

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 6816

Petition of Vermont Electric Power Company,)
Inc. for a certificate of public good, pursuant to)
30 V.S.A. § 248(j), authorizing the replacement)
of two 115 kV circuit switchers at VELCO's)
Cold River Substation located in the Town of)
Clarendon, Vermont, with two 115 kV circuit)
breakers, and the related expansion of the)
existing control building, to accommodate the)
upgrade)

Order entered: 5/20/2003

I. INTRODUCTION

This case involves a petition filed on March 5, 2003, by Vermont Electric Power Company, Inc. ("VELCO") requesting a certificate of public good ("CPG") under 30 V.S.A. § 248(j). VELCO seeks to replace two existing 115 kV circuit switchers with two 115 kV circuit breakers and expand an existing control building, all within the existing Cold River Substation, located in the Town of Clarendon, Vermont.

VELCO has served the petition, prefiled testimony, proposed findings, and a proposed order (along with a prospective CPG) on the Vermont Public Service Board ("Board"), the Vermont Department of Public Service ("DPS") and the Vermont Agency of Natural Resources ("ANR"), as specified in 30 V.S.A. § 248(a)(4)(C), pursuant to the requirements of 30 V.S.A. § 248(j)(2).

Notice of the filing in this docket was sent on March 20, 2003, to all parties specified in 30 V.S.A. § 248(a)(4)(C) and all other interested persons. 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 must file the comments with the Board on or before

April 21, 2003. Notice of the filing, with a request for comments on or before April 21, 2003, was also published in *The Rutland Herald* on March 24 and 31, 2003.

The ANR filed comments with the Board on April 18, 2003. The ANR does not oppose the filing and does not request a hearing. In its filing, the ANR requests that Stone Check Dams be used for erosion control inside the existing drainage ditch, as opposed to the silt fencing and hay bale method proposed by VELCO.

The DPS filed comments with the Board on April 21, 2003. In its comments, the DPS requested the addition of specific statements to the proposed findings submitted by VELCO related to the proposed project's need and reliability criteria. Consistent with its comments and requested additions, the DPS recommends that the Board issue the requested CPG without further notice and hearings.

In a letter to the Board, dated April 22, 2003, VELCO states that it is in agreement with the above stated requests of the ANR and DPS.

The DPS filed a Determination under 30 V.S.A. § 202(f) on May 6, 2003.

No comments were received from any other parties or interested persons.

The Board has reviewed the petition and accompanying documents and agrees that, pursuant to 30 V.S.A. § 248(j), a CPG should be issued without the notice and hearings otherwise required by 30 V.S.A. § 248.

II. FINDINGS

Based upon the petitions and accompanying documents, the Board hereby makes the following findings in this matter.

1. VELCO is a company as defined by Section 201 of Title 30, Vermont Statutes Annotated, and as such is subject to the Board's jurisdiction pursuant to Section 203 of Title 30. Pet. at 1.
2. VELCO's offices are located at 366 Pinnacle Ridge Road, PO Box 548, Rutland, VT 05701. Pet. at 1.
3. VELCO owns and operates the 115 kV electric transmission system throughout the State of Vermont. Pet. at 1.

4. A part of the existing VELCO transmission system includes the 115/46 kV Cold River Substation, located in the Town of Clarendon, Vermont. The Cold River Substation provides service to the loads of Central Vermont Public Service Corporation ("CVPS") in the Rutland, Vermont, area via three 46 kV transmission lines. Pet. at 1.

5. The three 46 kV transmission lines of CVPS connected to the VELCO system at the Cold River Substation provide service to approximately one-half of the Rutland area load.

Thomas pf. at 2-3.

6. The Cold River Substation was constructed in 1980-81. Since that time, the loads it serves have doubled. In addition, ISO-New England and NEPOOL Planning Guidelines, plus VELCO reliability standards all have changed since the substation was constructed. As a result, substation improvements are required to protect against loss of load in the Rutland area. Thomas pf. at 3.

7. To provide the necessary improvements, VELCO proposes to replace two 115 kV circuit switchers in the Cold River Substation with two 115 kV circuit breakers. To make room for the necessary additional protection and control equipment, the existing control building in the substation will be expanded by approximately twelve (12) feet on its north side. Thomas pf. at 2-3; Johnson pf. at 2.

8. The proposed control building addition will increase the size of the substation fenced-in area, as that side of the building is itself a part of the fence. The proposed expansion is all on VELCO property and will have no impact on an existing drainage ditch, which is approximately 40-50 feet distant from the existing building. Thomas pf. at 5; Johnson pf. at 2.

9. The estimated cost of the proposed project is \$950,000. Thomas pf. at 16; exh. LET-10.

10. Replacement of both circuit switchers with circuit breakers is required to achieve the required level of reliability. VELCO Response 2 at 2.

11. In order to avoid the need to replace the two circuit switchers with circuit breakers, VELCO would have to lower the peak demand by at least 20% of 2002 load levels and maintain that reduced peak demand. The cost of achieving that level of peak load reduction through demand-side management or other load management programs is estimated to cost over \$50

million, far exceeding the \$1 million cost of the proposed project, and would not be achieved until approximately 2010. VELCO response 1 at 1.

Orderly Development of the Region

[30 V.S.A. § 248(b)(1)]

12. 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 any affected municipality. This finding is supported by findings 13 through 15, below.

13. The proposed project involves the upgrading of an existing substation and related facilities. Except for the 12-foot extension of the fenced-in area (due to the proposed expansion of the control building), the entire proposed project will involve upgrading equipment within existing facilities and within existing rights of way. Thomas pf. at 3-5, 6.

14. The proposed project is consistent with the year 2001 Rutland Regional Plan. Thomas pf. at 6; exh. LET-11.

15. VELCO has notified and furnished proposed project plans to the Rutland County Regional Planning Commission, the Clarendon Planning Commission, and the Clarendon Town Selectboard. None of these agencies objected to the proposed project.¹ Thomas pf. at 6.

Need For Present and Future Demand for Service

[30 V.S.A. § 248(b)(2)]

16. 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. This finding is supported by findings 4-6, 10-11, above, and 17-18, below.

17. The existing system is not adequate to serve the Rutland area loads in the event of the loss of the single existing breaker ("K-32") in the Cold River Substation. Thomas pf. at 3.

1. In addition, on March 20, 2003, the Board sent notice to these commissions, as required under 30 V.S.A. § 248(j), giving 30 days for which to file comments with the Board. No comments were received.

18. The need for this upgrade could not be avoided through a more cost-effective manner such as through demand-side management or other load reduction programs, because avoidance of this upgrade would require a 20% reduction of 2002 peak load demand and maintenance of peak demand at that reduced level. The cost of achieving the required level of load reduction is estimated to be \$50 million, far in excess of the \$1 million cost of the upgrade. Thomas pf. at 4; VELCO response 1 at 1.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

19. The proposed project will not adversely affect system stability and reliability, in fact, system reliability will be improved. This finding is supported by findings 5-7, 10-11, above, and 20-22, below.

20. The existing circuit switchers are over 20 years old and were installed to allow for system maintenance. The proposed circuit breakers will be installed for both maintenance purposes and electrical protection of the system, thus improving reliability. Thomas pf. at 5; Johnson pf. at 2.

21. The proposed upgrade will prevent loss of load in the Rutland area due to failure of the existing K-32 breaker, which otherwise would result in the loss of the two existing 115 kV circuits to North Rutland and Cold River and resulting collapse of the sub-transmission system. Thomas pf. at 3-4; exhs. LET-3, LET-8.

22. Upon completion of the proposed upgrade, a breaker failure will mean that no more than one 115/46 kV transformer will be out of service and Rutland area loads could still be supported. Thomas pf. at 4.

Economic Benefit to the State

[30 V.S.A. § 248(b)(4)]

23. The proposed project will result in an economic benefit to the State. This finding is supported by findings 9-11 and 17-18, above, and 24-27, below.

24. The total estimated cost (\$950,000) of the proposed project is broken down as follows:

Engineering:	\$ 75,000
Material:	575,000
Installation:	300,000

Thomas pf. at 16.

25. The proposed project has been approved by the New England Power Pool and classified as a Pool Transmission Facility. As a result, VELCO's share of the proposed project's costs will be approximately \$40,000. Thomas pf. at 16.

26. The impact of the proposed project on the average monthly bill of Vermont ratepayers will be negligible. Even if the proposed project were to be entirely paid for by VELCO, the impact on the average monthly bill for Vermont ratepayers would be \$0.02. Thomas pf. at 16.

27. The proposed project will result in increased taxable property and tax revenue to the Town of Clarendon. Thomas pf. at 13.

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

[30 V.S.A. § 248(b)(5)]

28. The project as proposed will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and the public health and safety. This finding is supported by findings 29 through 61 below, which are based on the criteria specified in 10 V.S.A. §§ 1424a(d) and 6086(a)(1) through (8), (8)(A) and (9)(K).

Outstanding Resource Waters

[10 V.S.A. § 1424a(d)]

29. The proposed project is not located on or near any Outstanding Resource Waters, as designated by the Water Resources Board. Thomas pf. at 8; exh. LET-9.

Water and Air Pollution

[10 V.S.A. § 6086(a)(1)]

30. The project as proposed will not result in undue water or air pollution. This finding is supported by findings 31-45, below.

31. The proposed project will not result in unreasonable air pollution because there will be no emissions from the proposed project. Vegetative materials cleared from the proposed project will be chipped. No burning will be required for this proposed project and dust will be controlled during construction. Thomas pf. at 9.

Headwaters

[10 V.S.A. § 6086(a)(1)(A)]

32. The proposed project will not be located in a headwaters area. Thomas pf. at 9.

Waste Disposal

[10 V.S.A. § 6086(a)(1)(B)]

33. The proposed project as designed will meet any applicable health and environmental conservation regulations regarding the disposal of wastes, and will not involve the injection of waste materials or any harmful toxic substances into ground water or wells. This finding is supported by findings 33-38, below.

34. The proposed project will meet all applicable health and Vermont Department of Environmental Conservation regulations for waste disposal. Thomas pf. at 10.

35. The proposed project will cause no discharge of any substance into the ground water or wells, either direct or indirect. Thomas pf. at 10.

36. All construction debris will be disposed of at a state-approved landfill. Thomas pf. at 10.

37. All trees and brush that must be cleared, if any, will be removed or chipped. Thomas pf. at 9.

38. There are no sanitary facilities proposed to be constructed at the subject substation. Thomas pf. at 10.

39. The proposed project will not result in major increases in storm water flow. Thomas pf. at 10.

Water Conservation

[10 V.S.A. § 6086(a)(1)(C)]

40. The proposed project uses no water. Thomas pf. at 10.

Floodways

[10 V.S.A. § 6086(a)(1)(D)]

41. The proposed project is not located in a flood boundary or flood plain. Thomas pf. at 10.

Streams

[10 V.S.A. § 6086(a)(1)(E)]

42. There are no shorelines or rivers which will be traversed or adversely impacted by this project. Thomas pf. at 11.

Shorelines

[10 V.S.A. § 6086(a)(1)(F)]

43. The proposed project will not be located near any shorelines. Thomas pf. at 11.

Wetlands

[10 V.S.A. § 6086(a)(1)(G)]

44. There are no wetlands in the vicinity of the proposed project. Thomas pf. at 11.

45. A drainage ditch built to divert water around the subject substation is located about 40-50 feet away from the existing fence on the side where the existing control building is proposed to be enlarged. VELCO will place a silt fence and hay bales between the proposed work area and the existing ditch in order to not adversely affect it. Thomas pf. at 11.

Sufficiency of Water And Burden on

Existing Water Supply

[10 V.S.A. § 6086(a)(2)(3)]

46. The proposed project will not require the use of water and will not place a burden on any existing water supply. Thomas pf. at 12.

Soil Erosion

[10 V.S.A. § 6086(a)(4)]

47. The proposed project as designed will not result in unreasonable soil erosion or reduce the ability of the land to hold water. This finding is supported by findings 48 through 50, below.

48. The proposed construction will occur entirely at the existing substation site. The proposed construction will include grading for the foundation of the proposed control building addition. As a result, there will be minimal soil disturbance. Thomas pf. at 12.

49. No road construction or access road construction is proposed for this proposed project. Johnson pf. at 2.

50. Erosion control during construction will include the use of hay bales, silt fences and stone check dams. The silt fence and hay bales will be placed between the proposed work area and the existing ditch. Stone check dams will be installed in the existing ditch to further filter potential silty water. Heavy equipment used for excavation of the foundation for the proposed building expansion will work from the existing driveway. Johnson pf. at 3; ANR letter dated April 18, 2003.

Traffic

[10 V.S.A. § 6086(a)(5)]

51. The proposed project will not cause unreasonable congestion or unsafe conditions with respect to transportation systems, since the proposal is to upgrade an existing substation at an existing site. Thomas pf. at 12.

52. Traffic congestion, if any, during construction will be kept to a minimum since all of the proposed construction will take place at the existing substation site, which is in a rural area and away from busy town streets and state highways. Construction vehicles should be able to park at the existing parking lot adjacent to the existing substation site. Johnson pf. at 3; Thomas pf. at 13.

Educational Services

[10 V.S.A. § 6086(a)(6)]

53. The proposed project will have no impact on educational services. Thomas pf. at 13.

Municipal Services

[10 V.S.A. § 6086(a)(7)]

54. The proposed project will not require any additional municipal or governmental services. Thomas pf. at 13.

**Aesthetics, Historic Sites or Rare
And Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

55. The proposed project will not have an undue adverse effect on the scenic or natural beauty of the area, or upon aesthetics, historic sites or rare and irreplaceable natural areas. This finding is supported by findings 56 through 59, below.

56. Proposed lighting to be installed consists of four exterior 70-watt high pressure sodium lights, which will only be turned on and used when required for night work. Johnson pf. at 3.

57. The proposed upgraded substation will be primarily within the existing substation fence. The existing substation is not visible from the road or any residence and the proposed project will not change that. Thomas pf. at 7.

58. There are no known historic or archaeological sites that would be adversely affected by the proposed project. None exist within the proposed project boundaries. Thomas pf. at 8.

59. There are no known rare and irreplaceable natural areas in the proposed project area. Thomas pf. at 14.

Discussion

_____Based on the above findings, the Board finds that this 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 (January 1986).

As required by this decision, it is first appropriate to determine if the impact of the proposed project will be adverse. The proposed project would have an adverse impact on the aesthetics of the area if its design were out of context or not in harmony with the area in which it is located. If it is found that the impact would be adverse, it is then necessary to determine whether such an impact would be "undue." Such a finding would be required if the proposed project: (1) violated a clear written community standard intended to preserve the aesthetics or scenic beauty of the area; (2) if it would offend the sensibilities of the average person; or if (3) generally available mitigating steps were not taken to improve the harmony of the proposed project with its surroundings. The Board's assessment of whether a particular project will have an

"undue" adverse effect based on these three standards will be significantly informed by the overall societal benefits of the project.²

_____The proposed project will not have an adverse effect on the aesthetics of the area. The existing substation is not visible from the road or any residence. Since the proposed project will be primarily within the existing substation fenced area, the existing aesthetic impact will not change.

Necessary Wildlife Habitat and

Endangered Species

[10 V.S.A. § 6086(a)(8)(A)]

60. The proposed project will not impact any designated natural areas, necessary wildlife habitat or known endangered species sites. Thomas pf. at 14.

Development Affecting Public Investments

[10 V.S.A. § 6086(a)(9)(K)]

61. The proposed project is not located near and, therefore, will not unnecessarily or unreasonably endanger the public or quasi-public investments in any governmental public utility facilities, services, 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 such facilities, services, or lands. Thomas pf. at 15.

Public Health and Safety

[30 V.S.A. § 248(b)(5)]

62. The proposed project will have no adverse effect on public safety. All construction will be in accordance with the requirements of the National Electrical Safety Code. Thomas pf. at 15; Johnson pf. at 2; Public Service Board Rule No. 3.500.

Compliance With Electric Energy Plan

2. The Board will consider, for example, the possible reduction in the need for a power plant, transmission investments, or other social costs.

[30 V.S.A. § 248(b)(7)]

63. The DPS has determined, in a letter dated May 6, 2003, that the proposed project is consistent with the Vermont 20-Year Electric Plan in accordance with 30 V.S.A. § 202(f), provided that the actions of VELCO in this matter are consistent with the petition and testimony. DPS Section 202(f) Determination.

Outstanding Water Resources

[30 V.S.A. § 248(b)(8)]

64. No designated Outstanding Resource Waters will be affected by the proposed project. This finding is supported by finding 29, above.

Existing Transmission Facilities

[30 V.S.A. § 248(b)(10)]

65. The proposed project can be served economically by existing transmission facilities without undue adverse effect on Vermont utilities or customers. This finding is supported by findings 3-11 and 16-27, above.

III. CONCLUSION

Based upon all of the above evidence, the proposed construction will be of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; the public interest is satisfied by the procedures authorized in 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

IV. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the replacement of two existing 115 kV circuit switchers with two 115 kV circuit breakers and the expansion of an existing control building, all within the existing Cold River Substation, located in the Town of Clarendon, Vermont, will promote the general good of the State of Vermont in accordance with 30 V.S.A. § 248, and a certificate of public good shall be issued in this matter.

Dated at Montpelier, Vermont, this 20th day of May, 2003.

s/Michael H. Dworkin)

PUBLIC SERVICE

s/David C. Coen)

BOARD

s/John D. Burke)

OF VERMONT

OFFICE OF THE CLERK

FILED: May 20, 2003

ATTEST: s/Susan M. Hudson
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.