From: <u>drfred@myfairpoint.net</u> [<u>mailto:drfred@myfairpoint.net</u>] Sent: Tuesday, February 02, 2016 1:02 PM To: Monroe, Pamela Cc: Bob Copeland; Dick Hendl; Joe Daleo; Bruce Schwoegler; Lisa Linowes; Lori Lerner; Kris Pastoriza Subject: Antrim Wind

1 February 2016

Ms. Pamela G. Monroe, Administrator NH Site Evaluation Committee 21 Fruit Street, Suite 10 Concord, New Hampshire 03301-2429

Dear Ms. Monroe: Re: SEC Docket # 2015-02

We, five New Hampshire meteorologists, make the following comments on the Antrim Wind Energy Objection to the inclusion of four of our number as intervenors, and the fifth as part of a set of non-abutters with no technical connection to meteorology.

Our request for the inclusion of all five meteorologists reflects the unfortunate exclusion of meteorology, and meteorologists, both in the prior AWE petition for jurisdiction 2014-05, and the total exclusion of meteorology in the development and approval of the rules 2014-04. We do not understand how a subject so fundamental to the question of the siting of Industrial Wind facilities in New Hampshire, could have been, and continues to be, so completely ignored. It is our hope that through the addition of our very unique, and different, perspectives, we can demonstrate to the Committee that not only do these meteorological issues require serious consideration, but that this is a statewide problem affecting all NH meteorologists, and their neighbors and friends, and the voters and legislators who turn to them for advice.

The issues we plan to address range from the potential effects of these huge structures on the interpretation of information from weather radars, for which Mr. Copeland's expertise is valuable, to concerns of climate change which was the original driver of this application for "clean energy", and about which Dr. D'Aleo has testified to the NH legislature. The overriding "cumulative" effects on ISO-NE which Dr. Ward has considered and written about are not confined to AWE, but affect all of our state. Had these meteorological concerns been properly included in the past, and particularly in the new Rules, this extended intervention would not have been necessary.

A partial list of the issues which these meteorologists plan to address are the wide range of effects of structures 1/10th of a mile high, situated on thousand or multi-thousand foot high, and isolated, hills and ridges; the cumulative effect of the high correlation of the winds over our state on large surges of power to the ISO-NE grid; the introduction, discussion and acceptance of meteorological models which are known to be irrelevant and/or meteorologically wrong; the introduction, discussion and acceptance of meteorological data which are irrelevant to the issues at hand; the general acceptance that meteorological data from ground weather stations is applicable to sites one-tenth of a mile above isolated hills and ridges; the total lack of data on icing on elevated, rotating, structures; and the general lack of concern for the radically different meteorological visibility of an enormous elevated structure, with constantly changing perspective, rotating, with flashing lights and noise, and with the sun reflected

and shadowed at various times. These meteorologists will also be available to the Committee for expert testimony, if required.

Responding to particular items raised by AWE.

#3, The meteorological issues raised in this proceeding are statewide in nature, and diverse in their meteorological application, requiring a statewide view and a diverse set of expertise.

#4, These meteorologists have participated in, and presented information to, many diverse audiences, without complaints about their relevance, and their prompt and orderly behavior. The TV meteorologists are also known for their two and one-half minute brevity.

#5, That meteorology as an issue has been relegated by this Committee to an almost invisible level has caused meteorologists statewide to question the Committee's sincerity. That meteorologists in general, and these meteorologists in particular, have to justify how their "interests are affected by the proceedings in some manner differently from the public...." is a sad commentary.

#6, The applicant has hurled a professional insult at meteorologists all over this state by the studied neglect shown toward the profession of meteorology, with meteorology hardly considered and issue in their application.

#7, These meteorologists are still working at their profession, and the implication that this proceeding, and its attendant publicity does not reflect on their professional interests and capabilities, is eloquent testimony to the applicants limited understanding of both the meteorology of New Hampshire and its implications for wind power.

#8, As the applicant is well aware, serious participation requires the ability to be able to present evidence, make professional comments, and question witnesses, requiring intervenor status.#9, If the meteorological concerns of these professionals is thwarted at this hearing, the same concerns will arise at future hearings in different areas of the state, requiring more time spent both by both the Committee, and by the meteorologists in the area.

#10, If the different interests between the public and these meteorologists is not painfully obvious to the applicant, the applicant is not qualified to file an application.

#11, Same as #10.

#12, The grouping that the applicant suggests was in fact the procedure used at the prior hearing. A simple perusal of the of the transcript of this hearing (particularly a quick word search for meteorological terms) demonstrates that that grouping resulted, as the applicant again hopes, in meteorology being almost completely ignored. If the applicant intends to use this same legal tactic, and is able to squeeze through without facing fundamental meteorological concerns, the hearing will be a waste of time and resources.

In summary, there are many different meteorological issues to be addressed, which affect not only Antrim, but the entire state, requiring a diverse group of meteorologist from diverse areas of the state. No single meteorologist could cover them all.

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