

*Dr. Fred Ward* Meteorological Consultant

386 Route 123 South  
Stoddard, NH 03464  
603-446-2312  
drfred@myfairpoint.net

30 March 2015

Site Evaluation Committee  
N.H. Department of Environmental Services  
29 Hazen Drive  
Concord, NH 03302-0095

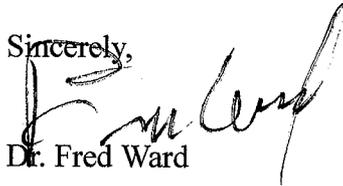
Re: Docket No. 2014-05: Antrim Wind Energy, LLC Petition for Jurisdiction Over  
a Renewable Energy Facility

Dear Sir or Madam:

In connection with the above-referenced docket, I am filing an Objection to the AWE Objection to Dr. Fred Ward's Motion for Reconsideration in the above-referenced matter.

If you have any questions regarding these materials, please do not hesitate to contact me.

Sincerely,

  
Dr. Fred Ward

Enclosure

STATE OF NEW HAMPSHIRE  
SITE EVALUATION COMMITTEE

PETITION FOR JURISDICTION OVER A RENEWABLE ENERGY FACILITY  
BY ANTRIM WIND ENERGY LLC

SEC DOCKET NO. 2014-05

**OBJECTION TO ANTRIM WIND ENERGY'S OBJECTION TO DR. FRED WARD'S  
MOTION FOR RECONSIDERATION**

Dr. Fred Ward respectfully submits this Objection to Antrim Wind Energy's (AWE) Objection to Dr. Ward's Motion for Reconsideration. In support hereof, Dr. Ward states as follows:

1. AWE seeks to limit Dr. Ward's participation in this matter to issues related to his property interests. They assert that his non-property issues were not part of his earlier stated concerns, and therefore involve new material. It might be that his earlier material was not stated as clearly as it might have been, but their objection, for example, to his bringing in such material as they state in Item #5, line 2, shows that they understood the fundamental nature of his meteorological objections to wind power on the state level, and its foundational effect on these proceedings. Further, as noted below, this fundamental meteorological problem was noted in a number of places in his filing.

2. Responses to specific numbered AWE objections:

Objection #1, at no time did Dr. Ward hinge his objection on the "validity of the data collected from AWE's meteorological tower", for the simple reason that AWE has refused his multiple requests to examine that data. That objection is both wrong and irrelevant to their argument.

Objection #2, Since the foundation of Dr. Ward's concerns relates to the much wider area affected by this proposal, whereas all the other non-abutters are focused on the neighborhood surrounding the site, it is hard to understand the relevance of AWE's question of consolidation.

Objection #3 states Dr. Ward's case succinctly. It is precisely for the purpose of considering the state-wide implications of the special topography and meteorology of New Hampshire that argues for the SEC to take control, and consider this case, above and beyond his property interest.

Objection #4, At no point has Dr. Ward stated that he will not "co-ordinate with the class of non-abutting landowners". He has been coordinating with them for years. But his stated (state-wide) interests, go well beyond their interests, which AWE acknowledges explicitly in their #5, line 2. If his "letter" gives away the obvious fact that he has not engaged a high-priced attorney, so be it.

Objection #5, see above. Further, AWE objects that Dr. Ward "did not raise these arguments in his initial petition for intervention". It is true that the main thrust of Dr. Ward's initial petition was as a non-abutter, reflecting the unfortunate lack of concern for residents outside the Town of Antrim and the county of Hillsborough. This unfortunate state of affairs is so outrageous, although apparently the law, that Dr. Ward felt that this situation required correction, and substantial explanation. However, Dr. Ward in #4, immediately followed this geography lesson, by stating his overriding professional meteorological interest. This professional interest quite obviously has no bearing on his non-abutter status, as his #8 makes clear, and his #9 and #10 elaborate. His #14 b & c summarize his professional interests, making them, and his petition including them, difficult to ignore.

Objection #6, Dr. Ward has stated his exasperation that, since windmills are such an obvious meteorological issue (if not, what is?), there has never been a serious discussion of the effects, and limitations, of the special topography and meteorology of New Hampshire, and their fundamental effects, and limitations, on the generation of electric

power from wind turbines. He has also expressed his disappointment that the SEC has not reached out to the larger community of NH meteorologists for advice and counsel. If this "class of unknown meteorologists" is not known to the SEC, Dr. Ward could populate an SEC hearing with them.

Objection #7, Dr. Ward has stated on many occasions his disappointment that the regulations seem to totally ignore the interests of the residents of Stoddard, the center of which Town is closer to Tuttle Hill than the center of Antrim, and the rest of Hillsborough county. The regulation that restricts notice to abutters across the county line makes no sense, and should be ignored. Even cell towers, which are infinitely less obtrusive than a rotating turbine, require notice to Towns within a 10-20 mile radius. The Stoddard town line is about one mile away.

Objection #8, Dr. Ward apologizes for his limited legal knowledge, and the details of the law, expecting his petition would be taken on its face, with the main issues identified. If this is irreversible error, so be it. He prays that the meaning of "unreasonable" in line 3 in AWE #8 will be expansively considered.

Objection #9, The AWE claim that Dr. Ward did not "identify one error of fact, error of reasoning or error of law" totally ignores the big elephant in the room. A competent and comprehensive meteorological analysis will demonstrate, as AWE so beautifully states in line 2 of their #5, "wind power is an untenable proposition in this State".

Dr. Ward explained to the Committee on 4 March 2015, that his analysis of the official wind speed data from all over New Hampshire showed that these speeds go up and down together. When one turbine is operating at maximum capacity, all the others will be operating at (or near) maximum capacity too! Their well-known 1/4 to 1/3 operating efficiency means that in order for wind power to reach the legislatively mandated 15%

AVERAGE contribution to the ISO/NE grid, wind facilities will be required to make about a 50% contribution to the grid when they are all operating at their MAXIMUM capacity. The legislative mandate of a 15% AVERAGE contribution requires one-thousand 3Mw turbines (operating at 1/3 to 1/4 efficiency), but it never considered that they would either be all "on" or all "off" (or partly on/off) at the same time. This simple fact means that the 15% AVERAGE leads to a technically unattainable conclusion. The meteorological data also show that a 50% surge, likely in the middle of the night when the system needs little "extra" energy, will occur, and blow the grid, about twice every week. The wind speed correlation therefore shows that there must be a severe, and very low limit, on the total number of Industrial Wind Facilities allowed in New Hampshire. Further, since the times when even these few facilities will be contributing to the ISO/NE grid will occur only in very specific weather situations, even these few facilities must be carefully placed around the grid. Both the cap on the total number of IWFs, and their specific sites, need to be determined by ISO/NE on purely technical grounds, and PRIOR to any SEC approval of any specific site(s).

Dr. Ward leaves it up to the Committee to determine whether this is an error in fact, in reasoning, or in law.

### 3. Summary

The AWE objections to Dr. Ward's request to be considered separate from the other non-abutters, stems from the serious meteorological issues, and their implications, which are omitted from their application. The issue before the SEC is whether to take control of these proceedings, and Dr. Ward's main issue is to emphasize that any Industrial Wind Facility that feeds power into ISO/NE grid will necessarily affect all of New Hampshire, and requires the SEC to make the decision on it, regardless of its size or location, within the context of other such facilities in the State and in New England. While

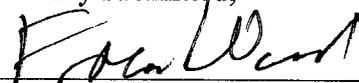
he has a property interest in this issue, as other non-abutters also do, he asserts a much more serious problem. His interest also includes his neglected Town of Stoddard.

In summary, Dr. Ward is a meteorologist, not an attorney, and if he did not cross every "T" and dot every "I", he apologizes. That the importance and implications of his remarks was very clearly understood by AWE, and presumably by the Committee, is starkly shown by AWE comment #5, which Dr. Ward admits is a much better and more concise statement of his position than he has produced. The issue is state-wide, and Dr. Ward has been, and remains, the sole party in these proceedings to treat it as a state-wide issue, which screams for the SEC to take jurisdiction.

4. Consistent with the arguments set forth above, Dr. Ward requests that the Committee accept Dr. Ward's Motion for Reconsideration in the above-referenced matter.

Respectfully submitted,

Dated: March 30, 2015

By: 

Dr. Fred Ward

386 Route 123 South

Stoddard, NH 03464

603-446-2312

drfred@myfairpoint.net