

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 6748

Petition of EMDC, LLC for a Certificate of )  
Public Good Pursuant to 30 V.S.A. § 248(j) )  
for Installation of Wind Measurement )  
Towers and Related Equipment on East )  
Mountain, in East Haven, Vermont )

Order entered: 10/4/2002

**I. INTRODUCTION**

This case concerns a petition filed by EMDC, LLC ("EMDC"), requesting a certificate of public good ("CPG") under 30 V.S.A. Section 248(j) for the installation of a 197-foot tower, with related equipment, to be installed on the summit of East Mountain in East Haven, Vermont, and a 40-foot tower already placed on top of an existing building at the summit, and associated equipment, including one or two small wind turbines. EMDC is exploring the feasibility of construction of a windfarm at the site, and the towers and their associated equipment will generate data about wind speed and direction, and other factors, that are essential to further evaluation and design of the windfarm.

EMDC served its original petition, prefiled testimony, proposed findings and a proposed order (along with a proposed CPG) on the Public Service Board ("Board"), the Vermont Department of Public Service ("DPS"), and the statutory parties on July 5, 2002. On July 24, 2002, EMDC served an amended petition that also included a request for approval of the previously installed 40-foot tower, with related equipment, located on the top of the existing building. The amended petition also included supplemental prefiled testimony, amended proposed findings and order (along with a proposed CPG). All were served on the Board, the Department and the statutory parties. Finally, on September 16, 2002, EMDC filed Second

Supplemental Prefiled Testimony of Lawrence Mott with the Board and all parties in response to comments by the parties.

Notice of the filing in this docket was sent on August 14, 2002, to all parties specified in 30 V.S.A. Section 248(j) and all other interested persons. In addition, notice was published in the *Caledonian Record* on August 16 and 23, 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 September 13, 2002.

On September 13, 2002, the DPS filed comments and stated that it does not object to EMDC's proposal, as amended, but that it does have concerns that EMDC had already commenced clearing for the guy wires for the 197-foot tower, and that the cleared width for each guy wire was approximately 20 to 30 feet wide, rather than the eight feet described in the amended petition. The DPS alleges that this construction violates the prohibition against the commencement of site work or construction prior to the issuance of a CPG as specified in § 248. The DPS stated that, rather than request a hearing which might delay the project beyond the construction season, the testimony in support of the petition should be amended to describe accurately the clearing associated with the guy wires. The DPS also recommended possible procedures that the Board might employ to resolve the issue of alleged non-compliance.

The Agency of Natural Resources ("ANR") also filed comments in which it stated that, although the petition does not appear to raise any concerns for ANR under 30 V.S.A. § 248(b)(5), it too was concerned about guy wire clearing and supports the approach recommended by the DPS to address the issue.

On September 27, 2002, the ANR filed a "Settlement Agreement" between EMDC and the DPS in which EMDC agrees to make a payment to the Public Service Board in the amount of \$1000, pursuant to 30 V.S.A. § 30, to resolve the alleged non-compliance with the prohibition against site work or construction prior to the issuance of the CPG. By making this payment or by signing this agreement, EMDC does not admit that it has committed any violation, and the DPS has agreed not to take any further enforcement action specifically related only to this incident.

The DPS filed a determination under 30 V.S.A. § 202 (f) on October 2, 2002.

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

The Board has reviewed the petition, the accompanying documents, and the comments of the parties 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. EMDC is a Vermont company, formed for the purpose of exploring the development of a windfarm in East Haven, Vermont. It has acquired property in East Haven, including approximately 17 acres on the summit of East Mountain, with access along an existing, paved road. Rubin pf. at 1-2.

2. EMDC's property in East Haven includes a former government radar base, operated from the mid-1950's to the early 1960's. The base included large buildings and other installations at the summit of East Mountain. Many of those structures still exist, but are in decrepit condition. The summit is substantially covered with buildings, concrete and asphalt paving. *Id.*

3. In December 2001, EMDC installed wind measurement equipment on a 40-foot tower attached to the top of one of the existing buildings at the summit, powered by a 1-kW stand-alone, photovoltaic power system. EMDC's petition, as amended, seeks approval for that installation (with the addition of one or two small wind turbines – either two 400-watt or one 1000-watt) and for an additional meteorological tower not yet installed, described further below (collectively, "the Project"). Rubin pf. at 3-4; Rubin supp. pf. at 1-2.

4. Preliminary data from the existing instruments show that wind conditions are favorable for development of a windfarm. In order to make a more refined analysis of the feasibility of a windfarm at that location, and develop further plans with greater specificity, more comprehensive data relating to wind speed and direction, and other meteorological conditions, need to be collected. Rubin pf. at 3-4, 5-6.

5. These data need to be collected at heights higher than the instrumentation currently in place, and at several elevations above ground level. To that end, EMDC proposes to erect a

197-foot tower, and place instrumentation at several elevations on that tower. That instrumentation will generate data that will be vital to further evaluation of a windfarm at the site. Id.

6. In addition, local emergency and police services have requested that EMDC place small repeater equipment on the tower, to enhance services in the region and at the site. Vandalism and accidents at the former radar base have been a significant problem in the past, so these enhanced services will be necessary for the Project. Id. at 4.

7. Local permits are not required, but EMDC has discussed its plans with East Haven officials and various other local groups, and has received positive and supportive responses. Id. at 5.

#### **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. The Project is located entirely on privately owned, already-developed property, it involves no transmission or distribution lines, and it will not provide electricity for consumption off-site. EMDC has notified municipal and regional authorities of the Project. Rubin pf. at 4.

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

[30 V.S.A. § 248(b)(2)]

9. This criterion is inapplicable to this petition, because the Project will not serve any users other than itself. It could lead in the future to a petition for a windfarm that would be available to provide renewably produced electricity to users in Vermont and elsewhere. Id.

#### **System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

10. The Project will not be connected to the electric system in any way, and therefore cannot adversely affect its stability and reliability. Id.; Mott pf. at 2.

**Economic Benefit to the State**

[30 V.S.A. § 248(b)(4)]

11. The Project will be an investment in an otherwise derelict property in East Haven, Vermont. As such, it will provide increased taxes to East Haven and to the State under Act 60. Moreover, it is a necessary step toward development of a windfarm, which, if permitted and developed, could provide substantial additional state and local tax revenues and also make available to users renewably produced electricity at market rates. Rubin pf. at 2-3.

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

[30 V.S.A. § 248(b)(5)]

12. 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 13 through 31 below, which are based on the criteria specified in 10 V.S.A. Sections 1424(d) and 6086(a)(1) through (8), (8)(A) and (9)(K).

**Outstanding Resource Waters**

[10 V.S.A. § 1424(a)(d)]

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

**Water and Air Pollution**

[10 V.S.A. § 6086(a)(1)]

14. The Project will not result in undue water and air pollution. This finding is supported by the specific findings under subcriteria (A) through (G) and Air Pollution, below.

**Headwaters**

[10V.S.A. § 6086(a)(1)(A)]

15. Although the Project is located in a headwaters area because it is above 1500 feet, its impact on water quality will be minimal to non-existent because the only impacts on waters will be from the extremely limited soil disturbance needed to anchor the tower's guy wires. Very small quantities of soil will be disturbed for this purpose, and then packed in place on relatively flat surfaces to minimize the potential for any erosion to occur. Mott supp. pf. at 3-4; Mott pf. at 4.

**Waste Disposal**

[10 V.S.A. § 6086(A)(1)(B)]

16. The Project will not generate or dispose of any wastes during its operation. Any debris generated during construction will be hauled off-site and disposed of in accordance with law. Mott pf. at 4; Mott supp. pf. at 4.

**Water Conservation**

[10 V.S.A. § 6086(a)(1)(c)]

17. This criterion is inapplicable because the Project will not consume any water. Mott supp. pf. at 4.

**Floodways, Streams, and Shorelines**

[10 V.S.A. § 6086(a)(1)(D)(E) &(F)]

18. These criteria are not applicable because the Project is not located in a floodway, near streams, or on a shoreline. Id.

**Wetlands**

[10 V.S.A. § 6086(a)(1)(G)]

19. The Project will not violate the Vermont Wetland Rules because it does not affect a significant wetland, or any wetland at all. Id. at 5.

**Air Pollution**

[10 V.S.A. § 6086(a)(1)]

20. The project will not result in undue air pollution. There will be no emissions from the tower or its equipment. The small turbines (45-inch or 98-inch diameter rotor) placed at the top of the existing 64-foot building to power the system will make so little noise when turning that, to someone on the ground, it will be indistinguishable from the background sounds of wind. Id.

**Sufficiency of Water and Burden on Existing Water Supply**

[10 V.S.A. § 6086(a)(2)(3)]

21. These criteria are inapplicable because the Project needs no water to function, and will not need water in the future. Id. at 4.

**Soil Erosion**

[10 V.S.A. § 6086(a)(4)]

22. The Project will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result. Soil disturbance in connection with the Project will be extremely limited. Only a very small quantity of soil will need to be disturbed, to anchor the guy wires and for the base of the 197-foot tower. This disturbance will occur on relatively flat surfaces, and any removed soils will be carefully packed in place to eliminate or minimize the potential for erosion. No other soils will be disturbed. Access to the site is by an existing, paved road. *Id.* at 3-4; Mott pf. at 4; Rubin pf. at 2.

**Transportation Systems**

[10 V.S.A. § 6086(a)(5)]

23. The Project will not cause unreasonable congestion or unsafe conditions with respect to use of the highways, waterways, railways, airports and airways, and other means of transportation existing or proposed. Construction of the Project will only require several trucks over a short period of time, and after construction it will require only periodic maintenance and inspection visits. Access will be from Vermont Route 114 and then along Radar Road, which is private. At less than 200 feet, the tower should not need to be lighted for safety under Federal Aviation Administration rules. However, warning lights will be installed in the event that they are required. Rubin pf. at 2; Mott supp. pf. at 5-6; Mott pf. at 4.

**Educational Services**

[10 V.S.A. § 6086(a)(6)]

24. The Project will not cause any burden on the ability of the Town of East Haven to provide educational services, because it will not create any full or part time positions that might be filled with employees who could send their children to the local schools. Rubin supp. pf. at 2.

**Municipal Services**

[10 V.S.A. § 6086(a)(7)]

25. The Project will not place an unreasonable burden on the ability of local governments to provide municipal or governmental services. The Project will require few if any municipal or governmental services. Vandalism and accidents have been a problem at the site in the past, and

there is no reason to believe the Project will increase the attractiveness of the site to vandals. The 197-foot tower will be equipped with an anti-climb guard to enhance the safety of the installation. The inclusion on the tower of repeater equipment for fire and emergency services will improve the ability of local agencies to provide such services, not only at the site, but in the region. This will more than outweigh whatever demand the Project may place on local municipal or governmental services. Mott pf. at 4; Rubin pf. at 4.

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

[10 V.S.A. § 6086(a)(8)]

26. The Project will not have an undue adverse effect on the scenic or natural beauty of the area. The visual impacts will be minimal, for several reasons. First, the 197-foot tower will be only 18 inches wide, per side, and is of lattice – not solid – construction. Second, East Mountain is visible from only a few locations that attract people in substantial numbers. It is not visible from Route 114 or any other major roadway. It can be seen from a portion of the East shore of Maidstone Lake, which is approximately 6.5 miles away. It can also be seen from a portion of the top of Burke Mountain, which is about 8.5 miles away. These locations attract modest numbers of people, generally on a seasonal basis. Third, from any point of view where the summit can be seen, the existing buildings on the ridge already are quite visible, and unattractive. Thus, the aesthetic context is not one of a pristine ridge. It is slender enough that, from more than one or two miles away, it will be very difficult to distinguish against the sky. The existing 40-foot tower on top of the 64-foot building is even more slender, and lower, and is barely visible even from fairly close vantage points. Rubin pf. at 4-5; Mott supp. pf. at 1-2; Rubin supp. pf. at 3.

27. Originally, the petitioner estimated that clearing necessary for the installation of the guy wires for the 197-foot tower would be approximately eight-foot wide corridors from the base of the tower to each anchor location. During the process of investigating the feasibility of constructing the tower on the site, including finding the exact guy wire anchor locations, EMDC cut corridors up to twenty feet wide to accommodate the equipment necessary to test the solidity

of the rock at the anchor sites. This clearing resulted in the total cleared area for the 197-foot tower increasing from the originally projected .1 acres to .3 acres. Mott second supp. pf. at 1-3.

28. The Project will not have an undue adverse effect on historic sites. Although the remains of a decommissioned radar base (which may be entitled to some measure of protection as an historic site) are located near the proposed site of the 197-foot tower, the construction of the tower will not require the destruction or removal of what remains of the radar base. Mott pf. at 4.

29. The Project will not have an undue adverse effect on rare or irreplaceable natural areas. The location of the 197-foot tower is on a previously developed ridge, and its construction will involve the clearing of less than 0.3 acres. *Id.*

### **Discussion**

Based on the above findings, the Board finds that the 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*, #3W04 1 1-EB and 3W0439-EB, dated January 13, 1986.

As required by this decision, it is first appropriate to determine if the impact of the project will be adverse. The 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 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 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.<sup>1</sup>

Given the facts of this case, it would be difficult to find that the Project would have an adverse effect on the aesthetics of the area because it will be located on the site of the derelict radar facility; the 197-foot tower is very thin and will only be able to be seen from locations many miles away, thereby making it nearly unnoticeable; and the amount of necessary clearing will still be insignificant.

### **Necessary Wildlife Habitat and Endangered Species**

[10 V.S.A. § 6086(a)(8)(A)]

30. Petitioners are unaware of any necessary wildlife habitat or endangered species located in any of the areas where there will be any disturbance as a result of the construction of the Project, and believe there to be none. To the extent that the high elevation forest that covers the East Mountain ridge (except under the footprint of the former radar base) is considered necessary wildlife habitat, however, the Project will not destroy or significantly imperil that habitat because the maximum amount of clearing will be less than 0.3 acres. Mott pf. at 4; Mott second supp. pf at 3.

### **Development Affecting Public Investments**

[10 V.S.A. § 6086(a)(9)(K)]

31. The Project will not unnecessarily or unreasonably endanger public investment in neighboring lands, or materially jeopardize or interfere with the public's use and enjoyment of the lands. The lands surrounding EMDC's property at the summit of East Mountain are owned by Essex Timber Company ("ETC"), a private entity engaged in sustainable forestry management of the property. The ETC lands are subject to a public access easement held by the State of Vermont, which guarantees public access to the ETC lands. Under that easement and the Long Term Access Plan that has been developed to guide management of public access, the lands surrounding EMDC's holdings are open to the public for dispersed pedestrian recreation, including hunting, trapping, fishing, walking, skiing, snowshoeing, boating, swimming and

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1. Consider, for example, reduction in need for power plant or transmission investments, or other social costs.

wildlife observation. Radar Road, to the summit of East Mountain, is not open to the public or subject to the public access easement. Rubin supp. pf. at 2-3.

32. The only impact of the Project on the public investment described in the preceding paragraph is aesthetic, and that impact will neither unnecessarily nor unreasonably endanger public investment. The tower must be as high as it is proposed to be in order to carry out the Project's purpose. Rubin pf. at 3-4; Mott pf. at 5.

**Compliance with Electric Energy Plan**

[30 V.S.A. § 248(b)(7)]

33. This criterion is inapplicable because EMDC is not required to have a least-cost integrated plan under 30 V.S.A. § 218c.

**Outstanding Water Resources**

[30 V.S.A. § 248(b)(8)]

34. There are no waters in the vicinity of the Project that have been designated as outstanding resource waters. Mott supp. pf. at 4.

**Existing or Planned Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

35. This criterion is inapplicable because the Project will not be served by any transmission facilities, existing or planned.

**Executive Order # 52 – Agricultural Land**

36. There are no agricultural lands near the Project. Mott. supp. pf. at 6.

37. The proposed towers are of limited size and scope within the meaning of 30 V.S.A. § 248(j). Findings 1-36, 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 by 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

**IV. PROPOSED SETTLEMENT FOR ALLEGED  
NON-COMPLIANCE**

The DPS suggested that because construction (in the form of site clearing) began prior to the issuance of a CPG, the Board should address the issue of alleged non-compliance with the prohibitions against beginning site preparation or construction as specified in 30 V.S.A. § 248(a)(2). While the DPS did not recommend that the Board delay the issuance of a CPG to address this issue because of construction season limitations, it suggested that the Board convene a separate proceeding to investigate this matter. The ANR supported the DPS's position regarding this issue.

Subsequent to the filing of the DPS comments and in response to them, the petitioner filed Second Supplemental Testimony of Lawrence Mott that explains, in detail, the reasons why the clearing that occurred prior to this issuance of the CPG was necessary, and the reasons why the clearing had to be wider than originally anticipated.

Most recently, the DPS filed the "Settlement Agreement" as described in more detail above. The DPS believes that this agreement, which includes a monetary payment to the Board, adequately resolves this issue of alleged non-compliance. The ANR did not comment specifically on the Settlement Agreement.

We agree that this Settlement Agreement represents a fair resolution of this incident because it has made EMDC recognize the prohibitions in § 248 against site work or construction prior to the issuance of a CPG, but it also acknowledges that the site clearing that occurred did not result in any significant environmental impacts under the criteria of § 248. Consequently, we approve the Settlement Agreement as presented.

**IV. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the installation of a 197-foot tower, with related equipment, to be installed on the summit of East Mountain in East Haven, Vermont, and a 40-foot tower already placed on top of an existing building at the summit, and associated equipment for both towers, including one or two small wind turbines, 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, and a certificate of public good shall be issued in the matter.

Dated at Montpelier, Vermont this 4<sup>th</sup> day of October, 2002.

s/Michael H. Dworkin )  
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s/David C. Coen )  
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s/John D. Burke )

PUBLIC SERVICE  
  
BOARD  
  
OF VERMONT

OFFICE OF THE CLERK

Filed: October 4, 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)*

*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.*