

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 7102

Petition of Central Vermont Public Service )  
Corporation ("CVPS") and Vermont electric )  
Power Company, Inc. ("VELCO"), pursuant to )  
30 V.S.A. § 248(j), for a certificate of public )  
good authorizing: (1) VELCO to replace an )  
existing 20 MVA transformer with a new 70 )  
MVA transformer at VELCO's Bennington )  
substation located in the Town of Bennington, )  
Vermont; and (2) CVPS to reconductor )  
approximately 10.1 miles of existing 69 kV line )  
in the Towns of Bennington, Woodford, and )  
Searsburg, Vermont )

Order entered: 1/27/2006

**I. INTRODUCTION**

This case involves a petition filed by Central Vermont Public Service Corporation ("CVPS") and Vermont Electric Power Company, Inc. ("VELCO"), on July 28, 2005, requesting a certificate of public good under 30 V.S.A. § 248(j) to replace an existing 20 MVA transformer with a new 70 MVA transformer at VELCO's Bennington Substation in Bennington Vermont, and to reconductor approximately 10.1 miles of existing 69 kV line in the Towns of Bennington, Woodford, and Searsburg, Vermont. Petitioners submitted prefiled testimony, proposed findings, and a proposed order pursuant to the requirements of 30 V.S.A. § 248(j).

Notice of the filing in this Docket was sent on September 30, 2005, to all entities specified in 30 V.S.A. § 248(a)(4)(c) and all other interested parties. The notice stated that any party wishing to submit comments as to whether the petition raises a significant issue with respect to the substantive criteria of 30 V.S.A. § 248 needed to file comments with the Board on or before November 1, 2005. A similar notice was published in the *Bennington Banner* on October 4 and October 11, 2005.

On October 11, 2005, Mr. Victor Rolando filed comments with the Board concerning possible impacts of archeological resources at the Woodford substation site. In response to these comments, CVPS conducted a site visit with representatives of the Vermont Department of Historic preservation ("DHP"). On October 31, 2005, DHP filed a letter with the Board stating that this project will have no affect on any historic sites that are eligible for the State Register of Historic Places. The only other comment received was from the Vermont Department of Public Service, which stated that "the Department does not believe that this matter raises any significant issues with respect to the criteria of 30 V.S.A. § 248(j) and the Department has no objection to the issuance of the CPG."

The Board has determined that the proposed construction will be of limited size and scope and that the petition has effectively addressed the issues raised with respect to the substantive criteria of 30 V.S.A. § 248. Consequently, we find that the procedures authorized by Section 248(j) are sufficient to satisfy the public interest and no hearings are required.

## **II. FINDINGS**

1. CVPS and VELCO are companies, as defined in 30 V.S.A. § 201 with their principle places of business at 77 Grove Street, Rutland, Vermont, and 366 Pinnacle Ridge Rd., Rutland Vermont, respectively. Petition at 1.

2. The proposed project includes the replacement of an existing 20 MVA transformer with a new 70 MVA transformer at VELCO's Bennington substation in Bennington, Vermont. The proposed project also includes the reconductoring of approximately 10.1 miles of CVPS's Bennington to Searsburg 69 kV transmission line. Exh TOU-1; exh. DGW-2.

3. The work will take place entirely within an existing substation yard and an existing transmission line corridor. Upton pf. at 2; exh. CHR-7.

4. The proposed project is designed to maintain system stability and reliability by increasing capacity. No system configuration changes would occur with the proposed project, so stability would be unaffected, and reliability enhanced as a result of the upgrade. Richards pf. at 3-6.

**Orderly Development of the Region**

[30 V.S.A. § 248(b)(1)]

5. The proposed project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of the affected municipality. This finding is supported by findings 6 through 10, below.

6. The proposed project involves minor improvements to existing facilities within the limits of the existing substation lot and within an existing transmission corridor. Due to the limited nature of these improvements, land uses in the region will be unchanged. Upton pf. at 1-2.

7. The Bennington Town Plan states that avoiding contamination of public community water systems is "essential." The project is located within a Source Protection Area; as part of the proposed project the oil containment system under the transformer will be replaced, which will reduce the potential for contamination in the area. The Bennington Substation is located within a Source Protection Area, and replacement of the oil containment system under the transformer will reduce the potential for contamination in the area. The Woodford Comprehensive Plan emphasizes the protection of wildlife habitat and other natural resources, as well as recreational opportunities, in the Green Mountain National Forest, which comprises most of the town and includes nearly the entire length of the transmission line. Because all work would take place within an existing transmission corridor, there would be no new land use impacts from the proposed project. CVPS would coordinate access to the corridor with the U.S. Forest Service, and any access improvements would comply with Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont. Searsburg does not have a municipal plan. Upton pf. at 2-3.

8. The Bennington Regional Plan includes the following language under the heading of Electric Transmission:

A 115 kV line enters the region in Pownal and runs through the valley north to Manchester. A smaller transmission line enters the region from the east in Woodford. Electrical substations and local transmission lines distribute this

energy throughout communities in the region. Although these transmission facilities appear adequate at the present time, electrical demand, both within the region and in areas outside the region that are served by the same facilities, must be monitored so that future growth can be accommodated in a well-planned manner.

The proposed project involves a coordinated and planned upgrade of regional facilities in conjunction with surrounding utilities. Upton pf. at 2-3.

9. The portion of the proposed project within the jurisdiction of the Windham Regional Commission would be located entirely within areas identified as Resource Lands in the Windham Regional Plan. The Windham Regional Plan states:

Construct corridors for new energy transmission facilities only when needed, and then adjacent to and parallel to existing operation energy transmission facility corridors. Minimize their visual impact on ridgelines, slopes and open areas, and avoid important natural and historic resources.

The proposed project would be located entirely within an existing transmission corridor. Upton pf. at 2-3.

10. The Bennington, Woodford, and Searsburg Selectboards, the Bennington and Woodford Planning Commission, the Bennington County Regional Commission, and the Windham Regional Commission were provided with a description of the proposed project's purpose, nature, and extent, along with location maps. Searsburg does not have a municipal planning commission. None of the local and regional entities recommended changes to the proposed design. The Bennington Selectboard and Planning Commission expressed their support for the proposed project. Upton pf. at 2-4; exh. TOU-2.

**Need for Present and Future Demand for Service**

[30 V.S.A. § 248(b)(2)]

11. The proposed project is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy efficiency and load management measures. The Bennington/Searsburg/Harriman area is a looped network 69 kV system. The existing Bennington Y-25 line and the Y-25 115/69 kV transformer need to be replaced to prevent

overloading. The existing transformer can be exposed to overloading caused by throughflow, which becomes a greater problem as local load decreases. Richards pf. at 3-4.

12. The existing conductor on the Bennington to Searsburg 69 kV line was installed in 1938. Reconductoring the Bennington to Searsburg line will increase the rating of the line from 37 and 45 MVA during the summer and winter, respectively, to 76 and 102 MVA during the summer and winter, respectively. Watts pf. at 1-3.

### **System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

13. The proposed project will not adversely affect system stability, and reliability would be enhanced as a result of the upgrade of presently undersized facilities. Richards pf. at 6; exhs. CHR-3 and CHR-4.

### **Economic Benefit to the State**

[30 V.S.A. § 248(b)(4)]

14. The total estimated cost of the proposed project, not including contingency, is \$2,163,000 in 2005 dollars. Actual cost will not be known until contracts have been signed and, if there are any non-fixed cost elements, until the proposed project is completed. Richards pf. at 9.

15. As a result of the project, Vermont residents in Dover and Wilmington will receive more reliable service, because they will continue to have service from Bennington and Harriman substations. With the upgrade of the new transformer, the existing transformer will serve as a back up, further increasing reliability. Bennington residents will have more reliable service as a result of the line and transformer upgrades; the Y-25N line provides a very useful source of power for Bennington, and will only become more useful over time if generation continues to be added in the Searsburg and Harriman areas. Richards pf. at 9.

**Aesthetics, Historic Sites, Air and Water Purity,  
the Natural Environment and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

16. The modifications as proposed will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and public health and safety. This finding is supported by findings 16 through 37, below, which are the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

**Outstanding Resource Waters**

[10 V.S.A. § 1424(a)(d)]

17. The proposed project is not located on or near any Outstanding Resource Waters. Upton pf. at 10.

**Water and Air Pollution**

[10 V.S.A. § 6086(a)(1)]

18. The proposed project will not result in unreasonable air pollution. The proposed project does not involve excessive dust during construction, or odors. Construction will take place only during daylight hours, which will minimize the effects of noise at neighboring properties. Brush cleared from the site will be chipped on site and hauled away for reuse. No burning will take place. Upton pf. at 4.

**Headwaters**

[10 V.S.A. § 6086(a)(1)(A)]

19. The proposed project is located partially in headwaters areas. However, the work will take place entirely within an existing cleared right-of-way on existing poles. Any necessary work for access within the right-of-way will be in conformance with Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont. Upton pf. at 4-5; Watts pf. at 2.

**Waste Disposal**

[10 V.S.A. § 6086(a)(1)(B)]

20. The proposed project as designed will meet any applicable health and environmental conservation regulations regarding the disposal of wastes. This finding is supported by findings 20 and 21, below.

21. The proposed project does not involve disposal of wastes or injection of any material into surface or ground water. Retired substation materials, conductor wire, and hardware will be removed from the site for salvage, or for disposal by a licensed waste hauler. Upton pf. at 5.

22. A new foundation and oil contaminant system will be installed at the Bennington substation under the new transformer. Upton pf. at 5; exh. CHR-9.

**Water Conservation**

[10 V.S.A. § 6086(a)(1)(C)]

23. The proposed project will not require the use of water. Upton pf. at 5

**Floodways, Streams, and Shorelines**

[10 V.S.A. §§ 6086(a)(1)(D)(E) &(F)]

24. There will be no new construction within a floodway. Upton pf. at 5.

25. The transmission line crosses several streams and the Roaring Branch of the Waloomsac River. The proposed project involves the replacement of conductor wire on existing poles within an existing cleared right-of-way. Any necessary work for access within the right-of-way will conform with Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont. Upton pf. at 6; exh. TOU-1; Watts pf. at 2.

**Wetlands**

[10 V.S.A. § 6086(a)(1)(G)]

26. Exhibit TOU-1, submitted with the initial filing, shows the location of all wetlands in the Vermont Significant Wetlands Inventory ("VSWI") relative to the transmission line. Maintenance of existing transmission lines in accordance with a vegetation management plan approved by the Agency of Natural Resources ("ANR") is an Allowed Use under the Vermont Wetlands Rules. The Agency of Natural Resources has determined that the replacement of existing transmission lines in an already existing right-of-way on existing components is an allowed use under the Vermont Wetlands Rule. Upton sup. pf. at 1; TOU-1. Therefore, the replacement of existing transmission lines in an already existing right of way on existing components is an allowed use under §§ 6.2(h) and 6.2(1). Upton sup. pf. at 1; exh. TOU-1; exh. TOU-3.

**Sufficiency of Water and Burden on Existing Water Supply**

[10 V.S.A. §§ 6086(a)(2)&(3)]

27. The proposed project will not require the use of water. Upton pf. at 6.

28. The substation and a part of the transmission line are located within the Wellhead Protection Area ("WHPA") for the Bennington Water Department. A substation and line already exist on the site, and the proposed project involves replacement of existing components, including the replacement of the transformer foundation and associated oil containment system. Therefore, changes to the WHPA's source protection plan should not be necessary. Upton pf. at 6-7.

**Soil Erosion**

[10 V.S.A. § 6086(a)(4)]

29. All work will take place within the existing substation fence and the existing cleared transmission line right-of-way. Any necessary work for access within the transmission line right-of-way will conform with the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont. Upton pf. at 7; Watts pf. at 2.

**Transportation Systems**

[10 V.S.A. § 6086(a)(5)]

30. There will no change to the existing road crossings. Existing roads will be used to access the right-of-way. Any necessary traffic control will be done with the authorization of the Vermont Agency of Transportation. Upton pf. at 7.

**Educational and Municipal Services**

[10 V.S.A. § 6086(a)(6)(7)]

31. The proposed project will not cause an unreasonable burden on the ability of the affected municipalities to provide education or municipal services. Upton pf. at 7-8.

**Aesthetics, Historic Sites  
and Rare and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

32. The proposed project will not have an undue adverse effect on the scenic or natural beauty, aesthetics, historic sites or rare and irreplaceable natural areas. This finding is supported by findings 30 through 34, below.

33. The proposed project involves the replacement of component parts within an existing substation and on existing pole structures. Cross-braces will be added to some poles to support the heavier wire. Upton pf. at 9; Watts pf. at 1; exh. DGW-1

34. The proposed project will take place entirely on an existing substation lot and within an existing cleared transmission right of way. Upton pf. at 2; exhs. CHR-7 and CHR-8.

35. The height of the proposed transformer will be significantly below the height of the tallest structures at the Bennington substation. Exh. VELCO-CHR-8.

36. The existing conductor size is 0.447 inches in diameter and the proposed conductor would be 0.85 inches in diameter. Watts pf. at 1.

37. The proposed project would not have any affect on historic sites that are eligible for the State Register of Historic Places. Letter of October 31, 2005, from the Department of Historic Preservation, to Susan M. Hudson, Clerk of the Board.

38. The proposed project will involve only maintenance cutting for equipment access and pole climbing. No new clearing will be necessary outside the existing right of way. Upton pf. at 9; Watts pf. at 2.

39. There are no known rare or irreplaceable natural areas in the proposed project area. Upton pf. at 8.

### **Discussion**

Based on the above findings, the Board finds that the proposed project will not have an undue adverse effect on the aesthetics or scenic and natural beauty of the area. In reaching this conclusion, the Board has relied on the Environmental Board's methodology for determination of "undue" adverse effects on aesthetics and scenic and natural beauty as outlined in the so-called Quechee Lakes decision. Quechee Lakes Corporation, #3W0411-EB and 3W0439-EB, dated January 13, 1986.

As required by Quechee Lakes, it is first appropriate to determine if the impact of the proposed project would be adverse. The proposed project would have an adverse impact on the aesthetics of the area if its design is out of context or not in harmony with the area in which it would be located. If it is found that the impact would be adverse, it is then necessary to determine that such an adverse impact would be "undue." Such a finding would be required if the proposed project violates a clear written community standard intended to preserve the aesthetics or scenic beauty of the area, if it would offend the sensibilities of the average person, or if generally available mitigating steps would not be taken to improve the harmony of the proposed project with its surroundings. The Board's assessment of whether a particular proposed project will have an "undue" adverse effect based on these standards should be significantly informed by the overall societal benefits of the project.<sup>1</sup>

The proposed project will not have an adverse effect on the aesthetics of the area because all work will take place within an existing substation yard and an existing cleared transmission right of way, neither of which will be expanded.

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1. Docket 6884, Order of 4/21/04 at 20-21.

The proposed project will have only a minimal impact, if any, on aesthetics, because a substation and transmission line already exist at the site and the replacement lines and substation will not expand in size or scope from the existing substation and transmission lines. Because the transmission line and substation already exist at the site the proposed project will not be shocking or offensive. Furthermore, because the existing structures will accommodate the proposed project, mitigation measures are not needed.

The proposed construction takes place within the existing right-of-way of the transmission line and within the existing fenceline of the Bennington substation. The proposed changes are relatively minor in scope. However, we are concerned with the aesthetic impact of the reconductored wire. Although evidence was not presented in this Docket concerning the aesthetic impact of the wire itself, the Board is aware that new conductor can often be brighter than older conductor and thus shine when the sun strikes the new conductor. CVPS and/or VELCO should file a letter with the Board explaining whether non-specular conductor will be used for the line, and if not, why not. If petitioners use non-specular wire, the proposed project will not have an adverse aesthetic impact, as the visual impact of the project will be minor.<sup>2</sup> However, if the traditional conductor is used, the aesthetic impact of the proposed project is unclear and, consequently, the Board could not make a determination as to whether the proposed project creates an adverse impact. If petitioners determine that traditional conductor will be used, it must file additional information regarding the aesthetic impact of the reconductoring.

### **Necessary Wildlife Habitat and Endangered Species**

[10 V.S.A. § 6086(a)(8)(A)]

40. The work will take place entirely within an existing substation lot and an existing cleared transmission corridor. There are no known endangered species sites in the proposed project area. Upton pf. at 9; exh. TOU-1.

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2. The use of non-specular wire could raise other issues, such as the economic benefit of the proposed project. The Board's understanding from other projects is that non-specular wire raises the cost of the conductor by 10-15%. However, we do not have any information specific to the particular conductor size being proposed in this Docket. We recommend that petitioners discuss this issue with the Department of Public Service.

**Development Affecting Public Investments**

[10 V.S.A. § 6086(a)(9)(K)]

41. The proposed project will not unnecessarily or unreasonably endanger the public or quasi-public investments in any governmental public facilities, services, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of the public's use or enjoyment of or access to such facilities, services, or lands. This finding is supported by findings 38 and 39, below.

42. The transmission line crosses several public roads and the Green Mountain National Forest. CVPS' easements for the line predate forest service ownership of the National Forest land. Because the line work would involve the placement of conductor on existing poles, none of the adjacent public investments will be impacted. Upton pf. at 10.

43. As with previous construction on the line, access to the right-of-way would be coordinated with the U.S. Forest Service where appropriate. Existing roads would be used to access the right-of-way, and any access work within the right-of-way would conform with Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont. Upton pf. at 10; Watts pf. at 2.

**Least-Cost Integrated Resource Plan**

[30 V.S.A. § 248(b)(6)]

44. The proposed project is consistent with the principles for resource selection in accordance with CVPS' approved least-cost integrated plan. The reconductoring will reduce line losses and is required to provide reliable service to other Vermont utilities and customers. Watts pf. at 3.

**Compliance with Electric Energy Plan**

[30 V.S.A. § 248(b)(7)]

45. The proposed project will increase the reliability of existing facilities which provide economical and efficient service to existing Vermont customers, and is therefore consistent with the 2005 Vermont Electric Plan. Watts pf. at 3; Richards pf. at 6-7.

46. On November 4, 2005, the Department filed a letter stating that the proposed project is consistent with the Vermont Twenty-Year Electric Plan, pursuant to 30 V.S.A. § 202(f).

**Outstanding Resource Waters**

[30 V.S.A. § 248(b)(8)]

47. The proposed project is not located on or near any Outstanding Resource Waters. Upton pf. at 10.

**Waste to Energy Facilities**

[30 V.S.A. § 248(b)(9)]

48. The proposed project is not a municipal solid-waste-to-energy facility, and, therefore, this criterion is inapplicable.

**Existing or Planned Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

49. The proposed project can be served economically by existing transmission facilities without undue adverse effect on Vermont utilities or customers. Watts pf. at 2-3; Richards pf. at 9.

**III. CONCLUSION**

Based upon the above evidence, we find that the proposed construction will be of limited size and scope; the petition has effectively addressed the issues raised with respect to the substantive criteria of 30 V.S.A. § 248<sup>3</sup>; the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

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3. We conclude that the issue raised regarding the potential of adverse impact on nearby archeological sites has been adequately addressed.

**IV. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the proposed project, in accordance with the evidence and plans presented in this proceeding, and the condition included below, will promote the general good of the State of Vermont in accordance with 30 V.S.A. Section 248, and a certificate of public good shall be issued in the matter.

Petitioners shall file a letter stating whether they intend to use non-specular conductor for the Bennington to Searsburg transmission line. If non-specular conductor will not be used, petitioners shall file additional information regarding the aesthetic impacts of the reconducted line.

Dated at Montpelier, Vermont, this 27<sup>th</sup> day of January, 2006.

<u>s/James Volz</u>	)	
	)	PUBLIC SERVICE
	)	
<u>s/David C. Coen</u>	)	BOARD
	)	
	)	of Vermont
<u>s/John D. Burke</u>	)	

OFFICE OF THE CLERK

FILED: January 27, 2006

ATTEST: s/John P. Bentley  
Acting Clerk of the Board

*Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*