

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Joint Petition of Vermont Electric Power Company, Inc.,)
(VELCO) Vermont Transco LLC, Green Mountain Power)
Corporation (GMP) and Vermont Electric Cooperative, Inc.)
(VEC) for a Certificate of Public Good pursuant to)
30 V.S.A. § 248(j) authorizing them to upgrade VELCO's)
Tafts Corners substation in Williston, Vermont and to)
Remove VEC's existing substation)

Docket No. ____

Order Entered: _____

Present: _____, Hearing Officer

APPEARANCES:

William Piper
Joslyn Wilschek
Primmer Piper Eggleston & Cramer PC for the
Vermont Electric Power Company, Inc. and
Vermont Transco LLC

Vickie Brown
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Vermont Electric Cooperative, Inc.

Benjamin Marks
Green Mountain Power Corporation

_____, Esq. for the Department of
Public Service

_____, Esq. for the Agency of Natural
Resources

PROPOSAL FOR DECISION

I. INTRODUCTION

This case concerns a Petition filed by the Vermont Electric Power Company, Inc., Vermont Transco LLC (collectively referred to as “VELCO”), Vermont Electric Cooperative Inc. (VEC), and Green Mountain Power Corporation (Green Mountain Power) (together referred to as “Petitioners”) on ___ 2008, requesting a Certificate of Public Good (CPG) under 30 V.S.A. § 248(j) to upgrade the VELCO Tafts Corners Substation in Williston, Vermont and to allow VEC to retire its substation in Williston, Vermont.

The Petitioners have served prefiled testimony, proposed findings, and a proposed order (along with a prospective CPG) on the parties 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 _____, 2008, 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 needed to file comments with the Vermont Public Service Board (Board) on or before _____.

The Department of Public Service (DPS) filed its comments with the Board on _____, 2008. In its comments, the DPS supported the proposed Project and did not request a hearing.

The Agency of Natural Resources (ANR) filed its comments with the Board on _____, 2008. In its comments, the ANR supported the proposed Project and did not request a hearing.

The DPS also filed a Determination under 30 V.S.A. § 202(f) on _____.

No comments were received by 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 Petition and accompanying documents, the Board hereby makes the following findings in this matter.

1. Petitioners are companies as defined by 30 V.S.A. § 201, and as such are subject to the Vermont Public Service Board's (Board) jurisdiction pursuant to 30 V.S.A. § 203. Petition at 1.
2. VELCO's offices are located at 366 Pinnacle Ridge Road, Rutland, VT 05701. VELCO owns and operates most of the Vermont high voltage transmission network (115 kV and above). Petition at 1.
3. Green Mountain Power's offices are located at 163 Acorn Lane, Colchester, Vermont.
4. VEC's offices are located at 42 Wescom Road, Johnson, Vermont. Petition 1.
5. Green Mountain Power and VEC own subtransmission and distribution facilities in Chittenden County. Petition 2.
6. The Project consists of the following additions within the existing fenced-in yard of the VELCO Tafts Corners Substation in Williston, Vermont:
 - a) Three (3) 115 kV circuit breakers and associated equipment.
 - b) 115 kV structural steel, buswork, and disconnect switches.
 - c) One (1) new power transformer, rated capacity of 25/33.3/41.7 MVA, 115/12.47 kV, with +/- 10% Load Tap Changer.
 - d) One (1) 12.47 kV indoor metalclad switchgear lineup consisting of two (2) 3,000 amp bank breakers, ten (10) feeder breakers, and one (1) 3,000 amp bus tie breaker.
 - e) Protection, control and metering switchboards.

- f) One (1) transformer foundation and oil containment for the new transformer listed above.
- g) Equipment foundations for cable riser stands, underground conduits, and cables.
- h) Cable riser stands for the new transformer, and cable riser stands and disconnect switches to allow for a mobile transformer connection.
- i) Second battery system to provide redundancy.
- j) One (1) take-off structure within the substation for the 12.47 kV and 34.5 kV circuits to exit from the south end of the substation.
- k) One (1) transitional structure within the substation for the existing 34.5 kV circuit.

Petition 2; Prefiled Testimony of Scott Mallory (Mallory pf.) at 2-3.

- 7. ISO-NE has reviewed the Project design and potential for impacts to the bulk power system of New England and has issued a letter of no adverse impact allowing VELCO permission to construct. Mallory pf. at 9.
- 8. There are two Project impacts outside of the substation yard. The Petitioners have chosen to improve the Project's aesthetic impacts by removing the first two 34.5 kV poles immediately south of the substation that transition up to the 34.5 kV H-frame at the end of I-89. The Petitioners will replace them with a new take-off structure and a transitional structure built at a lower elevation within the substation. Mallory pf. at 4.
- 9. VEC also intends to remove its Williston Substation as part of the Project. Mallory pf. at 4.
- 10. Additionally, as explained below, there are distribution upgrades related to the Project that will occur outside of the substation. Mallory pf. at 4.
- 11. Green Mountain Power and VEC plan to install distribution components that are related to the Project, but are not subject to Section 248. Prefiled Testimony of Terry Cecchini (Cecchini pf.) at 5; Prefiled Testimony of Harry Abendroth (Abendroth pf.) at 5-6.

12. Green Mountain Power will install two new underground circuits connecting the existing control building at the Tafts Corners Substation with the area overhead distribution system on Route 2A and Route 2. VELCO installed the conduit for the portions of the circuits between the control building and the substation boundary as part of the original Tafts Corners Project. Green Mountain Power installed the conduit between Linens & Things and the overhead system in connection with other projects. As a result, new conduit is needed only for the approximately 550-foot distance between the substation boundary and Linens & Things. This conduit is located adjacent to the existing Tafts Corners Substation access road on previously disturbed land. Green Mountain Power will install cable in the conduit system described above. Cecchini pf. at 4-5; Exh. Green Mountain Power-Cecchini-3.
13. The placement of new underground circuits, involving only 550 feet of new conduit located entirely under previously-disturbed land, does not materially affect any Section 248 criteria. Because Green Mountain Power's facilities involve only distribution improvements, there is no need for a stability analysis. Cecchini pf. at 5-6.
14. VEC will construct two (2) new three-phase distribution lines between the Tafts Corners Substation control house and the end of its existing overhead distribution line at Hurricane Lane in Williston in order to connect the Project to its distribution system. These new circuits will utilize a mix of underground and overhead construction. The underground construction will occur inside the fence of the existing Tafts Corners Substation. The underground lines will transition to overhead construction at a steel structure located inside the existing substation. The new lines will cross Interstate 89 (I-89) on existing double-pole structures, one on each side of the highway. Between the

southbound side of I-89 and Hurricane Lane, the new lines will be constructed within the existing VELCO right-of-way. Both circuits will be placed on a cross arm to be added to the existing 34.5 kV transmission structures that were constructed with provisions for future distribution line construction. VEC will install a tie-switch at the end of the new lines to facilitate breaker maintenance without interrupting service to its consumer-members. Abendroth pf. at 5.

15. In order to provide safe working conditions for the VELCO transmission line structures supporting the existing 34.5 kV line and VEC's proposed distribution circuits, VEC will install provisions for connection of a mobile substation in the vicinity of the LeClair Switch. A mobile substation will be installed at this location when VELCO must perform maintenance on its transmission line structures. VEC will perform this work after its Williston Substation is removed from service. Abendroth pf. at 6.
16. The budgetary estimate for this Project, which does not include the cost for VEC to retire its Williston Substation or costs associated with the distribution upgrades, is \$9.3 million. Mallory pf. at 9; Exh. VELCO-Mallory-7.
17. The Petitioners have signed a cost allocation agreement. Mallory pf. at 11; Exh. VELCO-Mallory-9.
18. The Petitioners expect ISO-NE to issue a letter approving VELCO's request to treat up to \$2.25 million as PTF with New England regional rate treatment via ISO-NE's tariff. Mallory pf. at 11-12.

Orderly Development of the Region

[30 V.S.A. § 248(b)(1)]

19. The proposed Project will not unduly interfere with the orderly development of the region, as supported by Findings 20 through 27 below.
20. In Docket 6839, the Board concluded that the Tafts Corners Substation would not unduly interfere with the orderly development of the region, with due consideration given to the recommendations of the Town of Williston's and the Chittenden County Regional Planning Commission's plans. The Project does not change this conclusion because the proposed upgrades fit within the existing fence and improve the electric sub-transmission and distribution systems. In fact, the expansion being proposed here was specifically contemplated in Docket 6839. Mallory pf. at 15-18.
21. The 2006 Town of Williston Comprehensive Plan (WCP) includes recommendations for the siting of transmission lines and associated facilities:

The Public Service Board should confine new transmission lines and associated facilities to existing utility corridors, and require that they be placed underground where feasible. Utility lines and pole placements, and substation siting or expansion should minimize disturbance to wetlands, streams, wildlife habitat, views, and other natural and historic resources. The clearing of existing vegetation should be minimized.

(WCP at 71.) Mallory pf. at 16.
22. In Appendix F, at pages F-2 and F-3, the WCP anticipates upgrades to the VELCO transmission system located within the Town. Appendix F specifically notes that the Tafts Corners Substation "was designed to allow for the installation of two additional 115 kV to 12.5 kV step-down transformers" and that "VEC anticipates the need for additional

- upgrades within the next five years, either as a joint-venture with GMP at the Tafts Corners Substation or in the form of a new substation.” Mallory pf. at 16.
23. The Petitioners designed the Project to optimize the use of the existing utility infrastructure in Williston and also designed the Project to confine the proposed additional utility infrastructure within the existing substation yard. As a result, this Project has no impact on wetlands, streams, wildlife habitat, views, and other natural and historic resources. Mallory pf. at 16.
24. The Town of Williston waived the 45-day advance notice requirement in 30 V.S.A. § 248(f). Mallory pf. at 17; Exh. VELCO-Mallory-11.
25. The Chittenden County Regional Planning Commission (CCRPC) adopted its Chittenden County Regional Plan on August 28, 2006 (CCRP). The CCRP states as a policy objective that “[e]nergy production, transmission, and distribution infrastructure in Chittenden County should be efficient, reliable, cost-effective, and environmentally responsible.” Further, the CCRP adopts a policy that “a larger share of the Region’s energy needs should be supplied by a combination of responsible new generation in the Region, maintenance of renewable power sources (such as hydroelectric power), *improved transmission*, and gains made through increased efficiency and conservation.” (CCRP at 10.14, emphasis added.) In terms of stimulating economic development, the CCRP states that the “State and municipalities should support infrastructure investment to foster economic development in areas planned for development.” (CCRP at 6.13.) Mallory pf. at 17-18.
26. Consistent with the CCRP, the Petitioners designed the Project to improve the electric sub-transmission and distribution systems, making the electric infrastructure system more

dependable. In addition, the Petitioners planned the Project entirely within an existing transmission substation yard, thereby minimizing the aesthetic and environmental effects of placing facilities in a new location. Mallory pf. at 17.

27. The CCRPC waived the 45-day advance notice requirement of Board Rule 5.400 and 30 V.S.A. 248(f). Mallory pf. at 18; Exh. VELCO-Mallory-12.

Need for Present and Future Demand for Services

[30 V.S.A. § 248(b)(2)]

28. This Project represents a transmission solution, i.e. installing additional transmission equipment in the substation, to address two distinct distribution problems in the area of need. The area of need consists of the greater Williston area, which includes portions of Williston, St. George, Shelburne, and South Burlington. Green Mountain Power and VEC provide distribution service to this area. In turn, VELCO's 115 kV transmission network and area 34.5 kV sub-transmission network serve these distribution systems. Mallory pf. at 4-5; Exh. VELCO-Mallory-6.
29. Specifically, VELCO delivers power to its Tafts Corners and Essex substations, which supply the sub-transmission and distribution systems of Green Mountain Power and VEC. The 34.5 kV sub-transmission system feeds the area of need through Green Mountain Power's Digital and Essex substations and VEC's Williston substation. The customers fed from the distribution circuits emanating from the Digital, Essex, and VEC Williston substations comprise the area of need. Mallory pf. at 5.
30. According to Green Mountain Power and VEC, the area of need contains approximately 2,458 and 1,011 end user accounts respectively. VELCO's Tafts Corners Substation is a

critical element of the transmission and distribution system in this area as it supports the 34.5 kV systems of Green Mountain Power and VEC. Mallory pf. at 5-6.

31. VEC and Green Mountain Power need the proposed upgrades now for different reasons. Green Mountain Power needs additional distribution capacity to meet the increasing loads in the Williston area and to reduce load on its Digital Substation transformer to avoid an overloaded condition. Projected load growth in the Williston area is expected to exceed the normal operating capacity limits of the 43G2, 43G4, and 19G3 distribution circuits in 2009, as well as the capacity of the Digital Substation transformer that supplies much of this load. Mallory pf. at 6; Cecchini pf. at 2-3; Exh. Green Mountain Power-Cecchini-1.
32. Most of Green Mountain Power's load in the Williston, Vermont area (Williston Area) is served by the Digital Substation. Sustained growth in the Williston Area since the late 1990's, particularly in the vicinity of Tafts Corners, has created the need for multiple distribution infrastructure upgrades. These improvements included (i) line upgrades to permit reallocation of load between feeders and (ii) a new distribution circuit to provide an additional source out of Essex (19G3). Although these improvements have postponed the need for a new substation for about a decade, the lack of a distribution source near the Williston Area load center has become increasingly problematic. Thus, an additional source is needed to serve the Williston Area in the near future. The addition of two new distribution circuits will increase electric supply into the Williston area by approximately 14 MW, providing adequate capacity until the 2020's at present growth rates. Cecchini pf. at 2-3; Exh. Green Mountain Power-Cecchini-1.

33. Proposed additional load from the expansion of Technology Park and other proposed loads in South Burlington together with the projected Williston Area growth will lead to the overload of the Digital Substation transformer. The Project will address this problem by transferring load from the Digital Substation to the proposed Tafts Corners Substation Project, thereby permitting the Digital Substation to reliably serve the expected load increases. Cecchini pf. at 3; Exh. Green Mountain Power-Cecchini-1.
34. Although increased load might be served by expanding other nearby substations, these alternatives are inferior because their greater distance from the load center results in higher electrical losses and the need for significant additional distribution infrastructure (new express distribution feeder lines). Cecchini pf. at 3-4; Exh. Green Mountain Power-Cecchini-2.
35. VEC needs to replace an aged substation. VEC's Williston Substation has reached the end of its useful life and needs to be replaced or rebuilt to improve reliability, capacity, and safety. The nameplate capacity of VEC's substation will be exceeded by 2011. The existing substation site is very congested, does not meet present-day National Electric Safety Code requirements for clearances to live parts, and does not meet present-day Williston zoning requirements. Maintenance of critical substation components cannot be performed without service interruptions. Due to the small piece of property on which the VEC substation is located, reconstruction of the existing substation at the same location is not a viable option. The Project eliminates the need for VEC to construct and operate a separate substation in the Town of Williston. Mallory pf. at 7; Abendroth pf. at 4.
36. From VEC's perspective, the Project is essentially a replacement for its existing Williston Substation. Abendroth pf. at 2-3.

37. Expansion of the existing Tafts Corners Substation is the preferred option because it eliminates the need for VEC to construct a separate new substation in the Town of Williston. In addition, two-thirds of the load served by the existing Williston Substation is located within one-half mile of the Project. This makes the Project site the ideal location for a replacement of the existing substation, because it is located close to a large portion of the load that it serves. Abendroth pf. at 4.
38. The existing VEC Williston Substation is located near the intersection of Route 2A and Old Creamery Road in the Town of Williston. It was placed in service in 1969, and serves VEC's consumer-members in Williston, St. George and Shelburne. The substation has a nameplate rating of 5 MVA. Electric energy is delivered to this substation via a VEC 34.5 kV transmission line extending from the LeClair Switch to the substation site. At the LeClair Switch, VEC connects to a jointly-owned Green Mountain Power Corporation/VEC 34.5 kV line that originates at the existing Tafts Corners Substation. Abendroth pf. at 3.
39. Since the primary reason for VEC's participation in the Project is the replacement of an existing substation that is at the end of its useful life, there is no viable alternative to replacing the capacity of the substation to be retired. Energy efficiency, customer-owned generation, etc., will not eliminate the need to replace the function of the existing Williston Substation. Abendroth pf. at 4.
40. The Project directly addresses Green Mountain Power and VEC's problems by: (1) providing additional load serving capacity to the distribution system in the area of need via a new transformer connected to the 115 kV transmission system with new 12.47 kV circuits; (2) reducing the loads on the 34.5 kV Digital Substation transformer (Green

Mountain Power will shift load from the 12.47 kV circuits served from the 34.5 kV system to the new 12.47 kV circuits at Tafts Corners served from the 115 kV system); and (3) allowing VEC to replace and remove its aged Williston Substation and serve its customers more reliably, due to redundancy in design for maintenance purposes, without having to build a new substation. The Project solves these needs on a joint basis among the Petitioners with a previously anticipated incremental upgrade to an existing substation. Mallory pf. at 7.

41. If VELCO does not provide additional distribution capacity in the project area for Green Mountain Power and VEC, the above-mentioned distribution lines, and/or sub-transmission transformer will likely overload under peak load conditions with expected growth in the coming years. This could result in customer outages, inability to serve some portion of electrical load, and equipment damage. Mallory pf. at 8.
42. The benefits indentified above could not be achieved in a more cost-effective manner by energy efficiency, generation, conservation or other load management measures. Mallory pf. at 12-13; Exh. VELCO-Mallory-10.
43. Savings from energy efficiency cannot reduce load fast enough, initially or against expected future load growth, to defer Green Mountain Power's date of need (i.e., 1.63 MW of potential cumulative energy efficiency savings after seven years compared to the required load reduction of 7.04 MW). Mallory pf. at 13; Exh. VELCO-Mallory-10.
44. As for VEC's need to replace its Williston Substation, energy efficiency would not be an equivalent alternative because a reduction in electrical demand would not eliminate the need to replace the function of the existing VEC Williston substation to serve its 1,011 customers. Mallory pf. at 13; Exh. VELCO-Mallory-10.

45. Although generation could produce savings by deferring Green Mountain Power's need for five years, the expected savings are not substantial (approximately \$810,000). Further, there are significant technological risks associated with distributed generation resources that outweigh the savings of distributed generation. These risks derive from the numerous unknown factors related to such resources, such as site location, fuel supply, operational procedures/experience, electrical equivalence, interconnection costs, and capital investment constraints. In 2006, these savings were estimated at \$153,000 at which point in time the Petitioners decided to pursue the Project. In addition, distributed generation would not satisfy VEC's need to replace its existing substation. A reduction in electrical demand would not eliminate the need to replace the function of the existing VEC Williston substation. Mallory pf. at 13-14; Exh. VELCO-Mallory-10.
46. Further, given the required frequency and duration of hypothetical load management events, load management is not an equivalent alternative to meet either Green Mountain Power's or VEC's current needs. Mallory pf. at 14; Exh. VELCO-Mallory-10.
47. Thus, the Project is the least cost viable alternative that meets the needs of both Green Mountain Power and VEC. Mallory pf. at 14; Exh. VELCO-Mallory-10.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

48. The Project will have no adverse impact on the stability and reliability of the VELCO transmission system as VELCO has determined in its 2006 Vermont Transmission System 10 Year Long Range Plan Analysis. In fact, the Project could improve system reliability by reducing the loading on the Tafts Corners and Essex substation 115/34.5 kV transformers. The Project will reduce the loading on these transformers by transferring

the load from the 34.5 kV system to the 115/12.5 kV transformer proposed at Tafts Corners. Additionally, the Project will reduce the loading on the 34.5 kV Digital Substation Transformer. Mallory pf. at 8-9.

Economic Benefit to the State

[30 V.S.A. §248(b)(4)]

49. This Project creates economic and safety benefits to the citizens of Vermont because it is the least-cost alternative to resolve the identified pressing reliability needs. It also provides energy savings through reduced line losses. Table 5, Exh. VELCO-Mallory-10. By improving the reliability of the Chittenden County electrical system, the Project will avoid the costs and safety problems associated with power outages. Mallory pf. at 18.
50. The CCRP notes that Chittenden County has the largest concentration of people and employers in the State. There are critical businesses/institutions that depend on reliable electric service in this area, such as major shopping centers (*e.g.*, Maple Tree Place), major shipping vendors, hotels, traffic lights, and State Police facilities in the immediate vicinity. For example, the area of need includes the Town of Williston's Tafts Corners area, which in 2007 became the first area in Vermont to be designated as a State Growth Center. Exh. VELCO-Mallory-13. This designation enhances Williston's ability to attract dense commercial and/or residential growth. The Project allows for an expected level of economic growth in the service area and will provide reliable electric service to meet the system's pressing capacity needs of the system in this area. Mallory pf. at 18-19.

**Aesthetics, Historic Sites and Water Purity, the Natural Environment
and Public Health and Safety**
[30 V.S.A. § 248(b)(5)]

51. This Project will not have an undue adverse effect on historic sites. VELCO received Division of Historic Preservation concurrence regarding no historic sites at the Substation as part of its original construction. Docket 6839, at 23 (Findings 101 & 102). The Project will not impact below-ground historic sites because all work areas have previously been disturbed. Mallory pf. at 19-20.
52. This Project will not have an undue adverse effect on aesthetics. Petitioners will install Project components within the fenced-in substation. The existing berms and plantings will sufficiently screen this equipment and thus the proposed upgrades will not create an undue adverse effect on aesthetics. Also, no additional substation lighting is proposed with the Project. Mallory pf. at 19.
53. The proposed Project will improve the aesthetics of the area by removing two existing take-off pole structures that are currently adjacent to the south side of the substation and visible from Interstate 89 and installing a new take-off structure and transitional pole within the substation yard. This design creates an improvement for Interstate 89 motorists by lowering the viewed structure heights to a level that is sufficiently screened, moving the structures further away from their view, and creating a more ordered arrangement of the 34.5 kV and 12.47 kV circuits exiting the south side of the substation. Mallory pf. at 20.
54. The most likely visible change will be the addition of a cross arm to the existing 34.5 kV H-frame structure south of the substation. This will be a small incremental change that

cannot be visually mitigated. The addition of a proposed cross arm does not create an undue adverse aesthetic impact because it is in context with the function and appearance of the substation. Abendroth pf. at 6.

Outstanding Resource Waters

[10 V.S.A. § 1424a(d)]

55. There are no outstanding resource waters adjacent to the substation location, nor will any be associated with this Project. In addition, no sediment from the minor earth disturbing activities resulting from this installation will leave the site. Mallory pf. at 20; Exh. VELCO-Mallory-15.

Water and Air Pollution

[10 V.S.A. §6086(a)(1)]

56. The Board concluded in Docket 6839 (Finding # 59) that the Tafts Corners Substation project would not result in undue water or air pollution. The proposed upgrades do not change this conclusion. John Stamatov of VELCO performed an analysis of the environmental impact of the upgrades and concluded there would be none. Mallory pf. at 21; Exh. VELCO-Mallory-15.
57. The installation and operation of the proposed upgrades will not unduly impact air quality. The Project will create minimal, short-term impacts during construction from use of diesel and gasoline powered trucks. Operating the substation will not produce air emissions. Mallory pf. at 21-22; Exh. VELCO-Mallory-15.
58. The Project will not result in undue adverse noise pollution. Resource Systems Group, Inc. (RSG) conducted sound level monitoring at the Tafts Corners Substation to determine the existing sound power levels for the existing transformer. The monitoring

indicated that interstate and local traffic noise and aircraft flight path noise dominate the background sound levels in the area. Hourly average background sound pressure levels were as low as 40 dBA at night and were typically between 50 and 58 dBA during the day. Mallory pf. at 22; Exh. VELCO-Mallory-16.

59. RSG also modeled the existing and proposed conditions. Under the proposed situation of an additional transformer, the substation sound levels perceptible to the nearest residential area are modeled to be between 26 and 31 dBA, which are below the existing background levels noted above. The nearest residential area, a hotel, is located more than 700 feet from the substation. Mallory pf. at 22; Exh. VELCO-Mallory-16.
36. The Project will not result in undue water pollution. The construction work will take place within the existing substation fence, and the Petitioners do not anticipate any discharges from the construction work or operation of the proposed upgrades that could potentially cause any water pollution. Mallory pf. at 22; Exh. VELCO-Mallory-15.

Headwaters

[10 V.S.A. § 6086(a)(1)(A)]

37. The Project is not located in headwaters of the state. Mallory pf. at 22-23.

Waste Disposal

[10 V.S.A. §6086(a)(1)(B)]

38. The Project does not involve disposal of wastes, and therefore will not involve the injection of waste materials or any harmful or toxic substances into ground water or wells. The Petitioners will dispose of construction debris in a state-approved landfill.

The Project will not result in increases in storm water flow and will not require a stormwater permit. Mallory pf. at 23; Exh. VELCO-Mallory-15.

Water Conservation

[10 V.S.A. § 6086(a)(1)(C)]

39. Because the Project will not require any new use of any municipal water supplies during or after construction, no water conservation methods are necessary. Mallory pf. at 23; Exh. VELCO-Mallory-15.

Floodways

[10 V.S.A. § 6086(a)(1)(D)]

40. The Project is not located within a 100 year flood boundary or floodplain. Mallory pf. at 23; Exh. VELCO-Mallory-15.

Streams

[10 V.S.A. § 6086(a)(1)(E)]

41. There are no streams located in the Project's vicinity. Mallory pf. at 24; Exh. VELCO-Mallory-15.

Shorelines

[10 V.S.A. §6086(a)(1)(F)]

42. There are no shorelines near the Project. Mallory pf. at 24; Exh. VELCO-Mallory-15.

Wetlands

[10 V.S.A. § 6086(a)(1)(G)]

43. No wetlands, regulated or otherwise, are located in the substation proper, nor will the proposed Project construction impact any wetlands. Mallory pf. at 24; Exh. VELCO-Mallory-15.

Sufficiency of Water and Burden on Existing Water Supply

[10 V.S.A. §6086(a)(2) and (3)]

44. The Project will not require any changes to the existing municipal water supply, so there will no burden on existing water supplies. Mallory pf. at 24; Exh. VELCO-Mallory-15.

Soil Erosion

[10 V.S.A. § 6086(a)(4)]

45. The Project will not cause soil erosion. Petitioners will conduct all of the minor amount of earth work required for footings, VEC conduit modifications, and installation of the oil containment vessel for the new transformer within the confines of the existing fence line, and thus will not create soil erosion. The Project will not require tree clearing, but will require minimal earth disturbance. Petitioners do not anticipate using dust control, but if necessary, Petitioners will control dust by applying water or calcium chloride on disturbed areas. Mallory pf. at 25; Exh. VELCO-Mallory-15.
46. VEC's distribution upgrade will not cause an undue adverse impact on the natural environment, because it involves limited construction-type work within existing rights of way. Earth disturbance outside the Tafts Corners Substation will be limited to the placement of new poles where needed and traversing the right-of-way to access existing poles for line construction. The underground cable installation within the Tafts Corners Substation fence will utilize some of conduits installed during initial construction. Earth

disturbance inside the substation fence will be limited to installing new conduit between an existing vault and the steel transition structure. Abendroth pf. at 7.

47. Green Mountain Power's distribution upgrade, the placement of new underground circuits located entirely under previously-disturbed land, will not cause any unreasonable soil erosion or reduce the ability of the land on which it will be built to hold water. Cecchini pf. at 5-6.

Traffic

[10 V.S.A. § 6086(a)(5)]

48. Petitioners expect no long-term traffic impacts from the Project and only minor short-term traffic impacts due to deliveries of Project equipment to the Substation site during the construction period (expected to be October 2008 through May 2009). Such deliveries will use existing roads with vehicles that are commonly used on such public roads. Petitioners will coordinate with the property manager of Maple Tree Place, Inc. to safely move any item that requires an oversized sized truck to the job site. Mallory pf. at 25-26
49. There will be a limited impact on traffic on I 89 when VEC installs its distribution line. As Green Mountain Power Corporation did on VEC's behalf when the 34.5 kV line was installed over the highway, VEC will seek a road crossing permit from the Agency of Transportation. This impact will be temporary and for a limited period of time. Abendroth pf. at 7.

Educational Services

[10 V.S.A. § 6086(a)(6)]

50. The Project will not have any impact on educational services. Mallory pf. at 26.

Municipal Services
[10 V.S.A. § 6086(a)(7)]

51. The Project will not have any impact on municipal services. Mallory pf. at 26.

Necessary Wildlife Habitat and Endangered Species
[10 V.S.A. §6086(a)(8)(A)]

52. This Project will not result in any undue adverse effects on Rare and Irreplaceable Natural Areas or Endangered Species Habitat. There are no natural areas or endangered species present in the substation, and the Project will not have an impact on any agricultural soils. Mallory pf. at 26; Exh. VELCO-Mallory-15.

Public Health and Safety
[30 V.S.A. § 248(b)(5)]

53. The Project will not have any adverse effects on the health, safety, or welfare of the public or adjoining landowners. The Project is an expansion of facilities within the existing substation fence, and will be designed in accordance with the National Electric Safety Code requirements. The overall footprint of the substation, as observed at the fence line, will not increase. The Petitioners will use high-quality materials and adhere to prudent utility construction practices throughout the construction phase. The Project will not unnecessarily or unreasonably endanger the public or adjoining landowners. Mallory pf. at 27.

Development Affecting Public Investments
[10 V.S.A. §6086(a)(9)(K)]

54. Because the Project is an upgrade of existing facilities, it will not have a negative impact any public investments in a public resource. Nor should it interfere with the public's use or enjoyment of, or access to such resources. Mallory pf. at 26-27.

**Consistency with Resource Selection/
Integrated Resource Plan**
[30 V.S.A. §248(b)(6)]

55. VELCO does not have an Integrated Resource Plan (IRP), but the Project is consistent with VELCO's 2006 Vermont Transmission System 10 Year Long Range Plan Analysis. (VELCO Plan). In the VELCO Plan, VELCO presumed that the distribution transformer upgrade was part of the base case in determining the impacts of other projects on the Vermont transmission system. Mallory pf. at 27-28.
56. Although VELCO has not been required to have an IRP, it is required to plan its transmission system in accordance with the June 20, 2007, Board approved Docket No. 7081 Memorandum of Understanding (7081 MOU). Paragraph 102 of the 7081 MOU, noted a specific exclusion for the Tafts Corners Project regarding the public engagement and non-transmission alternative (NTA) analysis provisions of the MOU. In VELCO's view, this exemption was made in recognition of the years of analysis and ASC discussions that have already taken place on this Project and alternatives. Notwithstanding the above, VELCO presented and discussed Project information with the Vermont System Planning Committee (VSPC) on March 11, 2008 to keep them abreast of Project developments and identify the Project as one that had been developed prior to establishment of VSPC procedures regarding plan review, NTA analysis, and public engagement. Mallory pf. at 14-15.

57. Green Mountain Power's 2007 IRP was approved in Docket No. 7319. The analysis of the need for this Project was the subject of an area-specific collaborative (Docket No. 6801). *See* Green Mountain Power 2007 Integrated Resource Plan (GMP 2007 IRP), Appendix F at 178. The Project is consistent with the GMP 2007 IRP because a major focus of the GMP 2007 IRP is the provision of reliable electric service. For example, in the "Transmission and Distribution Reliability" section of its 2007 IRP, Green Mountain Power states, "GMP focuses a significant amount of our planning, engineering and construction activities on increasing the reliability of our system." GMP 2007 IRP at 44. A result of the successful completion of the Substation Project will be to continue to provide reliable service for the Tafts Corners area. Cecchini pf. at 4.
58. VEC's most recent IRP was filed in January 2004 and approved by the PSB in Docket 7049. VEC's plans to participate in the Project and possibly retire its present Williston Substation are noted on Page 9-10 of the IRP. Abendroth pf. at 4-5.

Compliance With Twenty Year Electric Plan

[30 V.S.A. §248(b)(7)]

59. The Project complies with the Department of Public Service's 2005 Vermont Electric Plan. The Twenty Year Electric Plan sets forth several basic objectives that must be satisfied in serving the public interest. When utilities design and implement long range resource plans, the Plan requires them to strive to meet Vermont's electric energy needs in a manner that is "efficient, adequate, reliable, secure, sustainable, affordable, safe, and environmentally sound, while encouraging the state's economic vitality and maintaining consistency with other state policies." Utilities must "carefully balance[]" these

objectives. The Project strikes the proper balance among each of these objectives. Mallory pf. at 28.

60. The Petitioners designed the Project to ensure that sufficient energy supply can reach an area of the State with high concentrations of residences and businesses. It should minimize outages due to transmission or distribution system failures by providing additional capacity to Green Mountain Power's transmission and distribution systems. The Project also allows VEC to replace its Williston Substation. The Project does this in an efficient and environmentally sound manner as an integrated least cost solution within an existing site instead of two separate construction projects located in different areas. Mallory pf. at 29.

61. The DPS has determined, in a letter dated _____, 2008, that the proposed Project is consistent with the Vermont Twenty-Year Electric Plan, in accordance with 30 V.S.A. § 202(f), provided the Project is constructed as described by VELCO.

Outstanding Water Resource

[30 V.S.A. § 248(b)(8)]

62. There are no outstanding resource waters adjacent to the substation location, nor will any be associated with this Project. In addition, no sediment from the minor earth disturbing activities resulting from this installation will leave the site. Mallory pf. at 20; Exh. VELCO-Mallory-15.

Waste to Energy

[30 V.S.A. §248(b)(9)]

63. This criterion is not applicable to this Project.

Existing Transmission Facilities

[30 V.S.A. §248(b)(10)]

64. Existing or planned transmission facilities can serve the Project without creating an undue adverse effect on Vermont utilities or customers for the following reasons. First, the existing transmission system can support the Project without requiring additional transmission upgrades. Second, the Petitioners have been developing this Project for the past few years and are prepared to implement it in time to meet the current and expected electrical system needs of the greater Williston area. Third, this is the least-cost solution and will provide economic electric service to Vermont utilities. Fourth, this upgrade may help defer more expensive distribution reinforcements and thereby reduce costs for Vermont customers. Mallory pf. at 29-30.
65. The upgrades will not create an undue adverse impact for VEC and Green Mountain Power's utility workers. Engineers from VELCO, VEC, and Green Mountain Power have discussed the resulting shifts of load from the 34.5 kV system to the 115 kV system and will continue to discuss protection system settings related to the Project as they are designed. The Project will serve distribution circuits that are generally operated on a radial basis and do not have the potential to create unintended current flows that could be a danger. Additionally, the Petitioners will discuss equipment outages and operational control of Project facilities during and post-construction throughout the ongoing regularly scheduled weekly operational meetings that all parties attend. This inter-company communication and understanding of the electrical systems will aid in avoiding accidents that could impact a utility or its workers. Mallory pf. at 29-30.

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; and the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j). Furthermore, the Project is needed to improve reliability in the Williston area and will promote the general good of the State of Vermont. The Project as proposed is also the most reasonable and lowest impact means by which to meet the needs of Green Mountain Power, VEC, and Vermont customers.

IV. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the proposed upgrades and the removal of VEC's Williston Substation in accordance with 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 _____ day of _____, 2008.

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

OFFICE OF THE CLERK

FILED:

ATTEST: