

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

**In the matter of the
Application for Certification**

**Pursuant to RSA 162-H of
ANTRIM WIND ENERGY, LLC**

Docket No. 2012-01

POST HEARING MEMORANDUM OF COUNSEL FOR THE PUBLIC

Counsel for the Public, Peter C.L. Roth, by his attorneys, the Office of the Attorney General, hereby submits this post-hearing memorandum.

I. SUMMARY OF ARGUMENT

Counsel for the Public’s statutory mission is to ensure that only projects that can meet the appropriate balance of environmental impacts as weighed against the project’s energy benefits are approved. Counsel for the Public is independent of the Applicant, the Committee, and the intervenors. Counsel for the Public retained independent experts to evaluate the visual, noise and wildlife effects, as well as to conduct an assessment of the Applicant’s financial and managerial capability. Unfortunately, the evidence provided by the experts strongly suggests that the Applicant has not met its burden in these areas, and that the project may have unreasonable adverse effects on aesthetics, public health and safety, and the natural environment.

The Applicant proposes to construct the ten highest self supporting structures in New Hampshire and utilize unproven equipment to generate an uncertain, but certainly very modest amount of electrical energy. The balance of the project’s costs and benefits – simply on a dollars to dollars comparison – does not appear to meet the “appropriate balance”

standard of chapter 162-H.¹ Seen in context of what it is supposed to be doing, the environmental benefit of this project is miniscule.² As the evidence has shown, that environmental benefit appears far outweighed by the serious and permanent environmental harm that the project will cause.

There are key areas where it does not appear that the Applicant has met its burden. Those areas are discussed in detail below with record cites to support every factual assertion. With respect to visual impacts, the weight of the evidence shows that the project will have an unreasonable adverse effect on aesthetics that is not mitigated. Similarly, the weight of the evidence shows that the project will have an unreasonable adverse effect on public health and safety, and aesthetics, due to noise volumes that the scientific and lay testimony in this case shows will lead many people in the area to be annoyed or very annoyed, experience ill health effects, and may cause some to abandon their homes. Because the Applicant has not met its burden to show that the project will not cause grave harm to eagles, nighthawks and nearly endangered bat species, if a certificate is to be granted it must be conditioned in similar ways to those recently imposed in *Groton* and *Granite Reliable*. Finally, The Applicant has also not met its burden with respect to its financial, managerial and technical capability. Using the approaches followed by the Committee in *In re Laidlaw Berlin Biopower, LLC* and *In re Granite Reliable, LLC*, the applicant needed to show much more than it did to demonstrate that the project was economically viable – both in terms of raising capital and in terms of

¹ Exhibit IWAG-2, at 5 (testimony of Lisa Linowes) (table showing computation of \$76 million cost of above market electricity that will be borne by consumers for the energy produced by the project); Tr. Day 10, PM, at 106-108 (Ms. Linowes answering questions from Chairman Ignatius); Exhibit AWE-3, Appx. 14a, Gittell and Magnussen, *Economic Impact of the Proposed Antrim 30 MW Wind Power Project In Antrim New Hampshire*, Jan.. 2012, at 16 (total economic benefit of project estimated at \$55.7 million.)

² Tr. Day 6, PM, at 36-37 (Dr. High demonstrated that estimated offset of global CO2 emissions = .0002 percent).

showing the long term operational economics, and to show that those constructing and operating the project were identified and capable.

II. ARGUMENT.

A. The Applicant Has Not Met Its Burden To Show That The Project Will Not Have An Unreasonable Adverse Effect On Aesthetics Because Of The Project's Visual Impacts.

The Applicant bears the burden to show that the project “will not have an unreasonable adverse effect on aesthetics...” RSA 162-H: 16, IV, (c).

It is undisputed that the Applicant proposes to construct 10 turbines that are of a model that is “unproven”,³ that are not commercially installed and operating anywhere else in the world (thus the Applicant has no experience in constructing or operating them),⁴ and which, at nearly 500’ in height, will be by far the tallest free-standing structures in New Hampshire.⁵ According to the Applicant’s executive officer, Mr. Kenworthy, the turbine that the project will use is “the most intrusive machine commercially available in the 3 mw class.”⁶

Jean Vissering, a well qualified landscape architect with significant experience in conducting visual impacts assessments, and whose methodology and opinions were accepted

³ Tr. Day 2, AM, at 165-66, 207, 20 (Ms. Sally Wright, Senior Turbine Engineer for the Applicant); *see also id.* at 248-49 (comment by Attorney Iacopino: “...lets face it, nobody wants to be stuck with a turbine that’s never going to prove itself.”); Exhibit AWE-9, Appx . 10, at 5 (testimony of Mr. O’Neal) (“At the moment there are no Acciona 3 MW wind turbines with a 116 meter rotor diameter blades operational in the world.”)

⁴ Tr. Day 2, AM, at 182, *id* at 211-214; Exhibit AWE-14 (identifying all of the existing Acciona 3 mw turbines as located at Acciona facilities and either in prototype status or not yet constructed).

⁵ Exhibit NB-2, at 3 (Testimony of Richard Block); Tr. Day 11, PM, at 45-46.

⁶ Exhibit AWE-1, at 7 (Testimony of Jack Kenworthy).

by this body in the *Granite Reliable* case,⁷ testified that the proposed project *would* have an unreasonable adverse effect on aesthetics. After hours of cross examination and Committee and Counsel questioning there is no significant reason to question the accuracy or the weight of her opinion.

Ms. Vissering has over thirty years of experience in practicing and teaching landscape architecture.⁸ Her experience includes many different wind projects around New England and New York.⁹ She has prepared and published methodologies for review and planning of wind energy projects for the National Academies of Science, the U.S. Department of Energy, and the Vermont Public Service Board.¹⁰

In her testimony, Ms. Vissering determined that the project would, “as currently designed, have unreasonable adverse effects on the scenic quality and resources of the surrounding area.”¹¹ This conclusion was supported by a careful analysis set forth in her *Visual Impact Assessment Antrim Wind Project* report, dated July 30, 2012 (“Vissering Report”). Ms. Vissering’s work followed U.S. Forest Service Guidelines which are based on research into public preferences and how people perceive impacts on landscapes.¹² It is a defined methodology with basic criteria which eliminates personal and subjective opinion of the person making the assessment and allows the assessor to make a logical explanation of

⁷ See *In re Granite Reliable Power, LLC*, N.H. Site Eval. Comm., No. 2008-04, Decision Granting Certificate of Site and Facility With Conditions, dated July 15, 2009, at pp. 42-44 (discussing the weight of Ms. Vissering’s testimony) (“GRP Order”).

⁸ See Exhibit PC-1, Appx. B; Tr. Day 7, AM at 18-20.

⁹ Exhibit PC-1, Appx. B (resume listing over two full pages of work experience, including wind project such as Lowell Wind, Kibby, Georgia, Deerfield, Granite Reliable, & Reddington/Black Nubble); Tr. Day 7, AM at 19.

¹⁰ Exhibit PC-1, at 1 and Appx. B; Tr. Day 7, AM at 145-46; Exhibit AWE-34.

¹¹ Exhibit PC-1 at 2.

¹² Tr. Day 7, AM, at 67.

the assessment made.¹³ “They’re the same principles that, for eons, people” have used in landscape design.¹⁴

Ms. Vissering’s thoughtful and unbiased opinion is based upon the actual effects to be anticipated on the number of proximate and especially “visually sensitive”¹⁵ resources, including significantly, the Audubon Sanctuary which includes Willard Pond, Bald Mountain, and Goodhue Hill.¹⁶ The value of the resources in Antrim she ascertained from the Open Space Conservation Plan for Antrim and the Antrim Open Space Protection Priorities map.¹⁷ She also considered and assessed effects at Gregg Lake, Meadow Marsh Preserve, Pitcher Mountain, and Robb Reservoir.¹⁸ She did so because areas with long unobstructed views are rare, are the focal points of the landscape, are destinations for people, and are places where there has been an investment of time and money to protect them.¹⁹ For each effected place that she analyzed, her determination includes a discussion of the type of resource and the significance of the effects to the users.²⁰ In addition, there is a separate adverse effect that arises from the cumulative visibility of the project from sensitive resources: “When you have a lot of resources throughout the area, all of which has visibility

¹³ Tr. Day 7, AM, at 68, 76-77; Tr. Day 7, PM, at 82-85, 87-88, 89-90 (discussing methodology in response to questions by Attorney Iacopino).

¹⁴ Tr. Day 7, AM, at 68; Tr. Day 7, PM, at 67-70 (discussing ancient origins of principles and ways of seeing landscapes and general principles used in the field).

¹⁵ Tr. Day 7, AM, at 36, 59, 75-76; Tr. Day 7, PM, at 25, 35-37.

¹⁶ Exhibit PC 1, Vissering Report, at 4, 5-8.

¹⁷ Tr. Day 7, PM, at 15-17, 71; Exhibit ACC-2, Exh. A, *Open Space Conservation Plan*, dated Nov. 11, 2005; Exhibit AWE-17, Open Space Protection Priorities map.

¹⁸ Exhibit PC 1, Vissering Report, at 9-10, 14-15.

¹⁹ Tr. Day 7, AM, at 35; *see also* Tr. Day 7, AM at 122, 125, 126-27 (discussing importance of different types of recreational uses under cross examination by Attorney Geiger).

²⁰ Exhibit PC-1, Vissering Report, at 5-15; *see also* Tr. Day 7, AM, at 118-121 (explaining her methodology and its objectivity and distinguishing her methodology from that of Mr. Guariglia under cross examination by Attorney Geiger).

of the project – in other words, the majority or vast majority of the lakes and ponds in the region would have visibility of the project – that creates its own impact.”²¹

Her analysis of the impacts in summary is,

- Willard Pond – based on Mr. Guariglia’s vegetated view shed map, Ms.

Vissering found that all ten turbines would be visible from nearly everywhere on the pond from relatively close proximity, and that the adverse effect would be significant.²² She said

*“The impacts will be significant because of the existing condition which is entirely natural with no development currently visible from the pond. Because this is a wildlife sanctuary and Audubon Preserve, there is an expectation that one will experience a natural setting that will be different from settings such as Gregg Lake.”*²³

She observed that the Willard Pond area was quite popular and constituted a resource of regional significance.²⁴ It provides, she said, “a unique opportunity. A kind of unique setting that is increasingly rare.”²⁵ She concluded that the project would have an unreasonable adverse effect on aesthetics at Willard Pond.²⁶

- Bald Mountain – Vissering found that 8 out of ten turbines would have *significant* aesthetic effects on the now existing “spectacular view” from the open ledges on Bald Mountain.²⁷ The expectations of users would be effected

²¹ Tr. Day 7, PM, at 24, 34-37 (discussing numbers of ponds and lakes with adverse visual effects from the project).

²² Exhibit AWE-9, Appx. 4, Fig. JWG-20 (viewshed map).

²³ Exhibit PC-1, Vissering Report, at 5-6.

²⁴ Tr. Day 7, AM, at 65-66, 75.

²⁵ Tr. Day 7, PM, at 50.

²⁶ Tr. Day 7, AM, at 64.

²⁷ Exhibit PC-1, Vissering Report, at 6.

because of the vantage point's location within the Audubon Sanctuary. *"The proximity of the project will make it highly noticeable and prominent. The existing natural character of the views from the summit of Bald Mountain would result in a strong contrast with the existing condition."*²⁸

She also noted that Bald Mountain was preserved using Forest Legacy money and because of that, its importance to the region and the State is enhanced.²⁹

- Goodhue Hill—Vissering noted that the project "would occupy nearly the entire view in [that] direction at a distance of 2 – 3.2 miles away ... [of the] primary summit opening...."³⁰ She found that the project's appearance from Goodhue hill would be "very prominent" and it would have a moderate to significant adverse effect.
- The Audubon Sanctuary—because of the effects on Willard Pond, Bald Mountain and Goodhue Hill, Ms. Vissering determined that the project will have an unreasonable adverse effect on the Audubon Sanctuary as a whole.³¹ The Audubon Sanctuary has significant portions acquired through the Forest Legacy program, for which state and federal funding is provided, and which contributed to Ms. Vissering's conclusion that the property has regional and statewide significance.³²

²⁸ Exhibit PC-1, Vissering Report, at 6. As Mr. James noted, "People don't take hikes in industrial parks." Tr. Day 8, AM, at 144.

²⁹ Tr. Day 7, PM, at 40-41.

³⁰ Exhibit PC-1, Vissering Report, at 8.

³¹ Tr. Day 7, AM, at 64.

³² Tr. Day 7, PM, at 41; *see* Tr. Day 9, AM, at 68-69 (Ms. Von Mertens); Tr. Day 9, AM, at 157-160 (describing the Audubon Sanctuary as having state and regional significance and funded by state and federal money). In addition, Willard Pond is stocked with trout by the Fish & Game Department, Tr. Day

- Gregg Lake—The adverse effect on the lake would be moderate to significant.³³ Vissering observed that the lake is a “popular town focal point.” The Tuttle Willard ridgeline is a dominant element above the lake.³⁴ All ten turbines and the met tower would be visible from the lake and especially out of proportion because of the comparatively low elevation of the ridge; the turbines will overwhelm the relatively low ridge.³⁵ She concluded, “*the turbines will be a very dominant visual element from the vantage point of the picnic area, the lake itself, and from portions of Gregg Lake Road.*”³⁶
- Other Locations – Ms. Vissering determined that the project would have moderate adverse effects on other nearby scenic resources such as Meadow Marsh, Pitcher Mountain, Franklin Pierce Lake, and Robb Reservoir.³⁷ She noted that the views from Pitcher Mountain when combined with the views from the same vantage point of the Lempster project would be impaired and contributed to her conclusion that the project would have an unreasonable adverse effect on the scenic quality of the area.³⁸ Ms. Vissering also agreed that the Quabbin-to-Cartigan Initiative, in the midst of which the project

9, PM, at 75, further evidence that Willard Pond is a state sponsored recreational resource. Willard Pond is also a great pond, and therefore owned by the State. Tr. Day 5, PM, at 158; Tr. Day 7, AM, at 66.

³³ Exhibit PC-1, Vissering Report, at 9.

³⁴ Exhibit PC-1, Vissering Report, at 9.

³⁵ Tr. Day 7, AM, at 49.

³⁶ Exhibit PC-1, Vissering Report, at 9. The Tuttle Willard ridgeline is a dominant part of the local landscape. Tr. Day 7, AM, at 78-79.

³⁷ Exhibit PC-1, Vissering Report, at 10-14; *see also* Tr. Day 8, PM, at 145 (Mr. Jones testifying that Robb Reservoir in Stoddard had particular scenic quality and was a nearly \$4 million Forest Legacy project.)

³⁸ Exhibit PC-1, Vissering Report, at 10; Tr. Day 7, AM, at 44-45, 132; *see also* Tr. Day 8, PM, at 148 (Mr. Jones testifying that eastern sunrise views from Pitcher Mountain will be dominated by the project which “will stick out like a sore thumb”).

would be sited, was a state wide resource: “that should be considered a statewide ... project.”³⁹

Ms Vissering was retained to provide an “independent assessment” of the visual effects of the project.⁴⁰ As she said during cross examination, she “was not asked to take any position” and instead “was asked to take a look at the project and to come up with [her] own opinion as to what the impacts would be.”⁴¹ Prior to being employed by Counsel for the Public, Ms. Vissering had not formed any opinion about the adverse effects of the project. Ms. Vissering testified under cross examination from the Applicant’s counsel, that she, “honestly did not have any idea where I was going to come out on this when I was asked to look specifically at an evaluation of this project.”⁴² Significantly, Counsel for the Public retained Ms. Vissering because of her previous experience with *Granite Reliable* and the impressions he made observing the quality of her work during that case. Counsel for the Public was not aware of her previous work with the Antrim Planning Board until after he had begun discussions to retain her. Like the Antrim Planning Board, however, Counsel for the Public is not a party with an interest at stake seeking to block this project; his role is to “protect the quality of the environment and in seeking to assure an adequate supply of energy.” RSA 162-H:9, I. Working consistently with Counsel for the Public’s statutory mission and in establishing a working relationship with Ms. Vissering, her independence in

³⁹ Tr, Day 7, AM, at 66; Tr. Day 7, PM, at 33-34. Other witnesses agreed. See Tr. Day 9, AM, at 143-45 (Mr. Brown from Audubon).

⁴⁰ Exhibit PC-1, (testimony) at 1.

⁴¹ Tr. Day 7, AM, at 91.

⁴² Tr. Day 7, AM, at 96.

the review was necessary and evident. Thus, the implication of bias that the Applicant attempted to raise is unfounded and mistaken.⁴³

Similarly, the attempt by the Applicant to “impeach” Ms. Vissering’s testimony with the conclusion she reached in *Granite Reliable* was also unavailing. The impeachment attempted was by means of so-called “prior inconsistent statements.”⁴⁴ The Applicant, however, sought to cherry-pick the 1 page conclusion from the substantial record of *Granite Reliable*, over the objections of Counsel for the Public, and after the Chair had concluded that her report in *Granite Reliable* was not relevant to the Committee’s consideration when offered on direct.⁴⁵ The unfairness of this double-standard is manifest. For the Committee to draw negative inferences from a single page of the conclusion of a lengthy analysis of a much different project in a much different setting, while not considering the method and analysis of that conclusion cannot be condoned as a matter of basic fairness.

Moreover, it was clear enough, given the differences of the two projects and their settings, that there was nothing inconsistent about Ms. Vissering’s testimony in the two cases.⁴⁶ Ms. Vissering explained in this record,

...that was something I mentioned but it was definitely not the reason I made in my decision.

...if you read my Granite Reliable report, you will see that ... the reasons I came to the conclusions I did was not because the project was visible from certain areas, but how they were seen and the nature of the resource involved.⁴⁷

⁴³ Tr. Day 7, AM, at 93-97.

⁴⁴ Tr. Day 7, AM, at 103-14.

⁴⁵ Tr. Day 7, AM, at 103-14.

⁴⁶ Tr. Day 7, AM, at 105.

⁴⁷ Tr. Day 7, AM, at 105.

While the rules of evidence are not required in these cases, fundamental fairness is not thrown out with the bathwater. Before reaching a conclusion of impeachment, fairness would dictate that the Committee consider the entirety of Ms. Vissering's *Granite Reliable* Visual Impacts Assessment report and her considerable testimony on the witness stand.⁴⁸ In her appearance in *Granite Reliable*, Ms. Vissering made it very clear that her conclusion was based on both the *absence of any* visibility of the project at *particularly sensitive* viewpoints but more significantly, using the same methodology and analysis she employed here, a finding that the effects on resources where there was visibility would not be significant. Thus, contrary to the implication attempted by the Applicant, her conclusion in *Granite Reliable* of 'no significant effect,' was not at odds with her conclusion here because the analysis is the same but the projects and settings are very different.

Importantly, moreover, Ms. Vissering's methodology is also very similar to that which was employed in *In re Groton Wind, LLC* by its applicant and found persuasive by the SEC.⁴⁹ In *Groton*, the applicant presented narrative analyses of viewpoints as part of a comprehensive "Project Visual Impact" section in the Groton VIA Report.⁵⁰ Project visibility was step one of this methodology, as was that employed by Ms. Vissering here.⁵¹ As Ms. Vissering did in this case and in *Granite Reliable*, the *Groton* study then provided

⁴⁸ See *In re Granite Reliable Power LLC*, N.H. Site Eval. Comm., No. 2008-04: Testimony of Jean Vissering, dated July 2008 at 5-6 (<http://www.nhsec.nh.gov/2008-04/documents/jean.pdf>); Visual Impacts Assessment, dated Jan. 4, 2008, at 42-45 (discussing impacts to various viewpoints) ("GRP VIA") (http://www.nhsec.nh.gov/2008-04/documents/app_appendix_11.pdf); Transcript, March 10, 2009 at 142-94.

⁴⁹ See *In re Groton Wind LLC*, N.H. Site Eval. Comm., No. 2010-01, Decision Granting Certificate of Site and Facility, dated May 6, 2011 at 49 (accepting the conclusions of the applicant's Visual Impacts Assessment over the objections of other parties) ("Groton Decision"); Visual Impacts Assessment, dated December 2009 at 66-102 (providing detailed assessment narratives for a number of selected viewpoints) ("Groton VIA Report") (<http://www.nhsec.nh.gov/2010-01/documents/100326app24.pdf>).

⁵⁰ Groton VIA Report, at 43-48, 66-102.

⁵¹ Compare Vissering Report, at 3-5 with Groton VIA Report at 50-66.

analysis of the adverse effects of the proposed projects on the uses of the resources at the eleven selected views.⁵² Her approach “went to the heart of the question here about the level of impact.”⁵³

In contrast, Mr. Guariglia performed only a bare visibility study, not a visual impacts analysis.⁵⁴ He only performed step one. A visibility study primarily looks at quantifying the places where the turbines are visible whereas the impacts analysis is a “detailed look at what are the resources, how they will be affected specifically.”⁵⁵ Mr. Guariglia’s report was a collection of data points without analysis.⁵⁶ He “analyzed the visibility ... so that way the siting committee can make a determination of impact.”⁵⁷ “We didn’t study the visual impact [on Willard Pond] ... we did no impact ratings.”⁵⁸ An impact assessment, such as the one Ms. Vissering prepared, “goes into far greater detail and provides the rationale for making a decision.”⁵⁹ This type of analysis was absent from Mr. Guariglia’s work which relied almost exclusively in a computer modeled percentage of visibility computation and a bare-bones table of data points with no logic or rationale explained. The type of use of a resource was simply categorized – sometimes incorrectly—as either moving or stationary.⁶⁰ Even his presentation of photosimulations lacks any meaningful and logical analysis supporting his

⁵² See, e.g., Groton VIA Report, at 68, 71, 74, 77, 80, 83, 86, 89, 92, 95, and 98.

⁵³ Tr. Day 6, PM, at 162 (Dr. Kimball).

⁵⁴ Testimony of John W. Guariglia, dated January 13, 2012, at 5 (indicating methodology was “visibility evaluation”); Tr. Day 7, AM, at 57-59. Oddly, Guariglia argued against Ms. Vissering’s conclusions based on the methodology that he did not himself use in this case. See Tr. Day 5, PM, at 9; Tr. Day 7, PM at 105.

⁵⁵ Tr. Day 7, AM, at 58.

⁵⁶ Tr. Day 7, AM, at 129-30 (Ms. Vissering “[Guariglia’s work] provides a data point, it doesn’t provide an analysis . . . And, there’s a difference.”)

⁵⁷ Tr. Day 5, PM, at 24, 34.

⁵⁸ Tr. Day 5, PM, at 30, 32, 119-120, 125.

⁵⁹ Tr. Day 7, AM, at 58.

⁶⁰ Tr. Day 5, PM, at 37-38.

conclusions.⁶¹ This is not the quality of work and depth of analysis that has previously informed this Committee's decision making in this area.⁶²

Mr. Guariglia's defense of his testimony lacked credibility and at times strained credulity. A few examples:

- The actual analysis of particular resources was "part of our desktop analysis" but was not explained either in his report or in his testimony.⁶³ He derided and dismissed certain recreational users as "tree hugging and chestnut roasting and stuff like that" but admits he gave no thought to the uses hikers, bird watchers, kayakers, snowmobilers, and other recreational users might make of the resources.⁶⁴
- Mr. Guariglia concluded that if the resource was not owned or preserved by a governmental entity it would not rank for visual sensitivity because it lacked statewide significance.⁶⁵ He admitted that if the users of the Antrim resources were not in a state park he gave no weight to their use of the resources and how it might be affected by the project.⁶⁶ "Community-type resources" seem to merit but little consideration or protection.⁶⁷ In like manner he evaded a question asking whether the characteristics of the

⁶¹ See Exhibit AWE-3, Appx. 9A, Saratoga Assocs., Visual Impacts Analysis, dated January 9, 2012, at 22 (Simulation summary giving only nonspecific generic summary of the photosimulations in 8 lines of text) ("Saratoga Report"). See *contra* Vissering Report, at 5-15 (presenting photos and simulations and describing impacts).

⁶² See GRP VIA, at Appendix D and E (presenting simulations and discussing impacts); Groton VIA Report, at 66-100 (presenting photos, simulations and analysis of each).

⁶³ Tr. Day 5, PM, at 134-35.

⁶⁴ Tr. Day 5, PM, at 136.

⁶⁵ Tr. Day 5, PM, at 51-52; Exhibit AWE-9, Appx. 4 at 14-15.

⁶⁶ Tr. Day 5, PM, at 137.

⁶⁷ Tr. Day 5, PM, at 67.

Audubon Sanctuary resembled those of a state park, saying, “I can’t answer that.”⁶⁸ Q: is it possible for a resource owned by a conservation organization or even private property to have statewide significance? A: not that I have ever come across.”⁶⁹ As noted by Dr. Boisvert, “that position is untenable.”⁷⁰

- At the same time, Mr. Guariglia appeared to be unaware that significant parts of the Audubon Sanctuary were acquired through the Forest Legacy program and funded by the state and federal governments.⁷¹ One of the key easements is in fact held by the State of New Hampshire Department of Resources and Economic Development.⁷² Further, there is no evidence that he considered that the project would be sited in the Quabbin to Cardigan Initiative, also a regionally significant resource that would be affected by the project.⁷³
- He had no information about wintertime activities at Willard Pond and yet concluded there was no wintertime activity at Willard Pond, he suggested no one would hike Bald Mountain or Goodhue Hill in winter because “there’s a severe safety issue,” doubted that anyone might cross country ski at night, and argued that ice fishermen would not be bothered because “numbers would be limited. They have huts. They wouldn’t be seeing the project

⁶⁸ Tr. Day 5, PM, at 129.

⁶⁹ Tr. Day 5, PM, at 139; *see id* at 141-42.

⁷⁰ Tr. Day 5, PM, at 166.

⁷¹ Tr. Day 5, PM, at 173-74 (demonstrating a lack of familiarity with the program and stating “I don’t remember seeing that come across.”)

⁷² Tr. Day 9, AM, at 85 (Mr. Brown).

⁷³ *See* Tr. Day 9, AM, at 143-44 (Mr. Brown); Tr. Day 7, PM, at 33-34 (Ms. Vissering).

anyway.”⁷⁴ Yet, the evidence of wintertime and night-time use of the trails and the pond is quite clear.⁷⁵ Mr. Guariglia also appeared unaware that Willard Pond is a Great Pond and the significance of that as a State resource.⁷⁶

- Despite claiming that his quantitative method avoids subjectivity, Mr. Guariglia’s own, sometimes idiosyncratic opinions about the expectations of users often found their way into his testimony.⁷⁷
- He concluded that seeing wind farms in two directions from the top of Pitcher Mountain would not have a cumulative visual impact.⁷⁸
- His argument suggests that a windfarm in any small town in New Hampshire, so long as it did not over-shadow a state park, should be acceptable – lightly populated, heavily forested and lacking local or state laws to protect particular scenic resources.⁷⁹
- Mr. Guariglia made clear that it really did not matter what might visually happen beyond the Audubon Sanctuary, if the Sanctuary land itself was not physically changed.⁸⁰

⁷⁴ Tr. Day 5, PM, at 41-43.

⁷⁵ Tr. Day 9, AM, at 83-84 (Mr. Brown).

⁷⁶ Tr. Day 5, PM, at 52, lines 9-18: “Q: are you aware that Willard Pond is a Great Lake owned by the State? A: For fishing, yes, Q: That the pond is owned by the State?, A: Yes, for fishing, yes.”

⁷⁷ See, e.g., Tr. Day 5, PM, at 177-79 (Gregg Lake beach users); Tr. Day 5, PM, at 41-43 (Willard Pond & Bald Mountain); Tr. Day 5, PM, at 36-37 (“Well, having cross-country skied before, wind turbines would not affect me personally ... I don’t think seeing turbines would make somebody not cross-country on a frozen pond.”); Tr. Day 5, PM, at 196 (suggesting that sunbathers would not be bothered by shadowflicker because “I doubt folks would be out...”).

⁷⁸ Tr. Day 5, PM, at 57.

⁷⁹ Tr. Day 5, PM, at 132-33, 164-65.

⁸⁰ Tr. Day 5, PM, at 21, 22.

- Finally, he opined that using his visibility approach a project could never be determined to have an unreasonable effect because of its visual impacts at one particular place no matter how imposing.⁸¹

In sum, Mr. Guariglia's approach, in comparison to that employed by Ms. Vissering and those accepted by the SEC in *Groton* and *Granite Reliable*, is incomplete and unreliable. It oversimplifies the analysis and provides a means by which nearly any project in any small town in New Hampshire would pass without creating an unreasonable aesthetic effect. He accomplishes this by a series of "untenable" methodological limitations and qualifiers, which by themselves enable a subjective valuation of the visual effects of a project. He inescapably inserts his own experience and value judgments about particular uses of the resources which taint his claim of objectivity. Most importantly, his testimony lacks any logical analysis of the data he collected to reach his conclusions. As a result, Mr. Guariglia did not provide sufficient evidence to demonstrate that the project would not result in unreasonable adverse effects on aesthetics.

Ms. Vissering did not conclude that no project could be built in Antrim without an unreasonable aesthetic effect. Ms. Vissering was asked whether it would be a good thing if the project was not to be built.⁸² In response she said,

...it is somewhat unfortunate that...there were some big red flags there from the outset. I don't know if anybody ever said this to the developer. But if you compare this project to Lempster, they are night and day. Lempster is hardly visible from anywhere. It's the perfect project. Here we are, five miles to ten miles away, and this is a very different setting. So ... what I feel sad about is that had there been some kind of state agency that could look at this and say 'Look you've got some really red flags here.' 'You might want to think about a different kind of project here because a lot of time and money goes into the

⁸¹ Tr. Day 5, PM, at 202.

⁸² Tr. Day 7, PM, at 63.

planning for these projects.’ And anybody could have looked at this. I don’t think what I’m saying is quite shocking – exactly shocking. Looking at this compared to some other projects, it is – you’ve got a lot of public resources.

...this is something that it would be nice to start that discussion a little bit earlier in the process to get a project that is appropriately scaled to the site. And I think that’s really important to do, because you’re going to be -- well, there will be many more of these projects, and I think it’s important to get them right. Because when you get them wrong, that’s when the public is -- the wind energy doesn’t fly....

The basic answer is: This needs mitigation. And I’m sort of guessing that the changes can be made. But it would have been easier for them to have been made earlier in the process.⁸³

She suggested a comprehensive and meaningful mitigation program that would require significant changes to the proposed project, including eliminating the two turbines closest to Willard Pond (appearing on the left side of her simulations), which owing to their proximity would appear the largest from the Sanctuary, and reducing the size of all of the others. The Applicant’s Harris Center Agreement ‘mitigation’ she determined was inadequate, however, because it is too small and it allows development to occur within it.⁸⁴ She termed the offering in the Harris Center Agreement “paltry” in comparison to the scale and to other projects such as Lowell, Vermont.⁸⁵ Similarly, the Sub-Committee should look to the mitigation approved in *Granite Reliable* for perspective.⁸⁶

The testimony of the Audubon witnesses on the visual effects was also very compelling. One of the primary reasons that Audubon intervened in the proceeding was the

⁸³ Tr. Day 7, PM at 65-66.

⁸⁴ Tr. Day 7, AM, at 49-53; Tr. Day 7, PM at 14-15. *See also* Tr. Day 9, AM, at 142 (Ms. Von Mertens) (Forever Wild easements serve aesthetic purposes by preventing, as would be allowed in this case, the construction of houses along or near the ridgeline.)

⁸⁵ Tr. Day 7, AM, at 54; Tr. Day 7, PM, at 93-96 (concerns about the easements both qualitative and quantitative.)

⁸⁶ Tr. Day 9, AM, at 48-50 (discussing permanent easements in *GRP* case) & 56-57 (Dr. Foss identifying aspects of ‘forever wild’ easements as were established in *GRP*); GRP Order, at 19-21 (describing extent of exclusive and permanent conservation easements.)

concern for the visual effects of the project on the scenic resources of the Audubon Sanctuary.⁸⁷ Willard Pond was described credibly as providing “a pristine experience that draws people to [it], including water quality, fishing, visual, etc.”⁸⁸ The presence of the project would “limit visitation to the pond and the sanctuary.”⁸⁹ Mr. Brown testified that he believed fishermen who use Willard Pond for fishing for state-stocked and native trout were truthful when they told him that “the proposed wind facility would negatively affect their fishing experience” at Willard Pond.⁹⁰ Audubon also felt that the project would have a negative effect upon the Quabbin to Cardigan Initiative.⁹¹ Audubon’s sense that the project constituted a “contradiction” to and would be “inconsistent” with the aesthetics of the ridge and the Sanctuary was very definite and consistent with its official policy.⁹² The project was emphatically described as fundamentally incompatible.⁹³ Mr. Nickerson said,

... the focus is strictly on aesthetics. But let’s keep in mind the fact that we’re carving up the ridgelines, fragmenting the forest. We may kill migratory birds and bats. And those things are all issues for Audubon as well. So I’ll take the hard line. I think they’re incompatible under any circumstance.⁹⁴

⁸⁷ Tr. Day 9, AM, at 106 (Mr. Nickerson).

⁸⁸ Tr. Day 9, AM, at 77-78 (Ms. Von Mertens).

⁸⁹ Tr. Day 9, AM, at 82 (Mr. Brown).

⁹⁰ Tr. Day 9, AM, at 76 (Mr. Brown).

⁹¹ Tr. Day 9, AM, at 145 (Mr. Brown responding to questions from Dir Simpkins).

⁹² Tr. Day 9, AM, at 148 (Ms. Von Mertens answering question from Dr. Boisvert); Tr. Day 9, AM, at 165-66 (Mr. Nickerson responding to questions from Mr. Dupee); Tr. Day 9, AM, at 167 (Mr. Brown: “I personally feel that they’re aesthetically incompatible.”); *see* Exhibit ASNH-32, at 1 & 3 (N.H. Audubon Policy on Wind Energy Projects (approved 1/24/2012) (“New Hampshire’s hill and mountain topography [is] relatively unsuitable for the development of significant wind power facilities” and referring to proximity of any given project to wildlife sanctuaries and management areas as among environmental criteria for evaluating particular projects.)

⁹³ Tr. Day 9, AM, at 168-71.

⁹⁴ Tr. Day 9, AM, at 170.

Audubon witnesses testified that an additional problem with the proposed easements is that they fragmented the habitat, which while not a visual effects issue per se, it goes directly to the adequacy of the proposed ‘mitigation’ as a whole.⁹⁵

Other witnesses and intervenors provided compelling testimony entitled to substantial weight on the aesthetic impacts of the project. While the experts focused their attention on the aesthetic impacts to public resources, RSA 162-H:16, IV makes no such distinction. It says,

The site evaluation committee, after having considered available alternatives and fully reviewed the environmental impact of the site or route, and other relevant factors bearing on whether the objectives of this chapter would be best served by the issuance of the certificate, must find that the site and facility:

(a) Applicant has adequate financial, technical, and managerial capability to assure construction and operation of the facility in continuing compliance with the terms and conditions of the certificate.

(b) Will not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal and regional planning commissions and municipal governing bodies.

(c) Will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety.

In determining whether individual adverse effects on aesthetics of private property should be considered under RSA 162-H:16, the Committee should “look first to the statutory language itself ... and construe the law in a manner consistent with its plain meaning.”⁹⁶

⁹⁵ Tr. Day 9, AM, at 70-71, 139-40. See also Tr. Day 7, PM, at 33-34 (Ms. Vissering noting that unfragmented conservation land has aesthetic value); Tr. Day 7, AM, at 42-43, Tr. Day 7, PM, at 75-76 (discussing visual impacts caused by road clearing).

⁹⁶ *Town of Tilton (and Town of Northfield) v. State of New Hampshire*, 137 N.H. 463, 465 (1993).

When a statute is clear on its face, its meaning is not subject to modification.⁹⁷ In so doing, the Committee should “neither consider what the legislature might have said nor add words that it did not see fit to include.”⁹⁸ The “goal is to apply statutes in light of the legislature’s intent in enacting them, and in light of the policy sought to be advanced by the entire statutory scheme.”⁹⁹ In this case the plain meaning of RSA 162-H:16, IV, (c), does not limit its application to resources of state wide significance, as Mr. Guariglia argued, or even to just public resources. In order to apply it that limited way, the Committee would need, in essence, to insert limiting language that the legislature did not see fit to add.

In addition, looking at the statute as a whole it should be liberally construed because of its “important and beneficial public objects” and purposes.¹⁰⁰ Determining that only visual impacts that harm public resources ought to be considered is inconsistent with the broad public protections that the statute is intended to provide and inconsistent with the plain meaning of RSA 162-H:16, IV, (c). It would also be inconsistent with the general policies of the chapter requiring that “all environmental” issues be resolved to protect against the “significant impact upon the welfare of the population” that energy facilities might have to exclude the vast majority of the effects such a facility might have.¹⁰¹ Nowhere does the statute restrict the review of aesthetic impacts to public as opposed to private resources. Instead, its language is expansive, inclusive and broad.

⁹⁷ *New Hampshire Dept. of Envtl. Serv. v. Marino*, 155 N.H. 709, 713 (2007).

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Barney v. Leeds*, 51 N.H. 253, 276 (1871) (“Such a statute, it is universally held, is to be liberally construed, and that everything is done in advancement of the remedy that can be given consistently with any construction that can be put upon it. ...’In construing a remedial statute which has as its end the promotion of important and beneficial public objects, a large construction is to be given when it can be done without doing violence to its terms.’”)

¹⁰¹ RSA 162-H:1, I & II.

Ms. Longgood testified that

Four of the proposed turbines are closer than a mile to my home ... The back of my land will be unusable due to the close proximity of the turbines. My property and my home will be surrounded by the largest turbines in New England thus forever changing the nature of my land, my home and my rural lifestyle.

I am concerned about the visual impact that this project will have on my home.¹⁰²

Ms. Longgood noted that her house and garden were oriented to the scenic beauty of the ridge,

My home is oriented to look out over ... the ridge, all of the large windows, the deck, the orchards, and the hot tub are looking out into the woods. [The windows] are mostly facing the east, facing the ridge, looking out over the beaver pond.¹⁰³

She testified that she expected to see much of a number of the turbines proposed based on the visibility of the Applicant's currently installed 200' met tower.¹⁰⁴ Clearly, the project will have a significant adverse effect on the aesthetics of Ms. Longgood's property and her use and enjoyment of it. To the extent it would deprive her of the use and enjoyment of her property and its beauty, those effects are unreasonable.

Richard Block testified that "at least five of the proposed wind turbines will dominate the view from our living room and kitchen windows."¹⁰⁵ He said, "if I sit on my couch in my living room and look out, I've got an 8-foot picture window, and the view is Tuttle Hill. My

¹⁰² Exhibit Abutters -2.

¹⁰³ Tr. Day 9, PM, at 19.

¹⁰⁴ Tr. Day 9, PM, at 21; *see also* Tr. Day 11, AM, at 43-44 (Mr. Block: pointing out that if one can see the 200 ft. tall met tower "it'll be a lot easier to see the 500 foot turbine that would be in place of that"); Exhibit AWE-38-A (project map showing turbines 1-5 in proximity to the met tower and with relatively unblocked view toward Ms. Longgood's property west of the met tower).

¹⁰⁵ Exhibit NB-1, at 1 (Testimony of Richard Block, dated July 31, 2012).

estimate is that the turbines I see above would pretty much fill the window.”¹⁰⁶ As to the proportionality of the project turbines to the size of the hill, Mr. Block was emphatic, he said “I believe 400-foot turbines are way out proportion for that hill; 500-foot turbines, to me, enter the realm of absurdity.”¹⁰⁷ As Ms. Block said, “Its just a very big turbine for a very small hill.”¹⁰⁸ Based on her considerable experience as a visual artist specializing in landscapes, Ms. Block opined that the “giant scale of the turbines produces a distorted sense of perspective that creates total disorientation for the viewer.”¹⁰⁹ Her testimony on this point was not challenged or refuted by any other party or the Committee.¹¹⁰ Similarly, Ms. Block made the case that the view of the imposing project from several key rooms of their home created a *privacy* issue for them and said,

It is abundantly clear to me that the visual impact of ten monstrous turbines would totally destroy the *sanctity of our home*. We would see these turbines from our kitchen, living room, and sleeping quarters. Since we depend on passive solar heating, we have ten foot sliding glass doors on the kitchen and an eight foot window in our living room. We now see no other homes or lights from our property and although we have let some trees grow in our viewshed to block the potential possibility of a house built on Tuttle Hill, we can certainly never block the view of 500-foot turbines nor flashing red lights. Combining the visuals with the sound impact, the result would simply be intolerable for us.¹¹¹

Finally, Mr. Block testified that the impacts on his property, including significant aesthetic impacts, would force him and his family to leave their home in Antrim.¹¹² Mr. Block also demonstrated through visual simulation that five or six of the turbines would be

¹⁰⁶ Tr. Day 11, AM, at 47.

¹⁰⁷ Tr. Day 11, AM, at 48.

¹⁰⁸ Tr. Day 11, AM, at 49.

¹⁰⁹ Exhibit NB-3, at 7-8 (Testimony of Loran Block, dated July 31, 2012.)

¹¹⁰ Tr. Day 11, PM, at 26-80 (cross examination by Applicant’s counsel and Committee); Exhibit AWE-9, Appx. 4 (no rebuttal from Mr. Guariglia).

¹¹¹ Exhibit NB-3, at 11 (Ms. Block).

¹¹² Exhibit-NB-1, at 9; Tr. Day 11, AM, at 59-61.

prominently seen from The Blueberry Field. Mr. Guariglia agreed that the location would have turbines visible, but because he had not done the analysis or field checking could not disagree with Mr. Block's testimony.¹¹³

The imposition of half of the project's turbines into the Block's home, and the possibility that it would cause them to abandon their home, demonstrates that the adverse effects on the Blocks' property are unreasonable.

Mr. Cleland and Ms. Law also testified that their "main concern" was that the project was less than 1.5 miles from their home "directly in [their] view shed."¹¹⁴ Ms. Law and Mr. Cleland also expressed deep concerns that the view of the turbines from their home would impair its value and even its marketability.¹¹⁵ Ms. Law stated that she believed that she would lose "about 25% of the value" of her property.¹¹⁶ Ms. Law's specific, credible, and legally competent testimony on the expected loss of value was not refuted.¹¹⁷ An uncompensated 25% loss in market value of the Cleland Law home caused by the adverse effects on the aesthetics of that property by the project is unreasonable.

In addition, many people provided letters to the Sub-Committee voicing sometimes poignant concerns about the "irreparable devastation" the project would have on Antrim's

¹¹³ Exhibit NB-7, Tr. Day 5, at 10-12, 98-99.

¹¹⁴ Exhibit Abutters-1, at 2; Tr. Day 8, AM, at 57.

¹¹⁵ Exhibit Abutters-1, at 5; Tr. Day 8, AM, at 57, 62.

¹¹⁶ Tr. Day 8, AM, at 64.

¹¹⁷ Tr. Day 8, AM, at 63-64. *See* Tr. Day 8, AM, at 64-76 (cross examination by Attorney Goldwasser with no questions asked of panel about expected property value loss.), at 76-84 (Committee questions with none asked about expected property value loss). Mr. Magnussen's tenuous statistical analysis of a very limited number of sales in Lempster is not to the contrary. In that analysis he made no specific valuations or predictions about any particular property in Antrim. *See also Roy v. State*, 104 N.H. 513 (1963) (court may consider owner's opinion of value of their own property.)

scenic quality.¹¹⁸ Other letter writers voiced generalized support for the project but *none* of them suggested that the project would *not* have an impact on the aesthetic quality of resources and properties in Antrim.

There is ample precedent for denying an application due to visual impacts.¹¹⁹ On November 9, 2012, the Maine Department of Environmental Protection denied a site location permit for a wind project on Passadumkeag Mountain, in Grand Falls Township, Maine.

¹¹⁸ Letter of Peter Moore, Antrim, NH, dated Sept. 14, 2012; *see also* Letter of Peter Martel, Bennington, NH, dated Jan. 3, 2013; Letter of Brenda, Mark & Nathan Schafer, Antrim, NH, dated Dec. 4, 2012; Letter of Town of Deering Planning Board, Deering, NH, dated Nov. 9, 2012; Letter of Dr. Fred Ward, Stoddard, NH, dated Nov. 8, 2012; Letter of Stoddard Cons'n Comm., Stoddard, NH, dated Oct. 20, 2012; Letter of Stoddard Board of Selectmen, Stoddard, NH, dated Oct. 5, 2012; Letter of Corazzinin Family, Antrim, NH, dated June 4, 2012; Letter of Michael Faber, Antrim, NH, dated May 2, 2012 (all voicing serious concerns about the visual impacts the project would have on public and private properties in Antrim).

¹¹⁹ *See, e.g.,*

- *In re Passadumkeag Wind Park LLC*, Me. Dept. of Env'tl. Protect., No. L 25597-24-A-N, Findings of Fact and Order, dated Nov. 8, 2012, at 24-27, 43-45 (denying permit because of "unreasonable adverse effect on the scenic character and existing use related to scenic character of" Saponac Pond) ([http://www.maine.gov/dep/ftp/WindPowerProjectFiles/Passadumkeag/Interested_Parties_Information/Friday%2011-9-12/Passadumkeag%20Denial%20L25597ANBN\(2\).pdf](http://www.maine.gov/dep/ftp/WindPowerProjectFiles/Passadumkeag/Interested_Parties_Information/Friday%2011-9-12/Passadumkeag%20Denial%20L25597ANBN(2).pdf));
- *In re Development Permit DP 4889 (Champlain Wind, LLC – Bowers Wind Project)*, Me. Land Use Regulation Comm'n, Findings of Fact and Decision, dated April 20, 2012, at 25 (denying application because "views from [9 lakes in the Downeast lakes region] will be significantly compromised by [the project] such that the development would have an unreasonable adverse effect on the scenic character and existing uses related to scenic character." LURC found that the adverse effect was unreasonable due to turbine number, extent of turbine visibility, turbine proximity to the resources, the nature of the views as users travel through the affected lakes, the scenic significance of the lakes, and the evidence showing the scenic impacts will have an adverse impact on uses related to the lakes.) (http://www.maine.gov/doc/lupc/projects/windpower/firstwind/champlain_bowers/Development/Decision/CW_4889_Denial_April_2012_FINAL.pdf);
- *In re Maine Mountain Power, LLC for Zoning Petition 702 (Reddington Black Nubble)*, Me. Land Use Regulation Comm'n, Decision, dated March 5, 2008, at 67-68 (crediting visual impact analysis by Ms. Vissering and denying the application because the visual impact of the project would have undue adverse impacts on scenic resources). (http://www.maine.gov/doc/lupc/projects/windpower/redington/zp702_MMP_Black%20Nubble_Denial_FINAL.doc);
- *In re Liberty Gap Wind Force, LLC*, W. Va. Public Serv. Comm'n, No. 05-1740-E-CS, Order, dated June 22, 2007, at 21-23, 36-40, 50-58 (denying siting application because insufficient information submitted to meet burden on visual impacts to scenic vistas) (<http://www.psc.state.wv.us/scripts/WebDocket/ViewDocument.cfm?CaseActivityID=214782>);

One of the key reasons for the denial was the visual impacts of the project on Saponac Pond a pristine pond used by boaters and fishermen. Many of the same reasons and much of the same analysis that we confront here were explored in the Saponac Pond situation. In another recent Maine order, *In re Champlain Wind*, the LURC denied a project's application because of the adverse visual effects it would have on a number of remote and lightly used pristine lakes. In a 2008 Maine decision, LURC followed Ms. Vissering's analysis and denied the *Reddington/Black Nubble* project because of the adverse visual effects it would cause to outdoor recreational and scenic resources, including the Appalachian Trail. In West Virginia, the Public Service Commission denied a site permit for a wind farm in *Liberty Gap* on the grounds that the scenic resources identified were not sufficiently analyzed by the expert and that as a result, the applicant had failed to meet its burden on the issue of visual impacts. Similarly, there is authority for reducing the number of turbines in response to an identified visual impact.¹²⁰

With respect to the several private properties effected by the aesthetic impacts of the project, evaluation of those effects, involves to some degree, an inherently subjective sense of beauty, felt most by those subjected to the sight of it. Shakespeare said, "Beauty is bought by judgement of the eye."¹²¹ Thus, the opinions of those who will be most directly affected by the new landscape outside of the windows of their homes should be given considerable weight. Ms. Longgood, Richard Block, Lorraine Block, the Audubon panel, Ms. Law and

¹²⁰ See *In re Jordanville Wind, LLC*, N.Y. Public Serv. Comm'n, No. 06-E-1424, Order Granting Certificate, dated Aug. 23, 2007, at 19 (to protect view shed, which included a lake and surrounding area, PSC authorized 19 fewer turbines than were proposed) (<http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={1BC357C4-7C9C-4ED9-9175-643C936F27D5}>).

¹²¹ W. Shakespeare, *LOVE'S LABOURS LOST*, Act II, Scene 1 (1598).

many letter writers, all articulately and credibly expressed their beliefs that the project will have an unreasonable adverse effect on aesthetics from their perspectives as community members and owners of property that will be affected by the project.

For resources enjoyed by the public, Ms. Vissering credibly showed how the project would have an unreasonable adverse effect on a wider field of visual resources and scenic views. There is a great deal of credible evidence both professional and lay that demonstrates that the perception of the project is that it will almost certainly be out of place and out of scale and will diminish the experience of many users of the many visually sensitive local resources from which the project will be visible. Ms. Vissering has recommended important and rational elements of mitigation which the Applicant has not shown would be impossible for the project to employ. Without any mitigation, however, the weight of the evidence is that the project will have an unreasonable adverse effect on aesthetics. There is little or no evidence in the record that the project will be perceived as acceptable, in place, or in scale.

B. The Applicant Has Not Met Its Burden To Show That The The Project Will Not Have Unreasonable Adverse Effects On The Natural Environment.

As the Committee has done in both *Granite Reliable* and *Groton*, the weight of the evidence again supports a condition that requires the owner to conduct three years of post-construction monitoring and other key studies. Mr. Lloyd-Evans, a well qualified, independent, experienced and credible expert on birds and bats testified, as he has in those prior cases, that three years of post construction studies was necessary.¹²² The rationale is that given the lack of preconstruction data and the ability to draw any conclusions from that

¹²² Tr. Day 6, PM, at 122 (Mr. Lloyd-Evans answering question from Dir. Robinson, “This just seems like a very sensible thing to do.”); *see also* Tr. Day 9, AM, at 79 (Mr. Brown).

data, a post-construction program needs to be robust.¹²³ Multiple years are necessary to account for variations in production of young, wind and weather patterns, and the makeup of the migratory population.¹²⁴ It is only with multiple years of post-construction work that the project can begin to learn whether adaptive management techniques are working and are appropriate.¹²⁵ As Mr. Lloyd –Evans said, “Post-construction mortality is the best and most relevant test of what actually happens and whether adaptive management changes in operation are required ...”¹²⁶ “Without a rigorous, multiple-year post-construction mortality survey, it is unreasonable to assume we have adequately addressed real impacts of this proposed development.”¹²⁷ The multi-year program will be especially important for nighthawks where those birds were not even considered by the USFWS.¹²⁸ Going on only one year of data to make adaptive management decisions is “foolish.”¹²⁹

There is credible reason to be concerned about the project’s effects on avian species, especially hawks, eagles, and bats.¹³⁰ Eagles are users of the adjacent Audubon Sanctuary and are nesting at a nearby lake.¹³¹ The risk to them has been described by experts and

¹²³ Exhibit PC-3, testimony of Mr. Lloyd-Evans, dated July 31, 2012, at 4 (“Without conditions from the SEC mandating through post-construction monitoring, the poor correlation pre- and post-construction gives a weak basis to conclude that there will be no local population level effects” particularly with bats because of white-nose syndrome.)

¹²⁴ Tr. Day 6, PM, at 76-79, 108, 135-36.

¹²⁵ Exhibit PC-3, at 4, 7; Tr. Day 6, PM at 96-97.

¹²⁶ Exhibit PC-3, at 4.

¹²⁷ Exhibit PC-3, at 7.

¹²⁸ Tr. Day 9, AM, at 57-58, 95 (Dr. Foss); Tr. Day 6, PM, at 122 (Mr. Lloyd-Evans “I think it would be very sensible to have additional considerations” for common nighthawk).

¹²⁹ Tr. Day 6, PM, at 94.

¹³⁰ Tr. Day 9, AM, at 94, 176 (Mr. Brown) (the abutting Audubon Sanctuary has a significant little brown bat population); Tr. Day 4, AM, at 96-97 (Mr. Gravel acknowledging that little brown bat populations have “declined significantly” and that they will probably be listed as endangered).

¹³¹ Tr. Day 9, AM, at 81 (Mr. Brown) (bald eagles are common users of the Willard Pond area); Tr. Day 4, AM, at 112-13.

USFWS as “moderate.”¹³² The proximity of a wind facility to endangered bat populations aggravates pressures on them caused by white nose syndrome.¹³³ At a wind project in Vermont, bat mortality recently has been high enough to cause the State of Vermont to require a take permit and management plan for bats at the facility.¹³⁴ And yet, the Applicant’s witnesses minimize bat mortality while strangely still recognizing the uncertainties in the fate of New England’s bats.¹³⁵

The Applicant urges great confidence in its ABPP which it claims was “acceptable to” the USFWS.¹³⁶ The acceptance, however, is somewhat of an exaggeration as it remains uncertain because the final letter had not been received by the close of the hearing and it could take “multiple years.”¹³⁷ Moreover, the acceptance says nothing about how much post-construction study the service might ultimately require. The USFWS’ acceptance, such that it is, of the ABPP, would not cover any issues pertaining to nighthawks.¹³⁸

The project does not have an adequate plan for managing the occurrence of common nighthawks, a listed state-endangered species.¹³⁹

¹³² Tr. Day 9, AM, at 198 (Dr. Foss) (noting that USF&WS has determined that the risk to bald eagles posed by the project is “moderate”). Tr. Day 4, AM, at 113-14 (Mr. Gravel and Mr. Valteau nonetheless minimizing risk to eagles yet acknowledging that “there’s uncertainty with everything we do...”).

¹³³ Tr. Day 6, PM, at 82-85.

¹³⁴ Exhibit PC-6, Testimony of Mr. Lloyd-Evans, dated October 11, 2012, at 3-4 and attachment; Tr. Day 6, PM, at 83-84 (noting significant number of bat fatalities at northeast wind facilities and observing “Seems like a lot of bats for this region.”); Tr. Day 6, PM, at 86-87 (Mr. Lloyd-Evans indicating that at the Sheffield Vermont project the actual number of bats found killed, in raw data, was 70-75, but that number could be higher once accounting made for searcher and scavenger factors).

¹³⁵ Tr. Day 4, AM, at 98, 100, 101-102.

¹³⁶ Tr. Day 3, PM, at 100, 108.

¹³⁷ Tr. Day 4, AM, at 118. The Applicant’s witnesses also exaggerated in their testimony the degree by which they followed the USFWS guidelines. *See* Tr. Day 4, AM, at 30-38 (Mr. Valteau and Mr. Gravel retreating from their prefiled testimony under cross examination that they had followed certain analysis in the guidelines).

¹³⁸ Tr. Day 9, AM, at 114 (Dr. Foss).

¹³⁹ Tr. Day 9, AM, at 57 (Dr. Foss); *id* at 93.

The project will be located next to an Audubon Sanctuary and in an area that has been carefully conserved with a good deal of protected habitat, including that much of the project area has been designated by the Fish & Game Department as “highest ranked habitat.”¹⁴⁰

The Applicant’s ABPP while a recognizable beginning, is not enough to provide the Committee the degree of comfort that is necessary in light of the lack of evidence of the project’s effects on birds and bats. The primary issue is that, other than the single year of study, the Applicant wants to be able to do whatever it likes with respect to continued monitoring and undertaking adaptive management efforts, including its experimental curtailment program.¹⁴¹ That an agency was willing to accept an applicant’s plan as adequate did not dissuade the Committee from requiring more by way of a condition in the *Groton* case.¹⁴² At bottom, the project’s economics will be the deciding factor for the Applicant – “everything comes down to money,” not the environment.¹⁴³ With only the one year of data and a curtailment plan running, its difficult, if not impossible to see how the Applicant will

¹⁴⁰ Tr. Day 4, AM, at 84 (Mr. Gravel responding to Chairman Ignatius question); see Exhibit AWE-40 (high ranked habitat map); Exhibit ASNH-3 (Audubon map showing Sanctuary property in relation to project); Exhibit AWE-40 (map), *see also* US Fish & Wildlife Serv., *State of the Birds 2011*, at 14, 28 (noting that forest bird populations are being harmed by wind development and fragmentation from road construction among other activities) (<http://www.stateofthebirds.org/State%20of%20the%20Birds%202011.pdf>).

¹⁴¹ Tr. Day 4, AM, at 100, 101, 108 (Mr. Gravel, “That one year is just the evaluation phase, with a commitment to consult and adapt for future years, if necessary.”), and 109-10, at 121 (after mediation fails “Well, then, probably the proponent and the agencies will want to come back maybe.”)

¹⁴² *See Groton Decision*, at 64 (noting similar proposal as presented in this case was acceptable to NHF&G); *Groton Order*, at 4 (requiring a good deal more).

¹⁴³ Tr. Day 3, PM, at 229 (Mr. Gravel: “Everything comes down to money. So money is a big deal to all of us, I think.”); Tr. Day 4, AM, at 100 (Mr. Gravel, “I guess we’re hesitant to place specific bounds on an operation – the operation of the project to find out that it’s not really working, I guess.”); *see also* Exhibit AWE-9, Appx. 12F, Avian and Bat Protection Plan for the Antrim Wind Energy Project, dated Jan. 24, 2012, rev’d June 15, 2012 (“*ABPP*”), at 60 (“The adaptive management process needs to take into account impacts to Project operations. *Any additional controls will need to be supported not only by science, but by economic considerations that ultimately determine the project’s viability.*”) (emphasis added).

know at that point whether the plan has been successful or not.¹⁴⁴ With only one year of post-construction study and curtailment work, the Applicant could decide, on its own and in spite of consultation, that all is well and close up the ABPP shop. Moreover, the Committee does not have authority to delegate its duty to determine whether the project meets the requirements of RSA 162-H: 16 and cannot require the U.S. Fish & Wildlife Service to enforce terms of a Certificate. With those several key contextual problems, the Committee should require much more of the Applicant than what it has offered.

The way the ABPP is structured, it has no teeth – the Applicant will consult with USFWS over adaptive management measures but if there is a disagreement, there is no recourse.¹⁴⁵ The Applicant *actively resisted* including recourse to the Committee when such was proposed by Fish & Game.¹⁴⁶ The result is that despite the lengthy process that is about to conclude, if the Committee decides to accept the Applicant’s approach, *i.e.*, let us run the ABPP without serious conditions from the Committee, it is really no different than if the Applicant had done nothing here at all. And yet, it is clear that the experts agree that there is some risk and that risk is not fully known or knowable. Mr. Gravel said, “you can’t, and I’ve said this for the past three projects as well, that you can’t correlate pre-construction surveys

¹⁴⁴ Tr. Day 4, AM, at 100 (question by Chairman Ignatius).

¹⁴⁵ ABPP, at 67 (end of consultation process is mediation “as appropriate to assist in resolution”); Tr. Day 4, AM, at 120-21.

¹⁴⁶ See Exhibit Comm-16, Letter from NHF&G, dated Oct. 26, 2012 (suggesting including F&G ability to bring dispute to SEC); Tr. Day, 3, PM at 109 (fish and game’s request “overly burdensome”); Tr. Day 4, AM, at 24-27 (Mr. Gravel and Mr. Valteau reiterating their position on why Fish & Game’s ability to bring dispute to SEC is unnecessary and overly burdensome), at 120-21 (Mr. Gravel and Mr. Valteau, acknowledging the lack of recourse but arguing that it is not needed). The Applicant also resisted Fish & Game’s nesting protective tree clearing schedule as “onerous.” Tr. Day 3, PM, at 107.

with post construction mortality.”¹⁴⁷ The Committee has previously held “that preconstruction studies serve as baseline studies and *have no predictive value as to the actual effect* on the various wildlife species.”¹⁴⁸ In prior cases, including the last one where the applicant proposed a very similar ABPP requiring one year of mortality study and which had agency acceptance, the Committee acknowledged its critical role and placed meaningful conditions that can be enforced by the Committee if necessary.¹⁴⁹ The last two projects both required the applicants to conduct three years of post-construction population and mortality studies and work with agencies to deal with issues. So far, however, neither of those projects has produced any of the information that those studies would generate.¹⁵⁰

The Committee in *Groton* held,

Post-construction studies assist the Subcommittee in assuring that a facility will not create an unreasonable adverse effect on the environment. If an unreasonable adverse impact does occur the studies should inform the Applicant, state agencies, and the Subcommittee in determining what mitigation may be required to avoid such effects. Ultimately, any post-construction study is helpful to the Subcommittee only if it demonstrates the effect of the Project on natural environment of the region and helps to determine whether such effect is adverse and unreasonable.

The Subcommittee finds, in this case, that one or even two years of formal scientific post construction study is insufficient to properly gauge the effect of the Project on avian species from one year to the next because bird and bat populations may vary from year to year due to the weather conditions, environmental conditions, and other factors. Studies conducted in a single year or even for two years will have difficulty in identifying the cause of such

¹⁴⁷ Tr. Day 4, AM, at 21; *accord* Groton Decision, at 64 (referring to same point); GRP Order, at 55 (“The Subcommittee recognizes, as testified to by Dr. Lloyd Evans, that preconstruction studies serve as baseline studies and have no predictive value as to the actual effect on the various wildlife species. Thus, it is important that the Applicant conduct similar post-construction studies in order to obtain a measure of the actual effect of the project on the wildlife in the area.”)

¹⁴⁸ GRP Order, at 55 (emphasis added).

¹⁴⁹ See Groton Decision, at 68-69; *In re Groton Wind*, N.H. Site Eval. Comm., No. 2010-01, Order and Certificate of Site and Facility, dated May 6, 2011, at 4 (setting forth detailed post-construction monitoring in conjunction with applicant’s ABPP); GRP Order, at 55-56.

¹⁵⁰ Tr. Day 6, PM, at 132-34.

population shifts. Therefore, a minimum of three years of post-construction studies are required in order to accurately reflect the impact of the Project on the shifting composition of bat and bird populations in the region.¹⁵¹

As a result the Committee imposed the following condition.

Further Ordered that the Applicant shall conduct breeding bird surveys that replicate or improve upon the Stantec pre-construction surveys for the project; spring and fall diurnal raptor surveys that replicate or improve upon the 2009 Stantec survey, except that the fall surveys will extend into November to ensure capturing eagle migration; summer and early fall peregrine falcon surveys that replicate or improve upon the Stantec pre-construction surveys for the project; spring and fall nocturnal migratory bird radar surveys that replicate or improve upon the Stantec pre-construction survey for the project; acoustic surveys of bat activity that replicate or improve upon the Stantec pre-construction survey for the project; bird and bat mortality surveys that replicate or improve upon the West, Inc. 2010 Post-Construction Fatality Survey for the Lempster Wind Project, shall temporally coincide with breeding bird surveys, diurnal raptor surveys, nocturnal migrating bird surveys, and bat surveys. The breeding bird survey, diurnal raptor survey, nocturnal migrating bird survey, bat survey, and bird and bat mortality survey shall have duration of three years, commencing during the first year of operation. New Hampshire Fish & Game (NHF&G), in consultation with U.S. Fish & Wildlife Service (USFW), shall review and approve all study protocols. The Applicant shall commence informal monitoring as described in Iberdrola's Bird and Bat Protection Plan after completion of the aforementioned surveys. Informal monitoring shall continue for the life of the Project. Annual reports shall be submitted to, and discussed with, NHF&G and USFW, and shall serve as the basis for mitigation measures if effects are deemed unreasonably adverse.¹⁵²

All of the same risks and issues that deeply concerned the Committee then are still present.¹⁵³

The Applicant has not presented anything persuasive in this case to show that this project is materially different or that the state of knowledge about effects has materially improved or that its ABPP is materially better than the one proposed in the *Groton* case in 2011.¹⁵⁴

¹⁵¹ Groton Decision, at 68-69.

¹⁵² Groton Order, at 4.

¹⁵³ Tr. Day 6, PM, at 76-79, 108.

¹⁵⁴ Tr. Day 4, AM, at 123-24 (Mr. Gravel responding to questions from Attorney Iacopino about the differences and similarities between the Groton ABPP and the one proposed here.)

Consequently, where the Applicant cannot meet its burden to show that the project will not have an unreasonable adverse effect on the natural environment, imposition of a condition very much like that imposed in the *Groton* case is appropriate and supported by the record and by recent precedent.

C. The Applicant Has Not Met Its Burden To Show That The Project Will Not Have An Unreasonable Adverse Effect On Aesthetics and Public Health and Safety Because of the Noise Impacts On Nearby Residents.

The weight of the evidence supports a finding that the project's anticipated noise production levels will create an unreasonable adverse effect on public health and safety and aesthetics. There are basically two issues presented. The first is: did the applicant adequately monitor background noise levels? The second is: has the applicant presented a credible estimation of the noise and sound production of the project once it is installed?

In his testimony, Mr. Tocci, an experienced and knowledgeable acoustical engineer, determined that background noise levels at Willard Pond and Gregg Lake would be consistently very low.¹⁵⁵ Similarly, by removing insect noise Mr. Tocci found very low levels of background noise at locations along Lovern Mill Road and Salmon Brook Road and that these quiet levels were "characteristic of the area" as it was not built-up.¹⁵⁶ That "is what I would expect for a very quiet area away from highways at night when there's very little human activity going on. Once you have removed the insects, there's not much to be

¹⁵⁵ Exhibit PC-5, at 8-9 (and Table 1), and 20-21; Tr. Day 7, PM, at 118 (background sound level at Salmon Brook Road would comparable to those in a wilderness area); Tr. Day 8, AM, at 154 (Mr. James); Tr. Day 5, AM, at 9 (Mr. O'Neal agreeing that when insect noise is removed "it could be as low as 15 decibels at night, at Willard Pond"); Tr. Day 7, PM, at 192-94 (Mr. Tocci responding to questions by Attorney Patch.)

¹⁵⁶ Exhibit PC-5, at 18, 20 (table showing appropriate adjustments to remove insect noise from data collected by Epsilon at Lovern Mill and Salmon Brook locations); Tr. Day 7, PM, at 119.

heard out in an area like that,” said Mr. James.¹⁵⁷ Mr. O’Neal and Mr. James both agreed that Mr. Tocci’s calculations and analysis to factor out insect noise to ascertain true background levels were done “appropriately” and “reasonably.”¹⁵⁸ Mr. James concurred that background noise levels in rural communities would easily fall into the kinds of ranges Mr. Tocci measured and calculated.¹⁵⁹ Mr. O’Neal also agreed that the way in which Mr. Tocci arrived at the lower background levels was appropriate.¹⁶⁰ Mr. Tocci also determined that use of the Applicant’s background noise “data would understate AWE sound impact when impact is quantified as an amount that the background sound would be raised during AWE operation.”¹⁶¹ He demonstrated with Table 2 in his testimony that when the background noise levels were adjusted to remove insect noises that would only be present during summer months, the amount by which the turbine noises exceeded background levels would be significant and would create substantial risk of people living with those sound levels of being “annoyed” or “very annoyed.”¹⁶² Mr. James corroborated this approach and explained the meanings of the expressions.¹⁶³ Mr. James concluded, “from what I have seen, the community will have a negative impact. And the negative impact will be extreme for all the people within 4,500 feet.”¹⁶⁴ Even Mr. O’Neal admitted, “some people will probably react adversely to” a 10 decibel excess of turbine noise over background.¹⁶⁵ “Some people are

¹⁵⁷ Tr. Day 8, AM, at 154.

¹⁵⁸ Tr. Day 4, PM, at 253 (Mr. O’Neal: “And it certainly appears that he’s applied that correction appropriately.”); Tr. Day 5, AM, at 8-9 (“It’s an appropriate technique.”); Tr. Day 8, AM, at 133-34 (Mr. James concurring that Mr. Tocci’s methodology and approach were reasonable.)

¹⁵⁹ Tr. Day 8, AM, at 111, 124-25,

¹⁶⁰ Tr. Day 4, PM, at 253; Tr. Day 5, AM, at 9.

¹⁶¹ Exhibit PC-5, at 18.

¹⁶² Exhibit PC-5, at 20 (and Table 2).

¹⁶³ Tr. Day 8, AM, at 113-121.

¹⁶⁴ Tr. Day 8, AM, at 170.

¹⁶⁵ Tr. Day 4, PM, at 197.

very much bothered” by wind turbine noise, he said, “you can be fairly confident that some folks will still be bothered by it, and they will still hear it, and perhaps complain about it, even at fairly modest sound levels.”¹⁶⁶ Tellingly, Mr. O’Neal allowed that it was “certainly” a possibility that the noises he modeled would wake people up at night and not allow them to get back to sleep.¹⁶⁷ The consistency of the turbine noise is not something to which people can generally be expected to adapt.¹⁶⁸

The Applicant’s measurements and general approach suffer from several weaknesses. The evidence shows that Mr. O’Neal’s measurement of background levels was not properly done and made outside the parameters of the applicable scientific standards.¹⁶⁹ First, despite the lack of any great exigency, Epsilon conducted its background noise measurements during a time of year when other, non-constant, environmental noises, such as insect noise, leaf rustle and running water, would elevate background levels.¹⁷⁰ The problem with this is that during the season when the project would most likely be most active – winter—the actual background noise palate would not include insects, leaf rustle and running water—and yet it would be used to infer a louder background level over a wider area.¹⁷¹ Additionally,

¹⁶⁶ Tr. Day 5, AM, at 24, 26.

¹⁶⁷ Tr. Day 5, AM, at 29 (“I would never say that that wouldn’t be true.”)

¹⁶⁸ Tr. Day 8, AM, at 122-24.

¹⁶⁹ See Tr. Day 8, AM, at 99-101 (pointing out that Mr. O’Neal did not in fact follow ANSI procedures for measuring background noise); at 175 (“Mr. O’Neal did not follow either of the two standardized methodologies, S12.9 Part 2 or S12.9 Part 3, in his background study.”); Tr. Day 7, PM, at 138-39 (Mr. Tocci noting that Mr. O’Neal did not follow recommended monitoring approach required to be able to screen out contaminating noise and correct.)

¹⁷⁰ Exhibit AWE-3, Appx. 13A, at 5-2 (O’Neal’s background measurements taken Sep. 16, 2011 until Oct. 4, 2011); Tr. Day 8, AM, at 126-29 (explaining problem of recording during periods of insect noise, leaf rustle and running water); Tr. Day 7, PM, at 144 (Mr. Tocci agreeing that Mr. O’Neal could have conducted monitoring at quieter times of the year.)

¹⁷¹ Tr. Day 7, PM, at 133 (Mr. Tocci); Tr. Day 8, PM, at 18 (Mr. James) (“If you are characterizing only the area near the residence, and the residence was near the brook, then [placing a monitor near a brook is] appropriate. If you’re trying to use five data sites to represent a community that covers thousands of acres, then its not appropriate, unless everyone has a brook near their home.”)

Epsilon’s approach did not always lend itself to filtering insect noise out.¹⁷² Yet, Mr. O’Neal fully agreed that “there is certainly some insect noise that contributes to those levels.”¹⁷³ As Mr. Tocci testified, “when its possible to extract a clearly identifiable contributor to the environment that is not a constant part of the environment, and where the background sound level that you’re – that is trying to be characterized is one that represents the quietest times of the year, as well as the noisier times of the year, it seems reasonable that a correction should be made for insect sound.”¹⁷⁴ Mr. O’Neal acknowledged that he did not get the right data for insect correction in all the necessary locations and even in the places he did, he did not actually do an insect noise correction.¹⁷⁵

Mr. James, an acoustician of established credibility, presented compelling evidence that calculation and modeling of estimated noise levels from the turbines was also not conducted in accordance with standards.¹⁷⁶ This misuse of the model has real effects by “underestimating what the real-world sound levels will be.”¹⁷⁷ The higher noise levels are understated by using averages of expected noise levels, and that complaints are generated off of the extremes that occur under other weather conditions.”¹⁷⁸ While Mr. O’Neal asserts that working the model off-spec makes for a “good” result, this kind of “almost” is not the

¹⁷² Exhibit PC-2, Testimony of Gregory C. Tocci, dated July 31, 2012, at 7; Tr. Day 7, PM, at 111 (Mr. Tocci) (O’Neal’s monitoring was not attended); Tr. Day 7, PM, 134-140 (lack of monitoring one-third octave band).

¹⁷³ Tr. Day 4, PM, at 80.

¹⁷⁴ Tr. Day 7, PM, at 145-46.

¹⁷⁵ Tr. Day 4, PM, at 206- 207.

¹⁷⁶ Tr. Day 8, AM, at 90 (Chairman Bailey finding that Mr. James had “established his credibility”); Tr. Day 8, AM, at 180-84 (Mr. James pointing out that O’Neal used noise propagation model improperly). The motive for doing this is a matter of debate but it appears clear that the modeled sound levels of the turbines are often underestimated. *See* Tr. Day 8, AM, at 134-138 (beginning explanation why estimates in Mr. O’Neal’s report and testimony are not in fact “worst case”).

¹⁷⁷ Tr. Day 8, AM, at 185.

¹⁷⁸ Tr. Day 8, AM, at 138-39 (“a mean predicted level from optimum noise-emission conditions”), at 185 (approach under-predicts expected sound levels); at 191.

standard here; Mr. O’Neal agrees that aside from anecdotal accounts repeatedly offered about Lempster, he cannot vouch for the accuracy of his predictions.¹⁷⁹

The Applicant’s predictions about the noise levels from the turbines proposed are not based on any data of actual noise produced by an operating turbine.¹⁸⁰ Instead, Mr. O’Neal uses the sound power level provided by the manufacturer from its modeling and claims confidence because of a guaranty (the terms of which at present are not known) of that level.¹⁸¹ Mr. O’Neal’s confidence in the guaranty was not based on actual knowledge of the language of the document, but instead merely on what Acciona people had told him.¹⁸² Mr. James laid bare the claim that the turbine guaranty was a reliable force to give confidence to potential maximum noise levels.¹⁸³ Mr. James’ testimony on this issue was unshaken even after rigorous cross examination by Attorney Patch, and therefore his credibility on the issue must be given considerable weight.¹⁸⁴ In addition, even Mr. O’Neal agreed that if the as-tested sound power of the turbine was higher than the model, the guaranty of the modeled level could not be met and the purchaser would have to look for quieter turbines.¹⁸⁵ He also agreed that the manufacturer only guaranteed the sound power of the turbine, not the sound

¹⁷⁹ Tr. Day 4, PM, at 236 (“the accuracy is unknown”); Exhibit AWE-9, Appx. 10, at 9.

¹⁸⁰ Tr. Day 4, PM, at 126-27 (Attorney Manzelli, Q: Do I understand correctly that the sound levels we’re talking about were predicted using models rather than taking actual measurements of the actual turbines that would be used, and for the same model turbine that would be used at Antrim Wind? Mr. O’Neal, A: That’s correct, Q: So there is no actual measured data from the same turbine anywhere? A: No.”)

¹⁸¹ Tr. Day 4, PM, at 78, 120, 124-26; Tr. Day 8, PM, at 32-33 (Attorney Patch pointing out to Mr. James that Mr. James did not know what guarantee terms might be in an agreement) .

¹⁸² Tr. Day 4, PM, at 124-26.

¹⁸³ Tr. Day 8, AM, at 145-147 (guaranty of noise only applies if turbine run in same conditions, described in IEC standards, so if turbine guaranty is based on a bench test, those same conditions will need to be met for guaranty to have effect).

¹⁸⁴ Tr. Day 8, PM, at 24-28, 30 (reading from actual language of the Acciona guaranty.)

¹⁸⁵ Tr. Day 4, PM, at 252-53.

pressure experienced by any of the receptors.¹⁸⁶ The lack of any measured and reported sound power of the turbines was of great concern to Mr. Tocci. He said

Presently I am unaware of any published sound power levels for the Acciona 3 MW wind turbine tested in accordance with IEC standard 61400. Given the lack of experience with these machines, installing them in close proximity to Antrim residences as this applicant proposes could prove to be very problematic.¹⁸⁷

It thus appears that the Applicant is asking the Committee to rely upon a model built upon a model, without any validation of or information about the first model. This is not evidence, this is hypothesis. That the first model is supposedly backed by a guaranty is of no comfort where the terms of the guaranty are at best unknown and at worst illusory.

It was also shown, that Epsilon's "worst case" was based on averages, of low background and high turbine noise, which tends not to report worst case and instead presents a lower, average number.¹⁸⁸ Mr. James observed, "by ignoring the upside, and only reporting the mean, it gives a false sense that 40 will be the number at that home. Not that 40 is the median for a wide range of sound levels. It could vary from inaudible, to dominating the entire environment."¹⁸⁹ Epsilon's testimony also erroneously suggests a correlation between wind speed at turbine height and wind speed at the receptor meaning a masking of turbine

¹⁸⁶ Tr. Day 4, PM, at 119 ("The manufacturer does not guarantee – that's the difference – does not guarantee the sound pressure levels in the community.")

¹⁸⁷ Exhibit PC-2, at 7; *see also* Tr. Day 8, PM, at 249 ("...we have not seen a report for what the sound power level is of the wind turbines. We've simply accepted their assertion...").

¹⁸⁸ Tr. Day 8, AM, at 134-139, 186-87, 191-93; Tr. Day 8, PM, at 6-10 (Mr. James responding to questions by Attorney Patch).

¹⁸⁹ Tr. Day 8, PM, at 23; Tr. Day 4, PM, at 101, Tr. Day 5, AM, at 45 (Mr. O'Neal acknowledging that sound levels at Ms. Longgood's home could vary by as much as 40 dB.)

noise by receptor level wind noise.¹⁹⁰ Further, as Mr. James and Dr. Ward reported, the Epsilon analysis was based on limited weather assumptions and premises.¹⁹¹

There is evidence that low frequency noise, inaudible to the human ear, may still be problematic in instances where the A weighted audible noises come in at the 45 to 50 dBA levels.¹⁹² The scientific understanding of the effects of low frequency noise is not yet well established but there is a growing acceptance that it can cause problems with some people.¹⁹³ Even since the relatively recent *Groton* case important studies have been published that could not be part of the record then and which advance the state of knowledge in critical ways.¹⁹⁴ Yet, in this case, the Applicant did no modeling for low frequency noise effects, and simply dismisses it as “not an issue.”¹⁹⁵

A very recent study on the issue performed by an independent party under auspices of the Wisconsin Public Service Commission concluded that low frequency noise from operating turbines could be detected in residences within 3,500 feet of the nearest turbine and that such could lead to an adverse response, such as motion sickness, in a human receptor.¹⁹⁶

¹⁹⁰ Tr. Day 7, PM, at 156, 159; Tr. Day 5, AM, at 9-10.

¹⁹¹ Tr. Day 8, PM, at 41-42; at 53-57 (discussing wind shear in response to questions from Attorney Patch); Public Comment of Dr. Fred Ward, Meteorologist, Tr. Day 5, AM, at 74-78.

¹⁹² Tr. Day 7, PM, at 179.

¹⁹³ Tr. Day 7, PM, at 179, 184, 211; Tr. Day 4, PM, at 161-64 (Mr. O’Neal indicating his awareness of complaints about low frequency noise and recent literature).

¹⁹⁴ Tr. Day 7, PM, at 245-47 (Mr. Tocci responding to a question from Dir. Stewart); Tr. Day 8, AM, at 101-104.

¹⁹⁵ Exhibit AWE-3, Appx. 13-A, at 4-1; Tr. Day 4, PM, at 127.

¹⁹⁶ *In re Application of Highland Wind Farm, LLC*, Wis. Public Serv. Comm’n, No. 2535-CE-100 (“*Highland Wind*”), Exhibit CW-7, Channel Islands Acoustics, et al., *A Cooperative Measurement Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm In Brown County, Wisconsin*, Rep. No. 122412-1, dated Dec. 24, 2012 (the “Cooperative Report”), at 4-7, filed with WPSC, Jan. 8, 2013 (http://psc.wi.gov/apps40/dockets/content/detail.aspx?dockt_id=2535-CE-100). The Cooperative Report was commissioned by Clean Wisconsin, which was retained by the Wisconsin Public Service Commission to provide an independent study of the Highlands Project in St. Croix County, Wisconsin. See *Highland Wind*, Order, filed June 26, 2012, PSC Ref. No. 167199. As part of predicting the effects of the Highlands Project, Clean Wisconsin and the WPSC determined to study complaints at the already

The question of whether to recommend conditions to the Highland project's certificate consistent with the Shirley findings (between 33.5 dBA and 39.5 dBA) was deferred to testimony in that case.¹⁹⁷ The record here and the Cooperative Report would indicate, however, that residents near Location 1, (Keene Road) and Location 4, (Reed Carr Road), would likely experience measureable low frequency noise inside of their dwellings and could suffer ill health effects from it.¹⁹⁸ "There's enough of an issue there to call into question that low-frequency sound could be an issue and that the usual ways of evaluating noise, using A-weighted sound levels and so forth, may fall short of trying to identify those issues."¹⁹⁹

Just as the visual effects can be determined with respect to particular private properties, so too can the anticipated noise effects. The weight of the evidence in this regard is also significantly in favor of a finding of unreasonable adverse effects. Ms. Longgood's property would anticipate a noise impact of 26 dBA, being the difference between background (adjusted for insect noise) and predicted.²⁰⁰ Mr. James said, "That... would lead to, as a general rule, a high degree of annoyance complaints. In similar cases where I've gone through the analysis, I would expect that would be a situation that would lead to law suits, if not abandonment of the home."²⁰¹ Mr. Tocci opined, "that would be quite a large

operating Shirley Project in Brown County. Cooperative Report at 2. *See also* Tr. Day 8, AM, at 157-58 (Mr. James describing physical responses to low frequency such as nausea and motion sickness).

¹⁹⁷ *See Highland Wind*, Clean Wisconsin's Corrections to Exhibit and Exhibit Number, dated Jan. 8, 2013, PSC Ref. # 178773.

¹⁹⁸ Exhibit AWE-3, Appx. 13A, at 5-1 and 5-2 (indicating those receptors are 2,900 and 3,600 feet respectively); Cooperative Report at 7; Tr. Day 7, PM, at 179; Tr. Day 8, PM, at 77-79 (Mr. James responding to questions from Chairman Ignatius and addressing reports of physical responses of receptors of low frequency noises from wind projects).

¹⁹⁹ Tr. Day 7, PM, at 246-47 (Mr. Tocci responding to a question by Dir. Stewart).

²⁰⁰ Exhibit AWE-3, Appx. 13A, at 7-5 (Table 7-3); Exhibit PC-5, at 20; Tr. Day 8, AM, at 152 (Mr. James).

²⁰¹ Tr. Day 8, AM, at 152, 154 (low background levels for very quiet area such as Ms. Longgood's property are to be expected).

impact.”²⁰² He further noted that Ms. Longgood’s property, in terms of background noise levels, was more akin to a wilderness area than a residential one.²⁰³

Mr. Block and Ms. Block, who live on Lovern Mill Road near Location 2, expressed concern about the Applicant’s noise report, and in particular its lack of attention to low frequency sound.²⁰⁴ Because the Applicant’s study did “not seem realistic or accurate” the Blocks took the extraordinary measure of being active intervenors in the case and hiring a well qualified and credible noise expert at their own considerable expense.²⁰⁵ Ms. Block stated that several members of the family were “particularly sound-sensitive” and “acutely aware of noise.”²⁰⁶ Ms. Block testified that while visiting other wind facilities she was “severely disturbed by the turbine noise.”²⁰⁷ Mr. Block noted, and Mr. O’Neal did not challenge, that he had recorded a sound level in his home of 18 decibels.²⁰⁸ Near the Blocks’ residence Mr. O’Neal, modeled a predicted sound level of 35decibels from the turbines.²⁰⁹ Using Mr. O’Neal’s data, Mr. Tocci computed an adjusted baseline (insect noise removed) background noise level of 19 dBA.²¹⁰ The difference of 16 dBA is the expected noise effect which Mr. Tocci characterized as significant.²¹¹ Mr. Block testified that he would be very annoyed by that much turbine noise at his home.²¹² He said they had a past history of sensitivity to sound and that he has an inner ear problem and expected that it would interfere

²⁰² Tr. Day 7, PM, at 114.

²⁰³ Tr. Day 7, PM, at 118.

²⁰⁴ Exhibit NB-2, Testimony of Richard Block, dated July 31, 2012, at 7; Exhibit NB-3, Testimony of Lorraine Block, dated July 31, 2012, at 9-10.

²⁰⁵ Exhibit NB-2, at 7.

²⁰⁶ Exhibit NB-3, at 9.

²⁰⁷ Exhibit NB-3, at 9.

²⁰⁸ Tr. Day 4, PM, at 150-51.

²⁰⁹ Exhibit AWE-3, Appx. 13A, at 7-5 (Table 7-3).

²¹⁰ Exhibit PC-5, at 20.

²¹¹ Exhibit PC-5, at 20.

²¹² Tr. Day 11, AM, at 35.

with his sleep.²¹³ He also said when he visited Lempster, the turbine noise caused his ears to ring and gave him a headache.²¹⁴ Ms. Block who works from home, stated she had “very sensitive ears” and would be “very annoyed” by that level of turbine noise.²¹⁵ She said that she had been to Lempster, Mars Hill, and Searsburg, and found “the noise horrendous” from the projects experienced at the same distance from them as this project would be from her home.²¹⁶

Similarly, Ms. Voelcker testified persuasively about her expected response to the level of turbine noise predicted at her home. Using the same methodology that was employed in estimating turbine noise above background that he employed with respect to the Blocks and Ms. Longgood, Mr. Tocci estimated a 15 decibel effect at a point near Ms. Voelcker’s home.²¹⁷ Ms. Voelcker testified that she would be very annoyed by that level of noise from the project at her home.²¹⁸ She said that when she is annoyed, “it makes life not so happy. ... your adrenaline starts rushing. And if there’s nothing you can do about it, it becomes a really self-destructive thing.”²¹⁹ She agreed that it would make it difficult for her to concentrate and it would make her angry.²²⁰ She expressed sincere worries that the project would make her dizzy and that her doctor told her she should move away from her home.²²¹ Finally, she said that she would find that looking at the turbines and hearing them would be a

²¹³ Tr. Day 11, AM, at 35, 36 (“A very serious issue.”) and at 41.

²¹⁴ Tr. Day 11, AM, at 41.

²¹⁵ Tr. Day 11, AM, at 10, 12.

²¹⁶ Tr. Day, 11, AM, at 40. (“I find it very loud.”)

²¹⁷ Exhibit AWE-3, Appx. 13A, at 7-5 (Table 7-3); Exhibit PC-5, at 20; Tr. Day 8, AM, at 18-32.

²¹⁸ Tr. Day 8, AM, at 23, 25.

²¹⁹ Tr. Day 8, AM, at 27.

²²⁰ Tr. Day 8, AM, at 27.

²²¹ Tr. Day 8, AM, at 28.

nuisance to her.²²² Ms. Voelcker's evidence is quite clear that the project's anticipated noises at her home will have a serious and unreasonable effect on the quality of her life and perhaps her health.

If Mr. O'Neal is correct about the Pederson study, the fact that Ms. Longgood, the Blocks, and Ms. Voelcker will see and hear the turbines from their houses, yards, and ordinary movement around their respective neighborhoods, means that their "annoyance levels will go up."²²³

Finally, the weight of the evidence also points to there being an unreasonable adverse effect on the Audubon Sanctuary by turbine noise because of its pristine wild condition.²²⁴

The weight of the evidence shows that the project's predicted noise levels are at best unknown, but at worst, if the predictions are correct, will have a significant and unreasonable adverse effect on the aesthetics of Antrim's quiet residential areas and the health and safety of its residents. At a minimum, the Applicant has not met its burden of showing that its unproven, gigantic, turbines, which the Applicant itself described as "the most intrusive machine commercially available in the 3 mw class," will not have an unreasonable adverse effect on the people of Antrim.

²²² Tr. Day 8, AM, at 35.

²²³ Tr. Day 5, AM, at 26.

²²⁴ Exhibit PC-5, at 20-21; Tr. Day 7, PM, at 121 (wind turbine sound at predicted levels at Audubon would be of "significant concern").

D. The Applicant Has Not Met Its Burden To Show That The Applicant Has Adequate Financial, Managerial and Technical Capability.

1. Financial Capability.

In *Laidlaw Berlin Biopower*, the SEC determined that a power purchase agreement was plainly necessary to obtain financing.²²⁵ The Applicant there had a signed PPA and a comfort letter from a lender to finance the project.²²⁶ The SEC conditioned the certificate upon approval of the PPA and a financial closing. The Committee said,

In addition, the Applicant shall: (i) notify the Subcommittee of approval or rejection of the PPA; (ii) if approved, provide a copy of the approved PPA to the Subcommittee; (iii) identify all changes to the PPA made or caused to be made by the PUC; and (iv) provide supplemental documentation demonstrating the Applicant's financial capability to construct and operate the Facility based upon an approved but amended PPA. Upon receipt of said information and documentation from the Applicant, the Chairman of the Subcommittee will determine whether an additional meeting of the Subcommittee will be required in order to determine if all conditions of the Certificate have been satisfied such that construction may commence.²²⁷

And in a footnote the Committee said,

The review of the PPA as a component of the financial capabilities of the Applicant in this docket differs markedly from the review of the PPA that is conducted by the PUC. This Subcommittee reviews the PPA because the Applicant has proffered the document and its terms as one prong supporting its claim that it will have adequate financial capability to site, construct and operate the Facility. See, RSA 162-H:16, IV(a). The detailed terms and conditions of the PPA are not relevant to the Subcommittee's determination. The creation and maintenance of the cash flow for the PPA is our main consideration. Importantly, we make no determination regarding whether the PPA serves the public's interest, or whether the PPA is a prudent endeavor for the ratepayers of PSNH. Those determinations are not relevant to the siting consideration and are left to the jurisdictional authority of the PUC. The analysis conducted by the PUC is likely to be more concerned with specific commercial provisions of the PPA and public disclosure of these commercial

²²⁵ *In re Laidlaw Berlin Biopower, LLC*, N.H. Site Eval. Comm., No.2009-02, Decision Granting Site and Facility With Conditions, dated Nov. 8, 2010, at 48-49 (“Laidlaw Order”)

²²⁶ Laidlaw Order, at 43.

²²⁷ Laidlaw Order, at 49.

provisions may be necessary in the PUC proceedings so that the public understands and can follow the determinations made by the PUC in that context.²²⁸

Just as important to determining financial capability Laidlaw Berlin Biopower also submitted a fuel supply agreement and testimony from the fuel supplier.²²⁹ With this, the Sub-Committee could determine whether Laidlaw Berlin Biopower's basic cost of producing energy was realistic. The Committee found that "the Fuel Supply Agreement is an integral and important part of the Applicant's ability to provide financial support for the construction and operation of the Facility" and conditioned the certificate upon one being in existence.²³⁰ The Applicant does not have a turbine supply agreement or a balance of plant agreement so its basic cost of producing energy is left to speculation, and the information in the Deloitte report suggests that the Applicant understated its cost.²³¹ The Applicant's estimates for the costs of its project were determined to be lower than most other projects which has a tendency to make the project appear more profitable than it might actually prove to be.²³² Similarly, the evidence suggests that the Applicant has overstated its capacity factor.²³³ While it justifies this with testimony asserting that the newer, bigger turbines have greater capacity factors, the evidence on this point for these unproven machines is scant and flies in the face of documented performance records conservatively presented by Deloitte.²³⁴

²²⁸ Laidlaw Order, at 49.

²²⁹ Laidlaw Order, at 50.

²³⁰ Laidlaw Order, at 50.

²³¹ Tr. Day 2 at 207 (testimony of Mr. McCabe); Deloitte Report, dated Sep. 26, 2012, Exhibit PC 7 at 22-24 ("Deloitte Report").

²³² Deloitte Report, at 22-24.

²³³ *Id.* at 24-27.

²³⁴ Tr. Day 1, at 103 (Mr. Kenworthy testified that he "personally [did] not have knowledge of any specific facility that has achieved these capacity factors" as were being asserted would be achieved by the project.)

Related to this is a tendency of the Applicant to nearsightedness -- the Applicant has a singular focus on getting financing which elides the concern that even with financing it could fail economically.²³⁵ This issue is especially evident in the testimony concerning decommissioning.²³⁶ The Sub-Committee's concern for financial capability is not limited to whether the Applicant can obtain loans, tax credits and equity to build the project, but must also include an equal focus on whether the project is sustainable over the long term. Because of the Applicant's focus on the first hurdle, the evidence on whether the project can make it the rest of the way around the track seems to be missing completely.

In general, the information submitted by Laidlaw in hearings and record before this Committee was far more substantial in meeting the ostensible *Granite Reliable* standard.²³⁷ There was a draft PPA, a fuel supply agreement, a lender's comfort letter, and ample testimony about the corporate and capital structure that was going to be employed. In this case the PPA is hypothetical.²³⁸ The capital structure is unknown. There is no firm indication of any lender or equity partner interested in financing this facility.²³⁹

In its Report, Deloitte concluded that if the project could meet a certain fixed charge coverage ratio and obtain a power purchase agreement, the project could be financed with the

²³⁵ Tr. Day 2, AM at 52, 54 (Attorney Geiger asserting that "the dispositive fact on financial capability is financing"), at 79-80, 83-84, 90-91, 98-99 (Mr. Kenworthy discounting economic risks of the project under acceptance of a condition that the project could not be built unless it demonstrated it had obtained financing), at 100 Mr. Kenworthy "the demonstration of financing essentially satisfies the concern that I think you are identifying.")

²³⁶ See Tr. Day 2, AM, at 36-45; see also Tr. Day 2, AM at 75 (Mr. Kenworthy admitting a lack of experience in matters concerning decommissioning.)

²³⁷ It should not be forgotten that even though financial capability had been found for GRP, it subsequently proved unable to finance the project and build it, and, because of that, sold it. See *In re Brookfield Renewable Power, Inc.*, N.H. Site Eval. Comm., No. 2010-03, Application, at 8-9, and Decision and Order, dated Feb. 8, 2011 at 3, 7-10 (clear that Noble had begun construction but that financing not present until Brookfield took over).

²³⁸ Tr. Day 2, AM, at 207 (Mr. McCabe).

²³⁹ Tr. Day 2, AM at 81 (Mr. Kenworthy); Tr. Day 3, PM, at 77.

efforts of CP Energy.²⁴⁰ The Applicant did not run the fixed charge coverage ratio calculation recommended by Deloitte, and instead argued against its premises.²⁴¹ The Applicant's reluctance to run the scenario should be taken as an admission that it could not achieve the ratio recommended by Deloitte, otherwise it would have boasted about having achieved it. In addition, Mr. Kenworthy testified that CP Energy "could play a large role in the financing of the facility," or none at all,²⁴² But there is no agreement with CP Energy in the record to raise financing for the project.²⁴³ There is no PPA. Thus, the Deloitte Report does not support a finding of financial capability and instead suggests otherwise.

While *Granite Reliable* may have set a relatively achievable standard for showing financial capability, in that case there was an entity that itself had significant and recent experience in raising capital and had made substantial progress towards identifying lenders and negotiating a PPA.²⁴⁴ In this case there is no such organization and instead we are left to trust the experience of Mr. Cofelice and CP Energy alone. There is no PPA in prospect and there is no equity identified. The Committee is being asked to grant a certificate in *Granite Reliable* style with post-certificate conditions, but without the kind of substantial evidence that was present in both *Granite Reliable* and *Laidlaw Berlin Biopower*.

2. Managerial and Technical Capability.

Like the Applicant in this case, Laidlaw Berlin Biopower relied upon the managerial and technical expertise of others for its future obligations with respect to constructing and

²⁴⁰ See Deloitte Report at 2 (financing parameters outside what is typically done but with CP Energy's assistance it could be possible); *but see* Exhibit Comm. 19 (letter agreement with CCA Group to "review of the site application and provide expert testimony in support thereof" until 12/31/2012).

²⁴¹ Tr. Day 2, AM, at 82-83 (Mr. Kenworthy); Tr. Day 3, PM at 17 (Mr. Pasqualini).

²⁴² Tr. Day 2, AM, at 65.

²⁴³ Tr. Day 2, AM, at 67-68; Exhibit Comm. 19 (letter agreement with CCA Group to "review of the site application and provide expert testimony in support thereof" until 12/31/2012)

²⁴⁴ GRP Order at 29-33.

operating the proposed facility. A key difference, however, is that Laidlaw Berlin Biopower submitted evidence of the key contracts and presented testimony from those contractors to establish *their* managerial and technical capability.²⁴⁵ In this case, the Applicant has not met its burden of showing managerial and technical capability because it has made plain that it does not intend to operate the facility itself but instead will rely upon an operations and maintenance agreement that does not yet exist.²⁴⁶

Further, the construction of the facility will also be left to others but the balance of plant agreement has also not yet been negotiated and the contractor not yet identified.²⁴⁷ There is no evidence in the record that AWE itself has any managerial and technical capability to construct and operate the facility.²⁴⁸

The evidence indicates that Acciona *may* operate the facility once constructed. The only evidence about Acciona, however, was testimony of Mr. Segura Coto. He was notably unspecific about the terms and conditions of any engagement to operate the facility safely or in accordance with the terms and conditions of a Certificate.²⁴⁹ The Applicant has not submitted a draft operations and maintenance agreement for the Sub-committee to review for basic adequacy or to resolve some of the issues of uncertainty that were highlighted during the hearings.²⁵⁰ In contrast to the clear record in *Laidlaw Berlin Biopower*, the identities and capabilities of the individuals who will actually operate the AWE facility after construction

²⁴⁵ Laidlaw Order at 51-53.

²⁴⁶ Tr. Day 2, AM, at 207 (Mr. McCabe, acknowledging lack of an operations and maintenance agreement and asserting that the terms of it would not be public); *see also id.* at 171-72 (Mr. McCabe and Mr. Segura Coto).

²⁴⁷ Tr. Day 2, AM, at 207 (Mr. McCabe).

²⁴⁸ Tr. Day 2, AM, at 191-92, 193-96 (Mr. Segura Coto indicating his opinion as to their capability was premised on the existence of agreements engaging Acciona); *id.* at 215-16.

²⁴⁹ Tr. Day 2, AM, at 147 (Mr. Segura Coto).

²⁵⁰ Tr. Day 2, AM, at 147, 152-53 (no safety plan), 209-11, 249-52 (how is decision made to shut down a turbine), and 173-77 (how to implement ABPP and curtailment decisions).

are at this point unknown.²⁵¹ It is clear that the Applicant in this case also presently lack the basic infrastructure to operate the facility proposed and intend to rely on some other party, which may or may not be Acciona.²⁵² It is also clear that the record gives no indication about who will construct the facility and whether that person has the requisite technical and managerial capability for doing so. In light of *Laidlaw Berlin Biopower* it should not be enough for the Applicant to say in essence, ‘trust us we know what we are doing and we will hire someone capable.’

A condition to supply completed O&M and balance of plant agreements prior to construction would seem to be an abdication of the Subcommittee’s duty to assure that technical and managerial capability is shown *at the hearing* and *before* a certificate is issued. In *Laidlaw Berlin Biopower* the Committee reviewed the operations agreement at least in draft form before requiring a final document as a condition. The Committee also actually understood to a much more advanced level how the facility would be operated and by whom. The Sub-Committee should follow the example made in *Laidlaw* and determine that without significant additional information on operations and maintenance of the facility, including, at a minimum, relatively final drafts of the O&M agreement, the Applicant has not met its burden to show managerial and technical capability. The Subcommittee risks minimizing the importance of the proceeding if it were to establish a managerial and technical capability

²⁵¹ Tr. Day 2, AM, at 156 (Mr. Segura Coto “I am not aware of those details. That control center is not under my responsibility.”). A record request for this information was made by the Chair. It was fulfilled with Exhibit AWE-46 which does nothing to establish who will be running this project and what their credentials for doing so might be.

²⁵² Tr. Day 2, AM, at 208-209 (Mr. McCabe “And so, AWE, through its relationships and contracts with, say, Acciona as the O&M provider, is still responsible for the conditions under the certificate.”)

requirement that could be met simply by supplying signed agreements after the fact with no meaningful opportunity for scrutiny.

III. CONCLUSION

Counsel for the Public does not dispute that wind power can have some role in generating electricity in the United States, and perhaps in New Hampshire. Even modest amounts of renewable energy can be useful and beneficial. The proviso, however, is that under RSA 162-H there must be a balance of environmental impacts with the usefulness of the project. In addition, an Applicant must be able to establish the project's viability. One can argue that the community should be willing to make sacrifices of some impacts upon them because the standard only stops projects that have "unreasonable adverse" effects. Too much sacrifice, however, suggests that the effects are not reasonable. The level of effect and sacrifice depends on location, and the Committee should accept that this location is out of scale, has too many significant effects and asks too much in sacrifice. Ms. Block said quite forcefully that,

Okay. You are asking somebody who has spent the last 55 years of their life, you know, conserving electricity, shutting off every light that's not being used, recycling before anybody ... knew about recycling. I mean, you're just asking the wrong person to make this sacrifice, when, you know, I live in a house that's about 55 degrees all winter, because I only make a fire when I absolutely have to. And, you know, I have picture windows that are passive solar. I have, you know, this morning we got up, I made one little fire with about eight sticks of woods in my kitchen cookstove. So, it's just -- we're not the appropriate people to be asked about this. I mean, if everybody lived the way I did, we wouldn't have this problem.²⁵³

The very nature of the Site Evaluation exercise includes as a basic operating assumption that not every location is suitable for developing large energy facilities. The weight of the

²⁵³ Tr. Day 11, PM, at 43 (Ms. Block).

evidence indicates that and the Tuttle Willard ridge adjacent to the Audubon Sanctuary in the Town of Antrim may not be an appropriate site. Mr. James summed it up best perhaps when he noted,

There are many places we can put wind turbines, this is just one of them. ... What we're doing here, though, is we're taking a relatively pristine community, one that has very quiet levels, and trying to argue that it should be an industrial zone.²⁵⁴

In balancing the impacts with the benefits, the indicator seems to tip away from siting the Applicant's facility, as it is proposed, in the place it has selected. For all the reasons shown, the Committee should find that the Applicant has not met its burden.

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²⁵⁴ Tr. Day 8, PM, at 49-50.

Certificate of Service

I, Peter C.L. Roth, do hereby certify that I caused the foregoing to be served upon each of the parties named in the Service List of this Docket.

Dated: January 14, 2013

A handwritten signature in blue ink, appearing to read "Peter C.L. Roth", with a long horizontal flourish extending to the right.

Peter C.L. Roth