

## MEMORANDUM

TO: The Board of Environmental Protection

FROM: Mark Margerum, Project Manager, Bureau of Land & Water Quality, Augusta

RE: Martha A. Powers Trust, Brian Raynes, and Daniel Koerschner Appeal of Site Location of Development Act and Natural Resources Protection Act Permits issued to Evergreen Wind Power II, LLC for the Oakfield Wind Project, in Oakfield #L-24572-24-A-N/L-24572-TF-B-N,

DATE: June 3, 2010

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**Statutory and Regulatory References:** The applicable statutory and regulatory framework for this appeal is the Site Location of Development Law (Site Law), 38 M.R.S.A. § 481-490; Site Location of Development Rules, Chapter 373 (financial capacity), Chapter 375 §§ (10) and (14) (noise and scenic character); the Natural Resources Protection Act, §§ 480-D(1) and (3), and the Maine Wind Energy Act, Title 35-A §§ 3451 - 3455. The Site Location of Development Rules interpret and elaborate on the Site Law. In the sections pertinent to this appeal, the Site Rules guide the Department in its determination of whether a project will be in compliance with noise regulations and whether the project would unreasonably adversely affect scenic character. The Maine Wind Energy Act sets forth additional licensing criteria specific to wind projects, including pertaining to decommissioning, and it alters the analysis of scenic impacts for wind projects. Procedures for appeals before the Board are outlined in the Department's Rules Concerning the Processing of Applications, Chapter 2, Section (24)(B).

**Location:** The project site is located on the east side of Thompson Settlement Road and south of South Oakfield Road in the Town of Oakfield.

**Procedural History and Project Description:** On April 7, 2009, the applicant submitted a Site Law application and an NRPA application for the construction of a 51-megawatt (MW) wind energy generation facility known as the "Oakfield Wind Project", which is an expedited wind energy development as defined by the Maine Wind Energy Act. The proposed project consists of 34 General Electric 1.5 wind turbines (1.5 MW each) with associated turbine pads. The turbines will be constructed in a northern and a southern array along Sam Drew Mountain and other ridges in the Oakfield Hills. The proposed project also includes 15.3 miles of access roads and crane path, an electrical collector line totaling approximately 12 miles, an electrical collector substation occupying 0.56 acres, four permanent 80 meter meteorological towers, and an 8,380 square foot operations and maintenance building. A location map and more detailed project description are attached.

The Department received no requests to hold a public hearing on the proposed project. In consideration of the level of public interest in wind power projects, the Department held a public

meeting on July 16, 2009, in the Town of Oakfield to provide all interested parties with an opportunity to provide information and ask questions of the Department regarding the project.

The Department approved the permit applications on January 21, 2010. Timely appeals to the Board were filed on February 22, 2010 by the appellants listed above: Martha A. Powers Trust (Powers Trust), Brian Raynes, and Daniel Koerschner.

**Environmental Issues:**

1. FINANCIAL CAPACITY: Appellants Powers Trust and Brian Raynes contend that the applicant has not demonstrated adequate financial capacity to construct the proposed wind energy development.

Chapter 373(1) sets forth several forms of financial capacity demonstration which may be acceptable, but does not limit an applicant to the listed forms. The applicant submitted a description of its financial capacity and a letter of support from HSH Nordbank (HSH), dated March 13, 2009, which indicated that it had already provided financial support for the project and was likely to provide further financing for the project. The Department found that the applicant demonstrated adequate financial capacity to comply with Department standards provided that prior to construction of the project, the applicant submitted final evidence of financial capacity.

The appellants contend that the applicant's parent company, First Wind, is in precarious financial condition. The Department has reviewed the appellants' arguments and recommends that the Board find that the information submitted by the applicant is adequate subject to the permit condition requiring final evidence of financial capacity prior to the commencement of construction.

2. NOISE: Appellants Powers Trust and Brian Raynes contend that the Department erred in its findings that the noise generated from the proposed project will not have an unreasonable effect on the surrounding environment as set forth in the Site Location of Development Rules, Chapter 375 §10, based on the following contentions:

- A. The sound model used to develop the sound level study for the proposed project was not designed for wind turbines;
- B. The sound level study submitted by the applicant failed to use line source calculations;
- C. The applicant's sound level study failed to adequately consider short duration repetitive sounds (SDRS) and should have applied a 5 dBA penalty based on excessive SDRS;
- D. The Stetson Wind compliance report which the applicant submitted as additional evidence of the effectiveness of their noise modeling was flawed;
- E. The Department failed to consider the health effects of nighttime noise; and,
- F. The Department should not have allowed the applicant to rely on noise easements without requiring proof of disclosure of potential health effects.

The Department retained a third party acoustics consultant, EnRad Consulting (EnRad), to review the sound level study that was submitted by the applicant, as well as the evidence

submitted by the appellants and the Stetson Wind Project compliance report submitted by the applicant. The sound level study used point source calculations to determine predicted noise levels. EnRad concluded that the applicant's study is technically correct according to standard engineering practices. Regarding source calculations, EnRad stated that point source and line source calculations produce the same measurements when applied correctly. Regarding SDRS (the thumping noise associated with operation of turbine blades), Chapter 375 (10) requires a penalty of +5 dBA to be incorporated into a sound level prediction model to adjust for SDRS when it is found to occur. Both the applicant's study and the Department's noise consultant concluded that the project's noise would not meet the definition of SDRS; however, the Department found there to be sufficient concern related to the accuracy of SDRS predictability to impose monitoring requirements for that type of noise. Therefore, the Department required the applicant to include SDRS monitoring in the routine operation noise compliance assessment plan for the project as a condition of approval. As part of the monitoring requirements, the applicant is required to analyze mitigation measures if it is determined that the project is not in compliance with noise regulations. Among other strategies to achieve compliance, the applicant is required to consider and analyze potential shutdown scenarios.

The appellants argue that the Department's analysis fails to adequately consider potential health effects associated with wind turbines. In response to these concerns, during its review of the applications the Department consulted with the Maine Center for Disease Control (MCDC). MCDC considered the interested parties' concerns and found no evidence in peer-reviewed medical and health literature of unreasonable adverse health effects caused by the noise generated by wind turbines.

With regard to the appellants' argument that the Department should have required the applicant to notify property owners who were potentially granting the applicant a noise easement of potential health effects, Chapter 375(10)(C)(5)(s) exempts from regulation by the Department sounds "received at a protected location when the generator of the sound has been conveyed a noise easement for that location." The exemption does not require a warning of potential health effects in the applicant's negotiation of noise easements.

And finally, the appellants contend that, based on the appellants' arguments the Board should declare that Chapter 375, Section 10 is inadequate for permitting wind power projects and that this project should be reviewed without regard to those regulations. The appellants request that the Board hold a public hearing on the noise issue based on "credible conflicting technical information regarding a licensing criteria" pursuant to Chapter 2 § 7.B. Based on the evidence in the record and the analysis by the Department's noise consultant, EnRad, the Department recommends that the Board deny the request for a public hearing and find that in addition to meeting the limits in the Noise rules, the applicant has made adequate provision for the control of noise and the proposed project will not result in an unreasonable adverse effect on existing uses and the natural environment.

3. SCENIC CHARACTER, VISUAL QUALITY, AND EXISTING USES: Appellants Powers Trust and Brian Raynes contend that the visual impact assessment submitted by the applicant is inaccurate, and inconsistent, does not fairly depict the extent of the visual impact of the Project on Pleasant Lake and does not give DEP adequate information to properly evaluate

the visual impact. Pursuant to the Wind Energy Act, an applicant must demonstrate that the development would not significantly compromise views from a scenic resource of state or national significance to such an extent that it has an unreasonable adverse effect on the scenic character of the scenic resource of state or national significance. The applicant was required to assess the scenic impact of the project on resources of state or national significance located within three miles of a proposed turbine. The applicant submitted a general visual assessment which evaluated scenic resources within a three mile and eight mile radius of the proposed project. The initial assessment did not identify the eastern portion of Pleasant Lake as a scenic resource of state significance, due to the applicant's reliance on an incomplete listing which was posted on the State's Wind Energy Task Force website. The applicant's consultants subsequently discovered this omission and provided an assessment, dated June 30, 2009, specific to Pleasant Lake.

Pursuant to the Wind Energy Act, within the organized territory of the State, in order to be considered a scenic resource of State or national significance, a great pond must be listed as one of the 66 lakes having outstanding or significant scenic quality in the "Maine's Finest Lakes" report published by the Maine State Planning Office, or, if in the unorganized territories of the state, listed on the "Maine Wildlands Lakes Assessment" published by the Maine Land Use Regulation Commission, pursuant to 35-A M.R.S.A. Section 3451 (9)(D). The western portion of Pleasant Lake is in the organized town of Island Falls and is not listed on the "Maine's Finest Lakes" report. The eastern portion of the lake is located in T4 R3 WELS and is listed on the LURC list as being "significant" for scenic character.

As noted above, when its consultant discovered that Pleasant Lake was on the LURC list, the applicant submitted an "Addendum, Visual Impact Assessment" specific to Pleasant Lake. In response to comments submitted by the Appellant Trust the applicant also submitted, on November 2, an additional visual simulation of the project from the southern shore of the eastern portion of Pleasant Lake, the area of highest project visibility. These materials demonstrate that a cluster of turbines will be visible from the lake at a distance of over one mile. Based on the materials submitted by both parties the Department found that this was not an unreasonable impact.

4. DECOMMISSIONING: Appellants Powers Trust and Brian Raynes contend that the Department failed to require a fully funded decommissioning account as a condition of approval. The appellants also object to the deduction of scrap value in estimated decommissioning costs. The Site Law permit application form requests that applicants provide a demonstration that, upon the end of the useful life of the facility, the applicant will have financial assurance in place for 100% of the total cost of decommissioning, less salvage value. At the time of the filing of this application, the Site Law permit application form stated that an applicant could propose securing financial assurance in phases, as long as complete financial assurance is in place a minimum of 5 years prior to the expected end of the useful life of the equipment. The expected operating life of the proposed wind turbines is 20 years.

In response to the comments and concerns from the general public regarding the adequacy of the Department's general decommissioning requirements the Department placed conditions on the permit for this project requiring incremental collection of decommissioning funds beginning

in year 1 of project operation and for more frequent reassessment of salvage value. These conditions are substantially similar to the additional requirements which the Board recently approved for the Record Hill Wind Project.

**Other Considerations:** All three appellants contend that the proposed wind energy development will have an adverse impact on the value of their property. None of the applicable laws require that an applicant make a demonstration with regard to potential impacts of a proposed project on property values.

**Department Recommendation:** After reviewing the appellants' arguments and the applicant's arguments, the Department recommends that the Board deny the appellants' request for a public hearing and affirm the Department's decision to approve the proposed wind energy development in Department Order #L-24572-24-A-N/L-24572-TF-B-N.

**Estimated Time of Presentation:** 3 hours

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