping the lights on are clear and supported by evidence supplied by VELCO. Moreover, the Board is not being asked to apply a standard from "out of the blue" but rather a standard endorsed by the NPCC, ISO-NE, and NEPOOL. Insistence on a theoretical quantification of the benefits of applying an N-2 standard would place Vermont customers at risk while litigants argue over the methodology and results of such an analysis.

Arguments contesting the probability of the contingencies modeled by VELCO in applying the N-2 standard ignore that Vermont has been close to the occurrence of a second continence several times over the past decade and assume, contrary to the evidence of recent events on the transmission system, that the contingencies necessarily occur independently. See VELCO's proposed findings 17-19 and citations to the record.

Further, arguments in support of probabilistic analysis to determine the appropriate level of reliability[15] do not provide a persuasive basis to depart from the N-2 standard. At this time probabilistic analysis is a useful adjunct to deterministic analysis for transmission systems

[15]DPS is not here addressing the use of probabilistic analysis in the selection of the appropriate alternative to meet a need (such as that used by DPS witness Jonathan Lesser, which in any event the Department's proposal for decision suggests be used in this docket as a sensitivity check to the more deterministic analysis by LaCapra Associates). Rather, DPS is addressing the use of probabilistic analysis to determine whether a given level of reliability is needed.

planning, but it is not appropriate as a basic standard. Generation planning lends itself to probabilistic analyses because there are many units in existence and data is available on the forced outage rates of all the units. Although probabilistic analysis can and does shine light on a transmission problem, its usefulness is limited because different transmission elements will have different impacts. Transmission elements are more unique than generation elements and it is difficult to draw generalized numeric conclusions concerning them. 3/5/04 tr. at 129-30 (Smith).

XXIV. **Post Certification Review**

In their initial proposed findings and briefs, VELCO and ACRPC each propose specific post-certification procedures. VELCO's proposal includes a very speedy process, allowing just seven days for parties to file comments on its post-certification filings and requiring a hearing within fourteen days of the comments, but only after good cause for such hearing has been demonstrated. VELCO Proposed Findings and Brief, Appendix B, paragraph 3. ACRPC focuses its proposal on participation of towns in a post-certification process. ACRPC seeks at least three weeks for town representatives to review VELCO's post-certification filings, VELCO funding of experts for the town to assist in reviewing those filings,[16] a meeting and negotiation and Board hearing where necessary to resolve the dispute. ACRPC Brief at 18-19. As set forth in DPS' proposed findings, at 198-201, the post-certification process should be designed to strike a reasonable balance between the many purposes of that process, including the need to assure timely construction of the project and the need to provide a fair opportunity for the affected towns, regions and property owners to participate in the process.

DPS is concerned that neither the VELCO or the ACRPC proposal provides an adequate

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[16]ACRPC cites to 24 V.S.A. § 4440(d) as authority for the town to require VELCO to pay for independent experts to review its post-certification filings. That section applies to zoning and other development applications filed with a municipal body for its approval. That statute provides that "[t]he legislative body may establish procedures and standards for requiring an applicant to pay for reasonable costs of an independent technical review of the application" which has been submitted to the municipal body for approval. That statute does not have any application to § 248 petitions filed with the Board. Therefore, that statute provides no authority to impose such an obligation in this proceeding. See also, 24 V.S.A. § 4413(b).

balance of the time necessary for all parties to review VELCO's filings and the need to assure timely construction of the project. VELCO's proposal lacks elements that DPS believes are essential to the post-certification process, including a specific schedule for VELCO to submit its filings and sufficient time for parties to review and comment on those filings, including sufficient time to permit field inspections for substations, road crossings and designated sensitive areas.[17] On the other hand, ACRPC's proposal does not include any provision for assuring participation by all parties or for a timely resolution of the design issues so that construction of the project may begin. Due to the size and scope of the NRP, no one time-frame may be appropriate for post-certification review of all segments and components of the project and therefore a more flexible process may be required.

DPS reiterates its suggestion that VELCO submit its filings for each segment and component of the NRP on a series of dates keyed to its construction schedule. After a schedule for VELCO's filings is established, then the schedule for review, comment and even a date for hearing,[18] in the event that is necessary, can be set for each segment and component of the project. Parties affected by each segment, including town representatives, can anticipate when the filings will be received and plan accordingly to be prepared to efficiently review and comment on those filings by the established date. Thus, such a schedule may permit a more timely process, although it is likely to be unrealistic to expect any party to review and comment on VELCO's detailed final designs within seven days. How much time should be allowed for review and comment should

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[17]Sensitive areas in this context refer to those areas the Board is convinced merit this designation based on the evidence submitted in the recently concluded evidentiary proceedings. Such designation would require additional effort by VELCO in preparation of its post-certification designs prior to submitting its filings, including staking in the field its final design and proposed mitigation and digital representations. DPS does not intend to suggest that parties, during post-certification proceedings, could seek to have additional areas designated as sensitive.

[18]While it is certainly not anticipated that a hearing will be necessary for each segment of the project, the date for hearing, if that becomes necessary, and final decision also should be a part of the schedule developed for each segment of the project to assure that the time is available, all parties are prepared to go forward in a timely manner and VELCO can anticipate a final decision for its construction planning purposes.

reflect the relative size and complexity of the segment. For example, if VELCO were to file final designs for the entire 345 kV segment from West Rutland to New Haven, more time for review and comment should be provided than if the segment comprises a single road crossing. DPS suggests that a single time-frame will not fit every segment and component of the NRP and that its proposal allows sufficient flexibility to establish the appropriate post-certification review process specific to each.

DPS supports the emphasis ACRPC places on negotiation to resolve disputes and the post-certification process should allow time for affected parties to pursue a mutually agreeable resolution. The Board should emphasize the expectation that all affected parties will negotiate in good faith and attempt to resolve issues whenever possible. The DPS proposal anticipates that the review and comment period established for each segment and component would be sufficient to accommodate negotiations as well.

In instances where negotiations are not successful, a reasonable opportunity should be afforded to affected parties to file comments. It should be expected that disputes will be resolved on written comments or through informal hearing processes in most instances. Where the comments raise substantial issues, affected parties could be required to participate in either facilitated or mediated dispute resolution, or a hearing could be held before a hearing officer designated by the Board, with timely resolution of the dispute an essential goal of the proceeding, as described in DPS' proposal for decision.

In order to prevent post-certification proceedings from becoming either unnecessarily time consuming or overly burdensome for affected parties, formal hearing processes should be limited to those instances where an affected party requests a formal hearing and raises a substantial issue. DPS agrees with VELCO's premise that post-certification hearings should not become a forum for re-litigating issues that have already been addressed in the evidentiary proceedings.

VELCO's proposal suggests that a hearing would be held only where a party demonstrates good cause, and it offers a standard for determining good cause, but it does not offer a separate standard for the actual post-certification review. The good cause standard proposed by VELCO appears to require parties to first prove their case to demonstrate good cause for a hearing and then

prove their case again in the hearing. Rather than pursue the extra hurdle of good cause, DPS believes that the Board hearing officer assigned to the post-certification review process will be sufficiently discriminating to move the matter forward on the written comments when appropriate and to hold a formal hearing only on request and when substantial issues are raised.

The standard to be applied in the post-certification review proceedings should be whether VELCO's final design plans for the segment are consistent with the Board's approval and whether the proposed plans and mitigation function as anticipated.

XXV. **Conclusion**

Based on the foregoing, its proposal for decision, and the evidence in the record, DPS asks that the Board issue a CPG for the NRP with the conditions, and subject to the post-certification review procedures, advocated by the Department. For ease of reference, DPS includes those conditions in an attachment to this reply brief. The conditions are those sought in the Department's proposal for decision along with the condition regarding the Meach Cove airport recommended above.

Dated at Montpelier, Vermont this 17th day of December, 2004.

Respectfully submitted,

VERMONT DEPARTMENT OF PUBLIC SERVICE

By:_____
Aaron Adler, Special Counsel
Dixie Henry, Special Counsel

enc.

cc: service list