20 January 2015

Mr. Martin P Honigberg, Chairman New Hampshire Site Evaluation Committee NH Dept of Environmental Services 29 Hazen Drive, PO Box 95 Concord, New Hampshire 03302-0095

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

Dear Chairman Honigberg:

Enclosed please find for filing in this matter the Motion to Intervene of Dr. Fred Ward.

Sincerely

Dr. Fred Ward 386 Route 123 South Stoddard, NH 03464

THE STATE OF NEW HAMPSHIRE SITE EVALUATION COMMITTEE

Docket No. 2014 - 05

Re: Antrim Wind Energy, LLC

PETITION FOR INTERVENTION BY DOCTOR FRED WARD

NOW COMES the Petitioner, Doctor Fred Ward of New Hampshire, respectfully petitions the New Hampshire Site Evaluation Committee ("the SEC") to grant him leave to intervene in these proceedings pursuant to NH Code of Administrative Rules, site 201.11, and RSA 541-A:32. In support of his petition, Dr. Ward states as follows:

- 1. Doctor Ward is a resident of New Hampshire, with his home at 386 Route 123 South, Stoddard, NH 03464 (Telephone 603-446-2312)
- 2. This petition is filed in response to a petition filed by Antrim Wind Energy LLC ("AWE") on or about November 26, 2014 seeking the SEC's acceptance of jurisdiction with respect to a less than 30 megawatt wind energy project ("the Proposal") proposed to be sited in the western part of Antrim, New Hampshire (the "Proposed site") (Docket 2014-05).
- 3. Doctor Ward's domicile will have the closest view from the Town of Stoddard, being 2-3 miles from the proposed turbines. The site forms a prominent part of his eastern horizon, with the tops of the hills, and the proposed towers with their flashing red lights, visible 365 days and nights each year. He will also be affected by shadow flicker for 10-15 minutes every morning during two 6-week periods each year.
- 4. Doctor Ward is a meteorologist, with Bachelor, Master and PhD degrees from MIT, all in meteorology. He performed research for decades for the Air Force Geophysics Laboratory, published

dozens of peer-reviewed papers in meteorological journals, founded and was CEO of a multi-million dollar meteorological company, was the nighttime TV meteorologist on Channel 7 in Boston, and has consulted for 50 years on projects in New England and around the world.

- 5. His experience in his observatory at night is that there are constant airplanes flying over his home and the proposed site, so that the flashing red lights, which are proposed to be operating only when such planes are in the vicinity, will be flashing most of the time, day and night, ruining his view of the eastern sky, the view of which was an important consideration in his choice of the site of his home and the construction of his observatory.
- 6. Doctor Ward was a major matching contributor to the fund to acquire the land designated as Robb Reservoir, and owns substantial abutting land, also in conservation.
- 7. The previous hearings by the SEC were never advertised in his Town of Stoddard, or in Cheshire County, the Town and County which is as close to the site as the Town of Antrim and Hillsborough County. He was not informed of the earlier hearings in time to file as an intervenor.
- 8. In his professional capacity, Dr. Ward has noted many major errors in, and incomplete explanations of, the stated environmental impacts of the proposed development.
- 9. Dr. Ward has also questioned the incompleteness of the data allegedly collected and analyzed from the original meteorological tower on the site. His requests to obtain copies of these data have been turned down, resulting in an Iron Curtain over any serious discussion of the data, their applicability to their intended purposes of showing the facility's environmental effects, or their relevance to such intended purposes. These data have not even been shown to support the topographic and meteorological "models" used by the petitioner in its earlier allegations that the facility will have little or no impact on the environment of the ridge, its surrounds, or its neighbors. This incompleteness extends even further back, to the selection and justification for the selected site of the tower. No competent meteorologist would agree that an arbitrarily sited tower on Mt. Washington could be used to describe the weather in and around that mountain, and the same can be said for the tower on Tuttle

Hill, absent a demonstration to the contrary.

- 10. This lack of relevance and incompleteness of the petitioner's meteorological data has additional downsides, including a determination of the amount of noise generated by the turbines, their frequency, the timing and extent of its broadcast to its neighbors, the determination of which neighbors are likely to be most affected and how often, and which weather on the hill is most likely to produce the most noise and be broadcast over the widest area. The model of shadow flicker has not been adapted for the very different results from an elevated site such as Tuttle Hill. The elevated frequency of icing and its throwoff is unknown, as are the areas to be affected.
- 11. The calculation of the area affected by the turbine noise requires a knowledge of the temperature structure of the lower atmosphere around and adjacent to the turbines. Since no such data has been measured, there is no way to determine the extent to which the noise from the turbines will affect him.
- 12. Overall, the proposed facility will substantially affect him by its domination of his eastern and northeastern horizon, both by its presence and its flashing red lights, by 12 weeks every year of shadow flicker from a very bright solar disk, by its undetermined noise in the middle of the night, and by the knowledge that the safety effects of icing and ice throwoff will be a factor in whether he chooses to enjoy the conserved land nearby, to which he has contributed substantial time and money.
- 13. As a professional meteorologist, Dr. Ward has been asked for his understanding of the meteorological issues raised by this proposal, and is under a professional obligation to analyze and respond to such questions.

SUMMARY

- 14. For the foregoing reasons, Dr. Ward seeks intervention pursuant to Site 202.11(b) on the following grounds:
 - (a) This petition will be served and submitted within the time limits set out in the rule;
 - (b) As set forth in this Petition, Dr. Ward has substantial rights, interests and duties (including a

professional obligation) that are affected by the proceeding;

- (c) The interests of Dr. Ward will not be adequately protected by other parties; and
- (d) The intervention of Dr. Ward will be in the interest of justice and will not impair the orderly and prompt conduct of the proceedings.

Request for Relief

WHEREFORE, Dr. Fred Ward respectfully requests that the SEC issue an order granting his petition for intervention and granting such other and further relief as it deems appropriate.

Respectfully submitted,

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

Certificate of Service

I hereby certify that, on this 20th day of January, 2015 I have caused the within Petition for Intervention to be served by electronic mail as provided in the NH Administrative Code, Site 201.07 to the persons named below.

Dr. Fred Ward

of Ward

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