

**State Of New Hampshire**  
**Site Evaluation Committee**  
**Petition Of The House Of Representatives, Science Technology**  
**And Energy Committee, To Adopt Rules Establishing Procedures**  
**And Siting Criteria For Wind Powered Facilities**  
**Docket 2013-01**  
**Testimony of Lisa Linowes**  
**March 29, 2013**

## **I Introduction**

My name is Lisa Linowes. Since 2006, I have served as executive director and spokesperson for the Industrial Wind Action (IWA) Group, a national advocacy group focused on policy issues associated with industrial-scale wind energy development. In this capacity, I have been an intervenor on four separate dockets before the Site Evaluation Committee (SEC) including Lempster Wind, LLC (SEC Docket No. 2006-01), Granite Reliable Power, LLC (SEC Docket No. 2008-04), Brookfield Renewable Power Inc. (SEC Docket No. 2010-03) and Antrim Wind, LLC (SEC Docket No. 2012-01). I also intervened before the Vermont Public Service Board in reference to the Deerfield Wind LLC (PSB Docket 7250) and have offered testimony in other proceedings around the country. In addition, I worked with Representatives Ward and Phinizy on HB 1568<sup>1</sup>, a 2006 bill before the House Science, Technology and Energy Committee which was not brought to a vote by the Senate but eventually led to the Ad Hoc committee that developed the Guidelines. I participated on the Ad Hoc committee.

## **II Background and Purpose**

New Hampshire's energy policy requires that 23.8% of our energy load be met with renewable energy resources by the year 2025. Of this percentage, 12.4% represents the Class I REC requirement which includes wind energy. Assuming a total RPS obligation of nearly 3

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<sup>1</sup> HB 1568 was an Act establishing a committee to study the siting and construction of commercial wind energy facilities. <http://www.nhliberty.org/bills/view/2006/HB1568>

million megawatt hours by 2025<sup>2</sup>, the State of the New Hampshire already has sufficient existing in-state resources to meet the State's 2025 compliance for Class I RECs (see table below). While many of these RECs are sold out of State, the New England REC market is rapidly changing as new, existing, and imported resources are approved under the various State RPS policies.

	<b>Project</b>	<b>MWh per year</b>
1	Lempster Wind (24 MW)	63,072
2	Granite Reliable Wind (99 MW)	260,172
3	Groton Wind (48 MW)	126,144
4	Shiller Biomass (50 MW)	319,740
5	Alexandria Indeck (15 MW)	105,120
6	Berlin Biopower (68 MW)	542,069
	<b>Total (304 MW)</b>	<b>1,416,317</b>

*Notes: Assumes projects are in service and without curtailment*

Given the current circumstances, the State of New Hampshire can afford the time necessary to investigate the impacts of the existing wind energy projects in the State and region and to develop and validate siting guidelines that will ensure projects are fully evaluated and the environmental and economic effects of these projects do not create unreasonable adverse effects.

My testimony is not intended to be a comprehensive analysis of the SEC process. Rather, the purpose of my testimony is to highlight how siting guidelines for wind energy development, if established, would streamline the process and ensure more efficient adjudicative proceedings and better, more reliable outcomes.

### **III Testimony**

I have been granted full intervenor status in four dockets before the SEC involving industrial-scale wind energy development. There are clearly elements of the SEC process as well as provisions in its governing statute (RSA 162h) that deserve closer examination and amendment. I look forward to the opportunity to speak on these larger issues before the SEC or the appropriate Committees at the State House. My testimony today is limited to the benefits of

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<sup>2</sup> NH PUC 2011 Renewable Energy Portfolio Standard Review  
<http://www.puc.state.nh.us/Sustainable%20Energy/RPS/RPS%20Review%202011.pdf>

establishing siting guidelines and how these guidelines would informed the SEC process and, if implemented correctly, streamline the review.

#### **a. The Application**

RSA 162-h:7 IV and V establish the contents of an Application submitted to the SEC. For wind projects, applicants must meet the requirements of a DES Dredge and Fill permit application, the Alteration of Terrain permit application and also must

- (a) Describe in reasonable detail the type and size of each major part of the proposed facility.
- (b) Identify both the preferred choice and any other choices for the site of each major part of the proposed facility.
- (c) Describe in reasonable detail the impact of each major part of the proposed facility on the environment for each site proposed.
- (d) Describe in reasonable detail the applicant's proposals for studying and solving environmental problems.
- (e) Describe in reasonable detail the applicant's financial, technical, and managerial capability for construction and operation of the proposed facility.
- (f) Document that written notification of the proposed project, including appropriate copies of the application, has been given to the appropriate governing body of each community in which the facility is proposed to be located.
- (g) Provide such additional information as the committee may require to carry out the purposes of this chapter.

No definitions are provided in either the Statute or the Committee's rules which explain specific studies to be conducted by the Applicant in order to demonstrate, for example, the impact of the proposed facility on the environment. And no requirements address standards for conducting appropriate post-construction surveys. Since siting of wind power facilities presents challenges that are different from those faced by other types of energy facilities, there are well established protocols for conducting studies that aim to predict and address the impacts. Siting guidelines would help the SEC, State Agencies, and Applicants in deciding what studies should be conducted and the protocols to be followed PRIOR to an application being submitted. In some cases the SEC has required that additional studies be conducted after a project is permitted. This

process is inherently unfair to the public and unduly discriminates against the public's involvement.

## **b. Wildlife Studies**

Most people may not realize that the proponent for Lempster Wind refused to conduct various preconstruction studies and/or activities necessary for determining the impact of the project prior to submitting an Application to the SEC. This fact would not have become public but for an April 9, 2007<sup>3</sup> letter by US Fish and Wild Service (USFWS) submitted as public comment to the SEC which stated:

The U.S. Fish and Wildlife Service, Department of Environmental Services, Department of Resources and Economic Development and Department of Fish and Game staff have held several coordination meetings with Community Energy Inc. (now Iberdrola Renewables) and their consultants starting on April 8, 2005. Mr. Tim Drew of DES kindly coordinated the initial and subsequent interagency meetings with CEI. During this pre-application period, discussions were focused on the information needs of the various parties for the purpose of conducting necessary and appropriate environmental review of the proposal. The preconstruction study recommendations of the Service were consolidated and described in a letter to Mr. Jeff Keeler of CEI dated July 28, 2006. A number of preconstruction studies and/or activities indentified in the July 28 letter remain to be completed.

The SEC took no action on the letter and the Project was approved just the same. It was argued at the time that the Committee should deny the certificate based on the finding that Applicant did not demonstrate that the project will not cause an unreasonable adverse effect on the natural environment or that the proceedings be suspended until experienced Federal and State biologists and the Applicant can agree on a the studies and the parameters for such studies so as to better assess risk and develop a plan for post-construction mitigation.

Had guidelines been in place at the time, much of the debate could have been avoided.

Since Lempster was certificated, the SEC has review three other industrial-scale wind energy facilities. In each case, the Applicants conducted various pre-construction environmental studies using study protocols largely defined by the them. Days of cross-examination were spent challenging the adequacy of the studies but absent established environmental guidelines the SEC

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<sup>3</sup> This was in the middle of the adjudicative proceedings. The SEC's decisions issuing a certificate with conditions was released on June 28, 2007.

generally accepted the Applicants' claims that their projects would not cause unreasonable adverse effects. In the case of Granite Reliable Wind, the SEC's finding flew in the face of this testimony from New Hampshire Fish and Game:

We believe the project will have an unreasonable adverse effect on the natural environment, in particular the high elevation forest ecosystem and the wildlife that rely on it. We believe that this project will fragment limited and sensitive high elevation habitat, which is a rare component of New Hampshire's forested ecosystem and is critical habitat for American marten, Canada lynx, Bicknell's thrush and the American three-toed- woodpecker. We feel that in their current condition, Mt. Kelsey and Dixville Peak are blocks of relatively undisturbed habitat, which are important both locally and regionally. This project has the potential to reduce the carrying capacity of these habitats for these species by eliminating habitat and negatively influencing wildlife behavior and their use of these areas. We do not agree with the testimony of Adam Gravel and Steven Pelletier where they state, "Consequently no adverse effects resulting from the Project to the local marten population is anticipated." We believe this project has the potential to render unsuitable much, if not all, of the best marten habitat on the project area, or reduce the value of this habitat for these state-listed animals. The project will displace these animals and adversely influence the ability of these high elevation ridgelines to serve as corridors for marten and Canada lynx expansion.

A lack of guidelines has resulted in inconsistent post-construction environmental reviews. In the case of Lempster Wind, the SEC ordered that technical committee be formed to oversee bird/bat studies after the project was operational. In the case of Granite Reliable, the Applicant objected to a technical committee and none was formed. Nor was one formed to address post-construction review of Groton Wind. Instead, the SEC relied on the Applicant, F&G and DES to ensure certificate conditions are met

### **c. Safety Protocols and Setbacks**

The decision approving Granite Reliable Wind required a safety setback of 1300 feet. Groton Wind and Antrim Wind called for a 500-foot setback. No setback was established by the SEC on Lempster Wind. The inconsistency in the conditions is reflective of a lack of guidelines. The different setbacks were tied to the type of testimony introduced by the intervenors to the proceeding and the information and exhibits presented. Guidelines would help establish setbacks based on input from experienced engineers familiar with mishaps that can occur at project sites including ice throw, blade throw, fire and collapse. In testimony submitted to the State of

Vermont by Mr. Will Staats (a wildlife biologist at NH F&G), Mr. Staats said this based on his experience at the Granite Reliable Wind facility:

It has been inferred that snowmobiling and hunting can coexist with a IWT project but I can assure you this is the last place one would, or should, choose to pursue these pastimes. The danger of ice throw cannot be over emphasized. I have often worked near these turbines on our research projects in the winter and witnessed the large divots in the snow where ice has been flung from the turning blades. I have seen the steel stairs leading to the doors of turbines bowed and broken by ice falling from the nacelle. And, on one terrifying occasion, my truck was struck by flying ice that, had it hit me or anyone else close by, could have killed or caused serious injury. One operator of a wind installation told me these machines will throw a four hundred pound chunk of ice one thousand feet. And I would also add, having worked near and under these turbines on numerous occasions, I can say with certainty that the noise alone would prevent any sort of enjoyment I might get out of what was formerly mountain solitude.

Currently, there is a dispute between Groton Wind and the Town of Runney over the fact that the project roads were not plowed and sanded in the winter allowing for year-round emergency access. In discussions regarding this issue, it has become apparent that the SEC has no record of the year-round access at the Granite Reliable Wind (33 miles) and the smaller Lempster Wind projects. This is a public safety concern should an accident occur at the project site and emergency personnel have no means of reaching any injured parties. Guidelines would ensure these issues are detailed.

#### **d. Noise**

During the Groton Wind and, in particular, the Antrim Wind proceeding, days of testimony and cross-examination were held challenging the pre-construction sound survey, predictive post-construction noise modeling and the acceptable noise limits that the turbines can produce at nearby residences. Most of the examination could have been avoided altogether had the SEC adopted guidelines that establish standards explaining the purpose of the preconstruction sound surveys, the limitations of the predictive models, and any protocols needed to ensure the SEC and the public will achieve reliable results post-construction. One reason why communities are resisting the siting of wind projects is because of the overwhelming stories in the press describing the unexpected noise emissions from turbines. The problem of turbine noise is very real and very serious, and the cause of the problem is tied directly to the studies.

#### **IV Summary**

Guidelines, if established and followed, would go a long way toward streamlining the SEC process and give greater comfort to stakeholders that study procedures will inform the SEC. The Guidelines would also result in a more robust, consistent review of wind energy projects and avoid variable results depending on those intervening in the proceeding. In 2007, the Legislature expressed concern that the Guidelines were nothing more than a means of slowing down wind energy development in the State. In fact, they were intended to ensure projects could be sited in accordance with the expectations of the statute -- to not cause unreasonable adverse effects. It may take years before we fully understand the impacts of the three operating wind projects in the State. It is time we add certainty to the process by developing guidelines before another project is sited