

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Petition of Deerfield Wind, LLC, for a certificate of public good)
authorizing it to construct and operate a 15-turbine, 30 MW)
wind generation facility, and associated transmission and)
interconnection facilities, on approximately 80 acres in the Green)
Mountain National Forest, located in Searsburg and Readsboro,)
Vermont, with turbines to be placed on the east side of Route 8)
on the same ridgeline as the existing GMP Searsburg wind facility)
(Eastern Project Area), and along the ridgeline to the west of)
Route 8 in a northwesterly orientation (Western Project Area))

REPLY BRIEF of
SAVE VERMONT RIDGELINES, INC. and
INDUSTRIAL WIND ACTION GROUP, INC.

February 20, 2009

I. NEED FOR PRESENT AND FUTURE DEMAND FOR SERVICE [30 V.S.A § 248(b)(2)]

In their January 22, 2009 initial briefs, both the DPS and Deerfield assert that the proposed facility is “required to meet the need for 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.” Each further asserts that Deerfield “is not a regulated distribution utility under Vermont Law and is not required, nor does it have the ability, to deliver energy conservation programs and load measures to Vermont electricity consumers” (Deerfield 1/22/09 Brief, para 154). They conclude the project satisfies the (b)(2) standard by helping to meet a demand for renewable energy and that the need served by the project cannot be met by other alternative measures or programs.

We believe the theory put forth by DPS and Deerfield is fundamentally flawed for these reasons:

1) The DPS and the Board insist on a long term stably priced contract which necessarily implicates (b)(2) because the company with which Deerfield must make the contract is subject to (b)(2) even if Deerfield were not. The company with whom the contract is made would have to show that the contract will fulfill its (b)(2) obligations else there would be no reason to have the contract. In other words, the contract would not be beneficial because it would fail to use energy conservation where energy conservation is the preferable course of action.

2) The Public Service Board is obligated to decide what is good for Vermont, not what is possible for Deerfield. The statute requires the Board to ensure that energy conservation is afforded the highest priority. Thus, if Vermont is better served by energy conservation, we argue that the Board should deny certification unless the proposal includes a requirement to make a contract with a Vermont distribution company to sell the electricity and that sale of the electricity is part of the project.

3) If the DPS and Deerfield were correct, developers opting to construct wind energy facilities in the State of Vermont could build with no expectation that Vermont utilities would buy the electricity since conservation would be a preferable course of action. Or, the Board would refuse approval of a distribution company’s attempt to sell electricity acquired from the operator based on the premise that demand is more efficiently and less expensively addressed through alternative measures. But, Deerfield would still have created all of the construction and adverse visual and other impacts by building the project.

The aforementioned reasons require that the Board not consider the project in isolation and, it is our assertion that the only way to perform the 248 analysis is to either assume or require that the electricity be sold to Vermont residents. In that case, (b)(2) states that residents should not have to pay more money for electricity where energy conservation would meet the same need and do so less expensively. In other words, if (b)(2) is not met, there are no benefits to the project since the statute requires the Board must prefer conservation to generation.

Deerfield states in its January 22 initial brief (page 44) that it had filed a request with the Board for "certification of the revised 15-turbine project as a "SPEED project". This request, dated January 15, 2009, is pending a determination by the Board.

Deerfield asserts "Privately-financed projects like the revised 15-turbine project are not required to demonstrate compliance with section 248(b)(2) if they obtain SPEED certification."

We note that the Statute governing the SPEED program states the following:

"The board shall create a standard contract price, or a set of maximum and minimum provisions, or both, for qualifying SPEED resources over 1 MW of capacity. In setting a standard contract price for a qualifying SPEED resource, the board shall consider the goal of developing qualified SPEED resources, least cost provision of energy service under section 218c of this title, and the impact on electric rates. The board may create a competitive bid process through which to select a portion of those contracts;"

We are not aware whether the Board has taken steps to establish a contract price for the proposal nor do we know whether Deerfield can meet such a contract price.

Further, in order to obtain exception from (b)(2), Deerfield must show that no part of the facility will be "financed directly or indirectly through investments, other than power contracts, backed by Vermont electricity ratepayers". In fact, Vermont ratepayers are invested in the facility to the extent it receives substantial tax credits partially paid for by the taxes of Vermont ratepayers.

SPEED certification should have no impact on whether Deerfield is obligated by the Board to enter into a power purchase agreement with a Vermont utility. Douglas Thomas' prefile testimony on behalf of the DPS (Thomas pf 8-9) states the benefits of the project...

“...accrue to the owner but can only be shared by Vermont ratepayers if there is some kind of purchase agreement that allows this stability to be passed on to Vermont ratepayers. The alternative is contracts based on market prices. However, these contracts do not transfer the benefits of stability to Vermont. This does not necessarily mean that stably priced contracts will always be the preferred purchase method, but these instruments do offer Vermont an excellent method for capturing the economic benefits of a fixed-cost resource like Deerfield. And of course, to the extent Deerfield does not contract with Vermont utilities for either energy or potentially RECS, while there may be benefits to the region, there would not be, effectively, any direct benefit to Vermont.”

As noted above, if Deerfield is exempt from (b)(2) a contract between Deerfield and a Vermont distribution company, GMP or whomever, will still have to comply with (b)(2) and any contract that is submitted must be shown to be the best stably priced contract and make sense for the distributor's ratepayers.

The Board has made the contract a topic that must be addressed during these proceedings, and DPS agrees, thus the contract must still be shown to make sense under the (b)(2) criterion for the distribution company even if Deerfield does not have to meet the requirements for the project itself. In short, even if Deerfield can get the project approved without (b)(2), the project cannot provide any of the benefits unless the power is sold. If the power is sold to a regulated utility like GMP, the sale cannot be acceptable if it does not comply with (b)(2).

II. SYSTEM STABILITY AND RELIABILITY [30 V.S.A § 248(b)(3)]

The DPS asserts that, while it cannot provide a final opinion on this criterion until, at a minimum, the System Impact Study is completed, the positive results of the feasibility study and the system impact study for the initial 45 MW project make it likely that the new System Impact Study will find the smaller project has no adverse impact on the existing transmission system. (DPS Brief 1/22/09). We generally agree with this assertion but note Deerfield's cross-examination testimony: *“The big question mark is it's either Gamesa machines they need to be looked at from a stability perspective. I personally don't have any experience with the Gamesa units, so I'm not sure how they react”*. (tr. 12/1/08 at 226:4-8 Estey) We concur with the DPS that the parties be granted an opportunity to review the System Impact System when it becomes available and to have a chance to provide comments to the Board.

Deerfield asserts that a number of reasons detailed in the project Feasibility Study prohibit siting of the substation in proximity to the existing Sleepy Hollow facility. (Deerfield Brief 1/22/09 para 892). In fact, cross-examination testimony by Deerfield and the DPS either contradict this assertion or demonstrate that no study was undertaken to determine the costs and impacts of relocating the

substation. (tr. 12/1/08 at 206: 20-25 to 207:1-2 Estey). (tr. 12/11/08 at 135:18-25 to 136:1-14 Jordon) We encourage the Board ask for an alternatives analysis in order to determine if the current location of the sizable substation is appropriate.

III. ECONOMIC BENEFIT TO THE STATE [30 V.S.A § 248(b)(4)]

A. Analysis of Property Tax Valuations

Deerfield asserts there is no empirical basis to assume the project will have any negative impacts to “aggregate town, county-wide, or regional real property values”. (tr. 12/9/08 at 34:11-25 Kavet). Deerfield is dismissive of available anecdotal information that reflects apparent changes in property values for those properties in close proximity to a wind turbine facility. Deerfield maintains that this information is not the result of “scientifically constructed studies”. However, it does agree diminution of value occurs near turbines. (DFLD-TK-2 page 28)

Deerfield relied on three studies to validate its conclusion that no negative impacts on property values would occur: REPP 2003, Hoen 2006, and Wiser-Hoen (unreleased). The Hoen 2006 report, which post-dates REPP 2003, is highly critical of the REPP report stating it had four fatal flaws “rendering the results of the report extremely weak if not entirely misleading” (DFLD-TK-3). Deerfield acknowledged the flaws of the REPP report but appears to apply selective forgiveness when the results might suit the desired outcome (“ ...*And again I [Kavet] don't consider the REPP report to be conclusive. But what's interesting about it and significant in terms of this project is that it's specific to Searsburg.*” tr. 12/9/08 at 25:5-9 Kavet) Despite the failure of the REPP report to meet Deerfield's own standard of being a “scientifically constructed” study, the Board is being asked to trust Deerfield's conclusion, merely because the REPP report includes data from Searsburg, no matter how poorly defined.

Deerfield admits under cross-examination that aside from the REPP report, it did not examine any properties in proximity to a wind facility in New England (tr. 12/9/08 at 27:14-17 Kavet) to determine adverse impacts on property valuations. Deerfield insists the Fenner wind facility in New York, the subject of Hoen 2006, is “*not specific -- New York is not considered a New England state. But very close to it, particularly upstate New York in terms of potential impact.*” (tr. 12/9/08 at 26:18-21 Kavet), yet later admits under cross-examination that he never visited Fenner nor did he attempt to explain how Fenner is similar to the Deerfield project site (tr. 12/9/08 at 53:9-22 Kavet)

In order for the Board to concur with Deerfield's conclusion that there will be no negative impacts to "aggregate town, county-wide, or regional real property values", the Board must ignore the fact that each of the reports the applicant relied upon was either (a) fatally flawed, (b) irrelevant and/or non-applicable to the Readsboro-Searsburg area, or (c) inconclusive given the data are preliminary and insufficient to draw any supportable conclusion for the project area. In essence, it would appear that Deerfield decided the outcome it wanted, selectively reported the conclusions of the reports to support the outcome, and ignored any level of detail, if available, that suggested the reports might be inappropriately applied.

B. Economic Benefits – Jobs

Deerfield asserts the project "will have significant economic and fiscal benefits for the State of Vermont, Bennington County and the Towns of Searsburg and Readsboro as the host municipalities. These benefits include the creation of new jobs, increased tax revenue, and other direct and indirect benefits". (DFLD-TK-2 at 3)

This assertion is met with skepticism in Douglas Thomas' December 21, 2007 prefile testimony submitted on behalf of the DPS. Thomas makes clear that economic benefits in the form of jobs and increases in funds to host communities "are not viewed as sufficiently significant in their own right to warrant approval for a project like this." (Thomas pf 6) Thomas adds that the project has the potential to offer significant economic benefits, however, the project's "ability to deliver those benefits has not been established". By this, Thomas is referring to a requirement for the applicant to enter into a stably priced contract with Vermont utilities. (Thomas pf 6)

Deerfield claims "the project will generate total employment gains in the State of approximately 250 jobs" during the construction and development phases (DFLD-TK-3, p4). No validation of this number is provided. At the very least, it would be useful for the applicant to provide a comparison of the 250 construction jobs with advertised job counts from other wind energy facilities¹.

¹ **Blue Canyon (OK):** 100 construction workers, 6 people full time, 38 turbines
Fenner (NY): 30 construction workers, 3 full time people, 20 turbines
Colorado Green (CO): 300 construction workers, 15 full time people, 108 turbines
Top of Iowa (IA): 200 construction workers, 7 full time people, 89 turbines
Maple Ridge (NY): up to 300 construction workers, 10-15 full time people, 195 turbines

Absent any validation, the 250-construction job figure could have been any number. If this figure represented a primary assumption upon which the economic model was based, any inflation in this figure would further inflate the overall modeling results.

Deerfield also asserts that 9 permanent jobs will be created as a result of the project but that only 2 ½ of these jobs would be “direct full-time permanent employees at the facility”. (tr. 12/9/08 at 41:23-25 Kavet)

The DPS asserts in its January 22 initial brief that “Because the statute does not require any specified minimum level of economic benefit for a project to meet this criterion, Deerfield has met its burden” under (b)(4). The Department’s conclusion is in direct contrast with testimony filed by the DPS (Thomas pf 6). We see nowhere in the record where the DPS has disavowed or retracted Thomas’ testimony.

IV. IMPACT NATURAL ENVIRONMENT, PUBLIC HEALTH, AND SAFETY [30 V.S.A § 248(b)(5)]

A. Impacts of Noise

Deerfield incorrectly claims the 1999 World Health Organization’s (WHO) guidelines recommend a daytime limit of 50 dBA (16 hour average) to protect against moderate annoyance and 45 dBA (8 hour average) to protect against indoor sleep disturbance. (Kaliski pf. at 5; DFLD-KK-4 at 3; tr. 12/2/08 at 148 (Kaliski)).

WHO and EPA guidelines are absolute (or “not-to-exceed”) noise limits and not based on nighttime averages. While Deerfield acknowledges this critical point in its January 22 initial brief (para 481), all modeled noise data generated and assertions made by Deerfield regarding noise emissions from the turbines are entirely predicated on average noise limits. This is a remarkable oversight that raises serious doubt as to project’s ability to meet the WHO standards.

The DPS failed to notice the misrepresentations made by Deerfield when it states “The results of the modeling analysis show that the highest sound level modeled at a home is just under 45 dBA. (DPS-MK-1 p22) In fact, this is not what Deerfield stated in written prefiled testimony. Rather, Deerfield asserts “...the highest modeled 8-hour average [emphasis added] nighttime sound level was 43 dbA for the combined Searsburg/Deerfield impacts.” (Kaliski pf. at 4) Average noise limits cannot be construed as maximum noise levels.

Deerfield claims the modeling methodology yielded conservative results, but absent any verifiable data in the evidentiary record on how the study was conducted and the error rate associated with the study, the Board is essentially being asked to trust the assertions with no supporting evidence.

It is well understood that the worst case scenario for creating nighttime sleep disturbance involves multiple noise events none of which necessarily exceed threshold levels by much, i.e. roughly 5 dB(A). Such events would include the noise pulses generated when turbine blades pass by the tower. Still, given Deerfield's adherence to a nighttime average standard for noise set at 43 dBA leq(8) at the exterior wall of the home, noise levels could fluctuate within a range from 0 to 86 dBA and still be within compliance.

B. Ice Build-up and Shed

Deerfield asserted in DFLD-KK-5 and under cross-examination that ice build-up on the turbine blades can result in increased noise levels. (tr. 12/2/08 at 92:5-25 Kaliski). Deerfield states that noise cause by ice on the turbines will not occur often because "you don't operate the turbines once the icing is discovered". (tr. 12/2/08 at 93:1-5 Kaliski). Mr. Kaliski, for Deerfield, could not recall the basis for his assertion that the turbines turn off. (*"I believe that was a conversation with Mr. Zimmerman, if I recall correctly."* (tr. 12/2/08 at 80:18-18 Zimmerman)) This suggests Deerfield, at best, is not qualified to comment on the duration of noise level increases due to ice build-up on the turbine blades.

Deerfield testified that a sensor on the turbine was capable of recognizing when ice had built up on the blades, but was unprepared (or unqualified) to testify how long the turbine would continue to spin with ice before the sensor triggered a shutdown. (tr. 12/2/08 at 215:13-25 Habig)

Deerfield asserts that the ice on the blades will not create undue noise or a dangerous ice throw condition because the turbine automatically shuts down when ice forms on the blades. However, in the citations above, Deerfield stated it was either unqualified (Zimmerman) or unable to respond (Habig, Kaliski) to specific questions about turbine operation during icing conditions. The only information we received from Deerfield is anecdotal information relayed about an Iberdrola wind facility in Pennsylvania where an ice fragment was witnessed at a distance of 500-feet from the turbine. Deerfield was unable to provide evidence regarding humidity conditions or other factors that would show how the Pennsylvania site compared with what we might expect at the proposed project site.

Deerfield asserts "there are no studies in the record that support the use of a one-quarter mile or one-half mile distance as an appropriate or necessary safety zone for ice throw; rather, at most it represents the maximum theoretical distance ice could be thrown under ideal conditions from turbines of a different height and size." (Deerfield Brief 1/22/09)

We argue that, in fact, none of the witnesses for Deerfield (Habig Panel, Zimmerman) were qualified to discuss the hazards of ice throw from the turbines. Zimmerman admits on the witness stand that he is not an ice expert. Thus, and documentation entered into the record by Deerfield on the topic of ice throw is hearsay and information that cannot be relied upon to make any determination as to an appropriate safety zone around the turbine. We would recommend a safety zone of no less than ½ mile in the absence of credible testimony that validates a lesser distance. At no time should Deerfield be permitted to throw, or drop ice across property lines onto private properties adjacent to the project site.

Date at Lyman, New Hampshire, this ____ day of February, 2009.

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