

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 7198

Petition of Audet's Cow Power, LLC for a certificate of )  
public good, pursuant to 30 V.S.A. Section 248(j) )  
authorizing the installation of a 146.3 kVA )  
methane-fueled engine-generator set to supplement the )  
existing 344 kVA methane-fueled engine-generator set )  
at the Blue Spruce Farm in Bridport, Vermont )

Order entered: 9/8/2006

**I. INTRODUCTION**

On June 14, 2006, the Vermont Public Service Board ("Board") received a petition from Audet's Cow Power, LLC ("LLC" or "Petitioner") requesting a certificate of public good ("CPG") pursuant to 30 V.S.A. § 248(j) authorizing "the installation of a 146.3 kVA, methane-fueled engine-generator set in parallel with the existing 344 kVA methane fueled engine-generator set at the [Blue Spruce Farm] in Bridport, Vermont."<sup>1</sup> Notice of this petition was issued on July 14, 2006, to all parties specified in 30 V.S.A. § 248(a)(4)(C) and all other interested parties. The notice stated that persons 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 their comments with the Board on or before August 17, 2006. A similar notice of the filing was published in the *Addison Independent* on July 20 and 27, 2006. No comments on LLC's petition were received by the Board.

**II. FINDINGS OF FACT**

**Description of Petitioner and the Proposed Project**

1. LLC is currently operating a methane-fueled electrical generating facility at the Blue Spruce Farm in Bridport, Vermont, pursuant to a CPG originally issued to Blue Spruce Farm,

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1. One copy of the petition was filed on May 17, 2006. The Clerk of the Board contacted the LLC by telephone to request the required number of additional copies of the petition. LLC filed the required number of copies of the petition on June 14, 2006.

Inc., on September 9, 2004, in Docket 6977. The CPG was subsequently transferred to LLC by Board Order issued on April 8, 2005. Pet. at 1; Audet pf. at 1.<sup>2</sup>

2. The CPG issued on September 9, 2004, permits LLC to operate a 500 kVA methane-fueled engine generator set with an electrical output of up to 275 kW. Pet. at 1.<sup>3</sup>

3. LLC did not install a 500 kVA engine generator, but, rather, installed a 344 kVA engine generator.<sup>4</sup> Audet pf. at 2; exh. B at 3, 4.

4. The peak output of the existing 344 kVA 480 V synchronous generator ("Unit 1") is 207 kW. LLC had originally planned to produce 275 kW using Unit 1 with an attached turbo, but subsequently learned that the turbo would adversely affect Unit 1. Audet pf. at 2; exh. B at 4.

5. The subject of this proceeding is LLC's proposal to install a second engine-generator set in place of the turbo. The proposed engine generator set ("Unit 2") is a 146.3 kVA Model CMTG-100 spark ignition generator set with a Caterpillar G3306NA engine modified for bio-gas, and, similar to Unit 1, is also a 480 V synchronous generator. The actual peak output of Unit 2 is expected to be 80 kW due to the relatively poor quality of the bio-gas fuel as compared to natural gas. Audet pf. at 2; exh. B at 4 and Attachments A and D.

6. Unit 2 would operate in parallel with Unit 1. The combined output would not exceed 490.3 kVA or 287 kW. Audet pf. at 2; exh. B at 4, 7.

7. Similar to the existing Unit 1, the proposed Unit 2 would be interconnected with the Central Vermont Public Service Corporation ("CVPS") 12.47 kV Weybridge 81 distribution circuit at Line 3 Pole 223-1 via the existing customer-owned step-up transformer. Exh. B at 3, 4 and Attachments B, C, and D.

8. Unit 2 would be located within the existing building that houses Unit 1, and the addition of Unit 2 would not require any external modifications to the facilities approved in Docket No. 6977. Audet pf. at 2.

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2. The prefiled testimony of Ernest Audet was filed as Exhibit A. It is the Board's practice not to label prefiled testimony as an exhibit. Consequently, herein we make direct reference to Mr. Audet's testimony, and do not make any reference to Exhibit A.

3. *See also* Docket No. 6977, Order of September 9, 2004, at 5 (Finding 4).

4. On November 12, 2004, Blue Spruce Farm informed the Board in Docket 6977 that it had downsized the generator from 500 kVA to 344 kVA and provided a supplemental system impact study.

9. The addition of Unit 2 would not require any changes to the approved manure digestion facilities, or Blue Spruce Farm's manure management system, farming practices, or existing infrastructure as approved pursuant to the CPG in Docket No. 6977. Audet pf. at 2. Findings 5 through 9 are hereinafter collectively referred to as the "Project."

### **Review of the Project Under Section 248's Criteria**

#### **Discussion**

LLC's prefiled testimony and exhibits describe the proposed Unit 2, and address 30 V.S.A. § 248(b)(3) (system stability and reliability) by providing a completed system impact study (Exhibit B) performed by CVPS and dated April 28, 2006 (the "System Impact Study"). We also find that the System Impact Study addresses 30 V.S.A. § 248(b)(10) (existing and planned transmission facilities), and, to a limited extent, 30 V.S.A. § 248(b)(4) (economic benefit to the state and its residents). However, no other Section 248 criteria are explicitly addressed in LLC's filings. It is generally the Board's practice to require a petitioner to address all of the Section 248 criteria before a petition is determined to be complete, and before we would issue notice pursuant to Section 248(j). However, in this specific case, because all work would be conducted within an existing building, and specifically because this Board has previously addressed all of the Section 248 criteria in Docket No. 6977 for the construction of this building (and for the interconnection of the existing generator), the Board issued on June 28, 2006, a memorandum stating that LLC need not file additional information regarding the remaining Section 248 criteria before the Board issues notice pursuant to Section 248(j). Our June 28 memorandum also noted that the Board's decision to issue notice of this project does not preclude anyone from filing comments with respect to the sufficiency of information contained in the petition. The Board did not receive any comments on LLC's petition. Consequently, we incorporate into today's Order, in the sections below, certain Findings of Fact contained in our Order of September 9, 2004, in Docket 6977.

#### **Orderly Development of the Region**

[30 V.S.A. § 248(b)(1)]

10. 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. This finding is supported by Findings 16 through 18 of the Order of September 9, 2004, in Docket 6977.

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

[30 V.S.A. § 248 (b)(2)]

11. The Project is required to meet the 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 Finding 20 of the Order of September 9, 2004, in Docket 6977.

**System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

12. The Project will not adversely affect system stability and reliability, provided the recommendations of the System Impact Study are followed. Exh. B.

13. The System Impact Study finds that the interconnection of the Project with the CVPS electric system can have some impacts. The study describes the approach recommended to address the impacts, and indicates that operating agreements between CVPS and LLC covering generator tripping, lockout, and re-start should be amended to reflect the recommendations of the System Impact Study. Exh. B.

14. Specifically, the System Impact Study recommends that:

- a. controls should be placed to prevent Unit 2 from starting and stopping more than once per hour;
- b. Unit 1 and Unit 2 should not be started simultaneously;
- c. the combined output of Unit 1 and Unit 2 should be limited to 287 kW at a 0.98 power factor or greater; and
- d. all required items listed in Section 5 (Protection and Interconnection Requirements) of the System Impact Study should be strictly adhered to; and
- e. if system performance so indicates, an expanded transfer trip may be necessary to avoid potential islanding.

Exh. B at 8-16.

15. The System Impact Study also found that stability, reverse power flow, and thermal loading do not appear to be issues at this time, and that the existing step-up transformer is sufficient for the interconnection of Unit 2. Exh. B at 3, 8-9, 14.

### **Discussion**

Although the System Impact Study did identify some potential impacts of the interconnection of the Project, the System Impact Study recommended measures to address these impacts. Our positive finding with respect to this criterion is dependent upon LLC's implementation of, and strict adherence to, all recommendations of the System Impact Study. We will include such a condition in the CPG.

### **Economic Benefit to the State and Its Residents**

[30 V.S.A. § 248(b)(4)]

16. The Project will result in an economic benefit to the state and its residents. This finding is supported by Finding 28 of the Order of September 9, 2004, in Docket 6977, and the following finding.

17. The evidence presented in this proceeding specified that implementation of System Impact Study recommendations would be at LLC's expense. Exh. B at 8, 9, and 16.

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

[30 V.S.A. § 248(b)(5)]

18. The Project 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 30 through 53 of the Order of September 9, 2004, in Docket 6977.

### **Consistency With Company's Least-Cost Integrated Plan**

[30 V.S.A. § 248(b)(6)]

19. The Project is consistent with the principles for resource selection. This finding is supported by Finding 54 of the Order of September 9, 2004, in Docket 6977.

### **Compliance With Electric Energy Plan**

[30 V.S.A. § 248(b)(7)]

20. The Project is consistent with the Vermont Twenty-Year Electric Plan, in accordance

with 30 V.S.A. § 202(f). This finding is supported by Finding 55 of the Order of September 9, 2004, in Docket 6977.

### **Outstanding Water Resources**

[30 V.S.A. § 248(b)(8)]

21. The Project does not involve a facility affecting or located on any segment of the waters of the state that has been designated as Outstanding Resource Waters. This finding is supported by Finding 56 of the Order of September 9, 2004, in Docket 6977.

### **Waste to Energy Facilities**

[30 V.S.A. § 248(b)(9)]

22. The Project is not a municipal solid waste to energy facility, and, therefore, this criterion is inapplicable.

### **Existing and Planned Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

23. The Project can be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers. This Finding is supported by Findings 24 through 25, below.

24. The Project would be interconnected with the CVPS 12.47 kV Weybridge 81 distribution circuit at Line 3 Pole 223-1. The Weybridge 81 distribution circuit originates from the CVPS Weybridge substation, which is supplied at 46 kV by a CVPS subtransmission line which is in turn supplied by the Vermont Electric Power Company ("VELCO") 115 kV Middlebury substation. Exh. B at 3, 4 and Attachments B, C, and D.

25. The System Impact Study found that, with adherence to certain recommendations, the Project can be served by the Weybridge 81 distribution circuit without undue adverse effect on Vermont utilities or customers. In addition, the System Impact Study did not identify any undue adverse impacts to the CVPS 46 kV subtransmission system or to the VELCO 115 kV transmission system. Exh. B.

### **III. CONCLUSION**

Based upon the above findings, we conclude that the Project will promote the general good of the State of Vermont.

### **IV. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the State of Vermont Public Service Board that the installation by Audet's Cow Power, LLC of a 146.3 kVA, methane-fueled engine-generator set in parallel with the existing 344 kVA methane-fueled engine-generator set at the Blue Spruce Farm in Bridport, Vermont, in accordance with the evidence and plans presented in this proceeding, will promote the general good of the State of Vermont in accordance with 30 V.S.A. Section 248(j), and a certificate of public good shall be issued in the matter, subject to the following conditions:

1. Construction and operation of the Project shall be in accordance with the plans and specifications submitted in this proceeding. Any material deviation from these plans or specifications must be approved by the Board.
2. All recommendations of the System Impact Study dated April 28, 2006, must be followed.
3. The certificate of public good shall not be transferred without prior approval of the Board.

Dated at Montpelier, Vermont, this 8th day September, 2006.

s/James Volz	)	
	)	PUBLIC SERVICE
	)	
s/David C. Coen	)	BOARD
	)	
	)	OF VERMONT
s/John D. Burke	)	

OFFICE OF THE CLERK

FILED: September 8, 2006

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.*