

**THE STATE OF NEW HAMPSHIRE  
SITE EVALUATION COMMITTEE**

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<b>In the matter of the</b>	)	
<b>Application for Certification</b>	)	
<b>Pursuant to RSA 162-H of</b>	)	<b>Docket No. 2010-01</b>
<b>GROTON WIND LLC</b>	)	
	)	

**Pre-Filed Testimony of Trevor Lloyd-Evans**

**Please state your name and business address.**

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Manomet, MA 02345-1770

**Who is your current employer and what position do you hold?**

I am currently employed by the Manomet Center for Conservation Sciences (Manomet) as a Senior Staff Biologist and I have held this position since 1972. My specialties are conservation biology, evolution and avian ecology. At various times I have taught these topics both informally to staff and interns, also as courses for credit to undergraduate and graduate students for a consortium of colleges and universities (Faculty, Manomet Field Biology Training Program 1986-1997).

**What is your background and qualifications?**

Honours Zoology B.Sc. 1968 from the University of Wales (United Kingdom) and graduate coursework, qualifying exams and oral exams in Ecology at Boston University, Massachusetts. North American (Bird) Banding Council, Committee, Trainer (1998 – Present). Nuttall Ornithological Club, Cambridge, MA, Council, Vice-

President, President (1977 – 1984). Committee member Partners in Flight NE Region (US), Partners in Flight (Commonwealth of Massachusetts), Massachusetts Avian Records Committees, Member and Chair (1996 – 2003).

I have headed the Bird Migration Banding Program at the Manomet Bird Observatory since 1972 and conducted fieldwork for impact studies, state and federally funded surveys, contract and in-house research in avian conservation biology, ecology, physiology and evolutionary biology in US states and several foreign countries. Refereed publications in professional journals, presentations and contract reports are available on request.

I have researched and presented a website for Manomet that summarizes available data on worldwide large-scale wind farm projects with an emphasis on Nantucket Sound, Massachusetts.

I reviewed and submitted testimony on the wind farm application of Granite Reliable Power, LLC for certificate of site and facility in Coos County, NH.

### **Purpose of Testimony**

The purpose of this testimony is to present the State of New Hampshire with a summary review of the reports, testimony and literature available to date which address the potential impact to birds and flying mammals from the proposed Groton Wind LLC project (Applicant).

### **What material was reviewed for this testimony?**

I reviewed avian and bat surveys submitted by the Applicant as well as Applicant's responses to the second data request of the counsel for the public. Additionally, a Manomet representative was present for public testimony and I reviewed notes of Applicant's responses to direct questions from the New Hampshire Attorney General's office.

### **What is the potential impact on birds and bats during construction?**

The Applicant demonstrates the minimal impact of wind tower and road construction on habitat. It is unlikely that the construction phase of the project will impact any protected species, migratory birds or bat and is unlikely to significantly effect local populations of breeding birds during the construction.

### **Were the Applicant's studies appropriate?**

The Applicant appears to have used appropriate point counts for breeding birds and appropriate radar studies and bat detection for nocturnal migratory songbirds and bats. Applicant has not yet provided the complete data for surveys conducted in 2009 and 2010. As such, it is impossible to draw a final conclusion about the quality of the Applicant's studies at this time.

The study results do not seem, however, to be a factor in the Applicant's conclusion of minimal impact on raptor species. In direct and written comments, Applicant does not apparently anticipate any situation where there will be a taking of protected raptor species or a significant species impact.

### **Are the Applicant's post construction survey's adequate?**

The Applicant has not adequately addressed the issue of avian and bat mortality after the towers are fully operational. I recommend a minimum of two years of mortality surveys after the towers are in full operation to assess actual damage at this site.

### **Does the Applicant set an appropriate threshold for significant impact?**

I am greatly concerned by the methods by which Applicant will determine the importance or significance of mortality counts. It is not expected that any one site will impact national or even regional populations of individual species (although this has yet to be proven and may be argued to have occurred in other parts of the country). Applicant should provide a clear definition of what a “biologically significant” impact means within the context of the proposal.

I am also greatly concerned about the determination of a threshold for first year post-construction survey results. The Applicant makes reference to a comparison between first year mortality results at the proposed site and a “range of mortality documented at other projects in the Northeast.” If this threshold will be used to determine whether or not to conduct additional years of post-construction surveys then it must be clearly articulated and well justified.

### **Is the Applicant’s mitigation sufficient?**

The Applicant’s survey data has shown that the peregrine falcon, a protected species, can be expected to be found within the turbine area. Should there prove to be a taking of peregrine falcons or any other protected raptor species I do not see an adequate mitigation plan. Given that a protected species has already been observed within the study area, further data and substantially effective mitigation would surely be a minimal precaution.

The Applicant should explain how impact on protected raptor species during the breeding season, the post-fledgling dispersal and spring and fall migration will be mitigated.

Additionally, in written and direct testimony the Applicant has indicated a great deal of faith in an internal corporate document, the Iberdrola Renewables Avian and Bat Protection Plan. Despite presenting this plan as evidence of a strong commitment to mitigation, the Applicant was resistant to making adherence to the Iberdrola plan a

condition of permitting. I recommend that this plan be made a condition of permitting.

## **SUMMARY**

Applicant should, at minimum, conduct a two-year post-construction mortality survey and should clearly articulate the thresholds to which those survey results will be applied.

Although the methods and assessment of bird populations by the proponent seem to be appropriate it is impossible to at this time to assess the effectiveness of their surveys when I am not in possession of 2010 and some 2009 data. When these data are all in hand I will be able to determine whether an adequate assessment has been made of breeding birds, bats, nocturnal passerine migrants and state and federal protected species.