

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 6721

Petition of Vermont Electric Cooperative, Inc.)
for a waiver of the prohibition against site)
preparation for and construction of transmission)
facilities prior to the issuance of a certificate of)
public good (in re: emergency installation of a)
larger transformer at the Pleasant Valley)
Substation, located in Cambridge, Vermont))

Hearing at
Montpelier, Vermont
July 11, 2002

Order entered: 7/17/2002

PRESENT: Wayne L. Foster, Hearing Officer

APPEARANCES: James Volz, Esq.
for the Vermont Department of Public Service

Michael L. Burak, Esq.
Burak, Anderson & Melloni, PC
for Vermont Electric Cooperative, Inc.

I. INTRODUCTION

On July 2, 2002, the Public Service Board ("Board") received a petition pursuant to 30 V.S.A. § 248 (k) from Vermont Electric Cooperative, Inc. ("VEC"), seeking a waiver of Section 248's general prohibition against site preparation and construction of electric transmission facilities without Board preapproval. The subject of the requested waiver is the emergency replacement of a transformer at VEC's Pleasant Valley Substation in Cambridge, Vermont.

On July 8, 2002, the petition was served on the governmental bodies required to receive notice pursuant to 30 V.S.A. Section 248 (a)(4)(C). The Board appointed me as Hearing Officer to conduct the preliminary hearing on the request for a waiver, and to prepare a Proposal for Decision in this Docket. An expedited preliminary hearing was held as scheduled on July 11, 2002, after providing notice to the petitioner and governmental bodies specified in subsection (a)(4)(C) of 30 V.S.A. § 248. At the hearing, VEC presented evidence in support of its request for a waiver. No party appeared in opposition to the petition, the Agency of Natural Resources

filed a letter stating that it had no comments on the proposed transformer replacement, and all parties waived the opportunity to comment on this Proposal for Decision in accordance with 3 V.S.A. § 811.

II. FINDINGS OF FACT

Based on the evidence of record and the testimony presented at the expedited preliminary hearing, I hereby report the following findings to the Board in accordance with 30 V.S.A. § 8.

1. *Vermont Electric Cooperative, Inc. is a duly organized company subject to the jurisdiction of the Board with its principal place of business at 182 School Street, Johnson, Vermont. Petition.*

2. *VEC owns and operates a 34.5/12.47/7.2 kV distribution substation on Lower Pleasant Valley Road in Cambridge, Vermont. The substation serves VEC's members in the towns of Cambridge and Underhill. Abendroth pf. at 2-3. The Pleasant Valley Substation has three single-phase transformers to reduce the voltage level from 34.5 kV to 7.2 kV. One of the three transformers is rated at 333 kVA and serves the "A" phase of the substation; the other two transformers are rated at 833 kVA and serve the "B" and "C" phases of the substation. Abendroth pf. at 3.*

3. *The petition requests the Board to grant a waiver of the prohibition against site preparation and construction without Board approval with respect to the replacement of the existing "A" phase 333 kVA transformer with a larger transformer rated at 833 kVA. Abendroth pf. at 2. VEC is in the process of preparing a petition pursuant to 30 V.S.A. § 248 (j) for the replacement of the 333 kVA transformer with an 833 kVA transformer. However, in light of the circumstances outlined herein, it has become necessary and desirable to replace the transformer more expeditiously than would be allowed in that process. Pet. at 2; Abendroth pf. at 1-4.*

4. *The present 333 kVA substation transformer is 53 years old and has operated beyond its useful operating life. Because this transformer has not been overloaded and has not shown any indication of abnormal performance, VEC has been able to defer replacement of this transformer for several years. VEC had begun developing plans to replace this unit with a newer unit; however, the need to repair or replace this transformer now requires immediate action. Abendroth pf. at 3.*

5. *Routine inspections of the Pleasant Valley Substation have identified a small packing leak on the drain valve located at the bottom of the 333 kVA transformer. The leak cannot be safely repaired without de-energizing and draining the transformer. In order to minimize inconvenience to its members, VEC proposes to replace this transformer with another transformer in its inventory. The leak is being contained with absorbent material and is being monitored until the transformer is replaced. Abendroth pf. at 3.*

6. *In light of the age of the transformer, there is a possibility that attempted on-site repairs could aggravate the problem. VEC is concerned that if a waiver of the requirements of 30 V.S.A. § 248 is not granted allowing an expeditious replacement of the transformer, the leak may become worse and possibly cause environmental harm. Abendroth pf. at 3.*

7. *VEC had not scheduled an outage for routine maintenance at the Pleasant Valley Substation before the present operating problem was observed on the "A" phase transformer. VEC plans to replace this transformer as soon as it is granted a waiver by the requirements of 30 V.S.A. § 248 for an emergency replacement, and can properly notify those members who would be affected by the substation outage that the outage is required for this replacement. Abendroth pf. at 4.*

8. *VEC proposes to replace the leaking transformer with an 833 kVA transformer that was acquired for inventory in 1992 at a cost of \$14,083. (VEC does not have an operable spare 333 kVA transformer that could be installed as a replacement "in-kind" for the existing transformer). An 833 kVA transformer will be purchased by VEC through competitive bidding to replace the unit from inventory that will be installed in the Pleasant Valley substation. VEC estimates that the cost of this new transformer will be approximately \$15,000 based on present market conditions. Abendroth pf. at 5-6.*

9. *Although the existing Pleasant Valley "A" phase transformer is not presently operating at capacity, VEC proposes to install an 833 kVA transformer as its permanent replacement so that VEC can use this transformer rating as a standard size as much as possible. VEC has only one location on its system, other than the Pleasant Valley transformer in question, where a transformer rated at 333 kVA would be considered adequate to serve the long-term future needs of its members. By comparison, VEC presently has 23 transformers rated at 833 kVA on its system, or about 45% of all its substation transformers. This large number of*

installed units makes the 833 kVA transformer rating one that VEC wishes to use as a standard size for future purchases. *Abendroth pf. at 4-5.*

10. *Based on VEC's most recent transformer purchases, there is a difference of about \$2,000 in price between a 333 kVA transformer and an 833 kVA transformer. Given the small price differential between these two transformer ratings, VEC believes it is a reasonable business decision not to purchase a new 333 kVA transformer. Abendroth pf. at 5.*

11. *The scope of work for the proposed project consists of the replacement of one existing transformer rated at 333 kVA with a larger transformer rated at 833 kVA. All construction work is limited to the use of a crane to remove the existing transformer from its foundation and to place the new transformer on the existing foundation. Installation work, crane rental and transportation costs are estimated at \$7,500. VEC personnel will do all work, except for operation of the crane, and an allocation of their salaries has been included in the estimated costs. Abendroth pf. at 5-6.*

12. VEC is preparing a petition under 30 V.S.A. § 248 (j) for a certificate of public good with respect to the project. In the event that the Board were to decide in that proceeding that the installation of a differently sized transformer is appropriate, there is no activity associated with the proposed emergency replacement that would prevent the installation of another size transformer at a later date. VEC would, however, incur the cost of another transformer replacement and its members would be inconvenienced with a second power outage. *Abendroth pf. at 6.*

13. *VEC gave notice to the governmental bodies listed in 30 V.S.A. § 248(a)(4)(C) by regular mail and facsimile and/or e-mail on May 31, 2002. Petition at 4.*

III. DISCUSSION

The evidence presented in the petition and at the preliminary hearing demonstrates that the criteria of Section 248(k) have been met for issuance of the requested waiver for the installation of the larger replacement transformer. Specifically, the evidence shows that the deteriorated condition of the existing 333 kVA transformer is an emergency situation, that the waiver is necessary to provide adequate and efficient service, and that the waiver will promote the general good of the state. The Vermont Department of Public Service supports issuance of

the waiver.

Consequently, I recommend that the Board grant the requested waiver of the prohibition against site preparation and construction of electric transmission facilities for the replacement of the transformer. I further recommend that the Board include in the waiver the conditions set forth in the attached proposed order, which I conclude are necessary to protect the interests of VEC and its ratepayers.

DATED at Montpelier, Vermont, this 17th day of July, 2002.

s/Wayne L. Foster

Wayne L. Foster
Hearing Officer

IV. BOARD DISCUSSION

The subject emergency situation is the second one that has occurred on the VEC system since late May, 2002 (*see* Docket No. 6704). Both emergencies involved an aging transformer showing rapidly increasing indications of possible imminent failure. The Board is concerned that an unacceptable trend may be emerging on the VEC system and strongly urges VEC to take whatever necessary maintenance and monitoring steps are required to prevent further emergency situations from arising. VEC should not expect to rely on use of the § 248(k) emergency waiver provision as an alternative to sound routine maintenance schedules and procedures and maintenance of adequate reserve inventory.

V. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that, pursuant to 30 V.S.A. § 248 (k), the prohibition of 30 V.S.A. § 248 (a)(2) against site preparation for, and the installation of, an 833 kVA replacement transformer at the Pleasant Valley Substation by Vermont Electric Cooperative, Inc. in Cambridge, Vermont, prior to the issuance of a certificate of public good, is waived, subject to the following conditions:

1. The transformer shall be installed in accordance with the plans and testimony submitted by the petitioner in this proceeding.
2. VEC shall file, within one week of the date of this Order, a petition for a certificate of public good authorizing the permanent replacement of the transformer at its substation in Cambridge, Vermont.

DATED at Montpelier, Vermont, this 17th day of July, 2002.

<u>s/Michael H. Dworkin</u>)	
)	PUBLIC SERVICE
)	
<u>s/David C. Coen</u>)	BOARD
)	
)	OF VERMONT
<u>s/John D. Burke</u>)	

OFFICE OF THE CLERK

FILED: July 17, 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 in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)