

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 6647

Petition of Green Mountain Power Corporation)
for a certificate of public good, pursuant to 30)
V.S.A. § 248(j) for Authority to Reconstruct its)
3332 Line Between Queen City Substation #32)
and Dorset Street Substation #78)

Order entered: 4/10/2002

I. INTRODUCTION

This case concerns a petition filed by Green Mountain Power Corporation ("GMP") pursuant to 30 V.S.A. § 248(j). In its petition, GMP requests Board approval of the reconstruction of its 3332 line (the "Project"), consisting of increasing the conductor size to sustain a first contingency condition on the 2.5 mile segment of the 3332 line between the Queen City Substation #32 in Burlington, Vermont, and the Dorset Street Substation #78 in South Burlington, Vermont.

GMP filed proposed findings, a proposed order and a proposed certificate of public good ("CPG") on February 5, 2002. Notice of the filing was sent on March 7, 2002, to all parties specified in 30 V.S.A. § 248(a)(4)(C) and to any other interested persons. Notice was also published in the *Burlington Free Press* on March 11, 2002, and on March 18, 2002. 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 April 5, 2002. No comments were filed in response to the notice.

The Board has reviewed the petition and accompanying documents and concludes 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 petition and accompanying documents, the Board hereby makes the following findings in this matter.

1. GMP proposes to reconstruct and upgrade the 2.5 mile segment of the 3332 line between Queen City Substation #32 and Dorset Street Substation #78 commencing by April 15, 2002, in order to meet a completion date of May 15, 2002. The Project will increase the conductor size in order to sustain a first contingency condition and will reduce the losses on the Queen City to Dorset Street segment. GMP proposes to increase the conductor rating from a nominal 529 amps (Linnet) to a nominal 907 amps (Drake). Cecchini pf. at 1.

2. The 3332 – 3314 lines normally have sources at both ends (Queen City VELCO and Essex VELCO) so that no single segment carries the entire electrical load served by these lines (most of South Burlington and Williston). When the Essex source is lost (a first contingency situation), the entire 3332 – 3314 line load must be carried by the Queen City to Dorset Street segment. There were 575 hours in 2001 when this load would have exceeded the short-term emergency rating (600 amps) of the conductor. GMP has an operational procedure in place that requires the system operator to interrupt 8 Mw of load if the short-term emergency rating is exceeded. If, for any reason (e.g. communication failure), the load is not reduced below 600 amps within ten minutes, automatic relaying will interrupt 40 Mw of load including the University Mall and the Burlington International Airport. After the 3332 line reconstruction Project is complete, GMP will discontinue this operational procedure and disable the automatic relaying. Cecchini pf. at 2.

3. GMP chose Drake as the appropriate conductor size because the next smaller standard size (Elgin) does not have the nominal capacity to handle the documented peak contingency load. The next larger standard size (Rail) was not chosen because it requires a significant increase in pole height and/or numbers. Cecchini pf. at 2.

4. The change in conductor size necessitates pole replacement because a larger conductor requires either taller or more poles to maintain the same conductor to ground clearances. Cecchini pf. at 2.

5. For this Project, the total number of poles will increase by one to 39. New poles will replace existing poles one for one except for the addition of two poles: one in the cross country section between Swift Street and 1-189 East, and the other a replacement for a distribution pole under the existing line. No pole will be more than 10 feet taller than its replacement. Four poles will be ten feet taller and eleven five feet taller. Nine have no change in height and thirteen in the vicinity of the U.S. Route 7 – Interstate 189 intersection and on Swift Street will be shorter due mostly to the reduction in elevation of the on-ramps since the line was originally constructed. One pole in the middle of a driveway shared by two buildings on Swift Street will be moved to the side. Cecchini pf. at 3.

6. Because pole locations are not being significantly changed and the increase in some pole heights will be offset by a lowered height in other locations, the overall aesthetic impact should be negligible. The lowered pole heights are in the most visible portion of the project. Also three of the four existing poles with vertical construction are being changed to horizontal construction to reduce pole height requirements. Cecchini pf. at 3; pet. exh. B.

7. There are two segments of distribution underbuild arising out of the 3332 line upgrade. The conductor from the Dorset Street Substation to Spear Street will be increased from 3/0 to 477 MCM (GMP's largest standard distribution conductor) to accommodate this segment's potential use as a main line egress from the substation. The segment from Spear Street to Meadow Lane on Joy Drive will utilize the same conductor (1/0) because the loss savings do not support conductor replacement. Cecchini pf. at 3.

Orderly Development of the Region

[30 V.S.A. § 248(b)(1)]

8. The 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 the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. As a reliability project, it will sustain a first contingency condition and, thus, it will enhance power reliability, thereby contributing to the orderly development of the region. Cecchini pf. at 5

9. GMP contacted representatives of the Burlington and South Burlington Departments of Public Works and Planning Departments regarding the impact of the Project on their communities. No objections or concerns were raised about the Project. Cecchini supp. pf. at 2.

10. Review of the "City of South Burlington, Vermont 2001 Comprehensive Plan," adopted April 16, 2001, the "City of Burlington, Vermont 2001 Municipal Development Plan," adopted June 4, 2001, and the "2001 Chittenden County Regional Plan," adopted October 9, 2001, reveal no provisions that would suggest that the Project will unduly interfere with the orderly development of the region. Cecchini supp. pf. at 2 and 3; findings nos. 1 and 2, above.

Need for Present and Future Demand for Services

[30 V.S.A. § 248(b)(2)]

11. The Project, because it will sustain a first contingency condition, 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 conservation programs and measures and energy efficiency and load management measures. Cecchini pf. at 2; findings nos. 1 - 3, above.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

12. The Project, for the reasons discussed in findings nos. 1 through 3 above, will enhance and will not adversely affect system stability or reliability. Cecchini pf. at 1 and 2.

Economic Benefit to the State

[30 V.S.A. § 248(b)(4)]

13. By enhancing GMP's system stability and reliability, at a cost of approximately \$502,500, the Project will result in an economic benefit to the state and its residents. Finding No. 8, above; Cecchini pf. at 1 and 2; Cecchinni supp. pf. at 1 and 2.

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

[30 V.S.A. § 248(b)(5)]

14. The project will not have an undue adverse affect on aesthetics, historic sites, and water purity, the natural environment or the public health and safety, based upon the criteria specified

in 10 V.S.A. §§ 1424a(d) and 6086(a)(1) through (8) and (9)(K). This finding is supported by findings nos. 15-30, below.

Outstanding Resource Waters

[10 V.S.A. § 1424a(d)]

15. There are no watercourses in the vicinity of the Project that have been designated as outstanding resource waters. Cecchini pf. at 4.

Water and Air Pollution

[10 V.S.A. § 6086(a)(1)]

16. The Project will not produce any emissions or waste and, accordingly, will not result in undue water and air pollution. Cecchini pf. at 4. This finding is also supported by the specific findings under the criteria of 10 V.S.A. § 6086(a)(1)(A) through (G), below.

Headwaters

[10 V.S.A. § 6086(a)(1)]

17. Based on its location, the Project will not have an undue adverse impact on any headwaters. Cecchini pf. at 4.

Waste Disposal

[10 V.S.A. § 6086(a)(1)(B)]

18. Because the Project will not result in the production of any wastes, it will meet all applicable health and Environmental Conservation Department regulations for the disposal of wastes, and will not involve the injection of waste materials or any harmful or toxic substances into ground water or wells. Cecchini pf. at 4.

Water Conservation

[10 V.S.A. § 6086(a)(1)(C)]

19. The Project will not utilize water during or after construction, and, accordingly, the criteria specified in 10 V.S.A. § 6086(a)(1)(C) relating to water conservation is inapplicable. Cecchini pf. at 4.

Floodways

[10 V.S.A. § 6086(a)(1)(D)]

20. The 3332 line is not located on a floodway. Cecchini pf. at 4.

Streams

[10 V.S.A. § 6086(a)(1)(E)]

21. There are no streams near the 3332 line which would be impacted by the Project. Cecchini pf. at 4.

Shorelines

[10 V.S.A. § 6086(a)(1)(F)]

22. The Project will not be located near any shorelines. Cecchini pf. at 4.

Wetlands

[10 V.S.A. § 6086(a)(1)(G)]

23. The Project will not result in an undue adverse impact on wetlands. Cecchini pf. at 4.

Sufficiency of Water and Burden on Existing Water Supply

[10 V.S.A. § 6086(a)(2) and (3)]

24. The Project does not require water to function and so will not use any significant amounts of water and will not place a burden on any existing water supply. Cecchini pf. at 4.

Soil Erosion

[10 V.S.A. § 6086(a)(4)]

25. Because the Project adds only one pole and relocates one other and any excavation required for installation will be restored with appropriate seeding and mulching or other mitigation for soil erosion, the Project will not result in unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result. Cecchini pf. at 3.

Transportation System

[10 V.S.A. § 6086(a)(5)]

26. Because the Project does not involve any significant change in the location of poles, the Project will not cause unreasonable congestion or unsafe conditions with respect to the use of highways, waterways, railways, airports and airways and other means of transportation existing or proposed. Cecchini pf. at 3.

Educational Services

[10 V.S.A. § 6086(a)(6)]

27. The Project is unrelated to and, thus, will not cause any burden on the ability of any municipality to provide educational services. Cecchini pf. at 1 and 2.

Municipal Services

[10 V.S.A. § 6086(a)(7)]

28. The Project will not require any municipal or governmental services. Cecchini pf. at 4.

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

[10 V.S.A. § 6086(a)(8)]

29. Because of the limited size changes and same location as the existing 3332 line, the Project will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, or rare and irreplaceable natural areas. This finding is supported by findings nos. 3-7, above.

Discussion

Based on the above findings, we find 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, we rely 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 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 is 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 that such an 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 will not be taken to improve the harmony of the proposed Project with its surroundings.

Given the facts of this case, it is difficult to find that this proposed Project would have an adverse effect on the aesthetics of the area because the Project will be visually very similar to the existing line that it will replace. Therefore, after completion of construction, most observers will not, most likely, be able to distinguish the new changes from the configuration of the existing transmission line.

Necessary Wildlife Habitat and Endangered Species

[10 V.S.A. § 6086(a)(8)]

30. Because its location is not being changed and is in an urban area, the Project will not significantly destroy or significantly imperil necessary wildlife habitat or any endangered species. Cecchini pf. at 4.

Development Affecting Public Investments

[10 V.S.A. § 6086(a)(9)(K)]

31. The Project will not unnecessarily or unreasonably endanger the public or quasi-public investment in the facilities listed in 10 V.S.A. § 6086(a)(9)(K), 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. Cecchini pf. at 1-4.

Compliance with Executive Order #52 – Agricultural Land

32. Because its location is not being changed and is in an urban area, the Project will have no effect on any prime agricultural soils. Cecchini pf. at 4.

Least-Cost Plan

[30 V.S.A. § 248(b)(6)]

33. Based on findings nos. 1 through 4 above, the Project is consistent with the principles for resource selection expressed in GMP's approved least-cost Integrated Resource Plan.

Compliance with Electric Energy Plan

[30 V.S.A. § 248(b)(7)]

34. Because the Project will result in GMP being able to sustain a first contingency condition, the Project is consistent with the Vermont Twenty-Year Electric Plan, in accordance

with 30 V.S.A. § 202(f). Cecchini pf. at 1-2; findings 1 and 2, above; letter from the Department of Public Service, dated April 8, 2002.

Existing Transmission Facilities

[30 V.S.A. § 248(b)(10)]

35. The Project is an upgrade of transmission facilities and thus, the criterion relating to whether the Project can be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers is inapplicable. Petition at 1.

III. CONCLUSION

_____Based upon the foregoing findings, the project is 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; and the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j). Furthermore, the project is needed to ensure reliable electric service, and will promote the general good of the State of Vermont by providing such service.

IV. ORDER

_____IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the upgrade and reconstruction of the 3332 line between Queen City Substation #32 and Dorset Street Substation #78 by Green Mountain Power Corporation, as described in the evidence and plans submitted in this proceeding, will promote the general good of the State of Vermont in accordance with 30 V.S.A. § 248, and a certificate of public good to that effect shall be issued.

_____ Dated at Montpelier, Vermont, this 10th day of April, 2002.

_____)	PUBLIC SERVICE
)	
_____)	BOARD
)	
_____)	OF VERMONT

OFFICE OF THE CLERK

Filed: April 10, 2002

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 mail) of any apparent, 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.