

State of New Hampshire
Site Evaluation Committee

Docket 2010-01
Groton Wind, LLC

Final Brief

Intervenor Group Buttolph/Lewis/Spring

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Introduction

On March 26, 2010, Groton Wind (Applicant) filed an application for a Certificate of Site and Facility (Application). The Applicant petitioned the Site Evaluation Committee for a Certificate of Site and Facility (Certificate) in order to site, construct, and operate a renewable energy facility in the Town of Groton in Grafton County. The Applicant proposes to site, construct and operate a wind energy facility consisting of 24 wind turbines each having a nameplate capacity of 2 megawatts (MW) with a total nameplate capacity of 48 MW. This post-hearing brief articulates the recommendations of the Buttolph/Lewis/Spring intervenor group (Intervenors) in order to assist the Committee in its charge to ensure that the Application is fully vetted pursuant to RSA 162-H.

The backdrop against which the Committee is to make its judgments is set forth in **RSA 162-H:1: Declaration of Purpose** which states in part “... the legislature finds that it is in the public interest to maintain a *balance* between the *environment* and the *need* for new energy facilities in New Hampshire; ...that full and timely *consideration of environmental consequences* be provided; ...that the state ensure that the construction and operation of energy facilities is treated as a significant aspect of land-use planning in which *all environmental, economic, and technical issues are resolved* in an integrated fashion, all to *assure that the state has an adequate and reliable supply of energy in conformance with sound environmental principles...*” (Emphasis added).

RSA 162-H:16 sets forth the requirements against which the Site Evaluation Committee (Committee) shall evaluate the application. The Committee must find that:

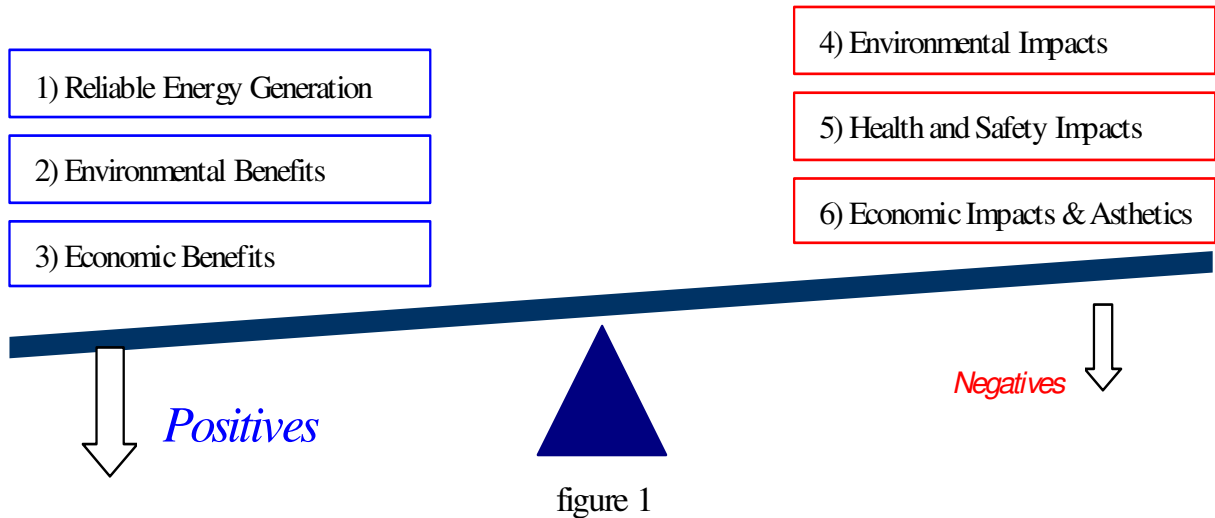
(a) The Applicant has adequate financial, technical, and managerial capability to assure construction and operation of the facility in continuing compliance with the terms and conditions of the certificate. (RSA 162-H:16 IV (a))

(b) The Site and Facility 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. (RSA 162-H:16 IV, (b))

(c) The Site and Facility will not have an *unreasonable* adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety. (RSA 162-H:16 IV, (c)).

RSA 162-H:1 provides the guidance by which the Committee shall evaluate “reasonableness” as stated in RSA 162-H:16 (c)). The anchoring premise in RSA 162-H:1 is the requirement to strike a *balance* between *environment* and *need* while ensuring that *all environmental, economic and technical issues are resolved in an integrated fashion*. In order to assess this balance, the Committee is compelled by statute to independently analyze and ultimately adopt a series of findings in terms of their relative positive or negative contributions to purpose as articulated by the Declaration of Purpose in RSA 162-H:1. Obviously the positives must, in the Committee’s judgment, outweigh the negatives in order to issue a certificate. As such, this brief is structured with the objective of clarifying each finding of fact in terms of positive and negative characteristics relative to the goals of RSA 162-H. A pictorial representation of the Applicant’s requirement is outlined in figure 1.

Applicant must demonstrate that a desirable balance will be achieved
(RSA 162:H-1)



Findings of Fact

The following sets forth the findings of the Intervenor in each category depicted in figure 1, grouped into “Positives” and “Negatives”.

Positives - Findings

1) Alleged Reliable Energy Generation:

It should be clear that a fundamental requirement of any renewable energy facility is that, if constructed, the facility’s design and technology as well as the existing state of the art in grid management technology will actually result in usable, reliable energy that significantly contributes to the state’s portfolio of clean energy generation capabilities. An analysis of this section raises concerns that the applicant may have overestimated the capabilities of this energy facility for the following reasons:

a) Capacity factor findings:

The Applicant, when asked to define “Capacity factor” stated the following: “Capacity Factor is the net production of a wind farm... It’s a function of the availability of the turbines, a percentage of the time that they’re available to produce power. It’s a function of the amount of time at which the wind is blowing and to the extent it can generate electricity. It’s a function of downtime for maintenance, line losses...[resulting] in what we call a “net capacity factor””. (Day 1, AM, pg 33, line 18- pg 34 line 2). ...”on an annual average, our estimate is between 33 and 36 percent... but it does vary in the course of a year.” (Day 1 AM, pg 33, line 18- pg 34 line 15-19).

The capacity factor measurement establishes and quantifies the core reason for this project to exist in terms of benefits to the State of New Hampshire. Evaluating the likelihood that the promised energy generation capabilities will be realized is crucial as the Committee evaluates balance pursuant to RSA 162:1 and reasonableness pursuant to RSA 162-H:16 IV (c)). Capacity factor estimates are the lynchpin for all alleged positive benefits that follow in terms of total anticipated power output from the wind farm (as represented by the average annual capacity factor). Also, obviously the Applicant cannot turn on the wind when needed and the technology for storage of commercial power is not available, so the timing of wind energy’s delivery versus anticipated electricity demand is also an issue to understand.

Evidence exists on an aggregate basis that the wind industry as a whole tends to perform at capacity factors significantly lower than advertised by wind proponents. One such study concluded that the mean realized capacity factor value over a five year period in Europe was in the neighborhood of 21% against a claim of approximately 35%. (Day 5 AM pg 38, lines 9-16; exhibit Buttolph 6).

It is recognized that capacity factors, which are directly related to wind quality according to Mr. Cherian (Day 1 AM, pg 37, line 14-23), will vary by region in proportion to the wind quality in that region. For example, Greece, Ireland and the UK “benefit from numerous windy coastal areas with low density of population that enable effective siting in those preferable zones.” (exhibit Buttolph 6, pg 3, paragraph 1). Average capacity factors in the US from 2002-2007 are analyzed to be 25.5% “...in stark contrast with AWEA (2005)’s claim that a 35% capacity factor is typical for the US”. (exhibit Buttolph 6, pg 3, table 2; paragraph 1). According to the US Department of Energy’s National Renewable Energy Laboratory, wind power in the area of Groton Wind Farm is only in the 4 (fair) to 5(good) range, on a scale of 1(poor) to 7(supurb). (Exhibit Buttolph 4). As such, it is hard to argue that the Groton Wind Farm’s performance will be especially robust when compared to the industry as a whole given these facts.

Given the variety of turbine designs and wind quality at various locations, it would be helpful to examine the actual results from a comparable wind farm for the purposes of testing the projections included in the Application. Since the Lempster facility was also proposed and sited by Iberdrola, utilizing similar siting techniques, and using identical Gamesa G87 turbines, Lempster appears to be a logical comparison choice. We were denied access to this data during the discovery process. However, the Committee presumably has access to this information (proprietary portion of Applicant exhibit 33). Therefore, we defer to the Committee and ask that the Committee examine this data closely. We urge the Committee in its deliberations to assign significant weight in this portion of the analysis to the expert opinions of Mr. Michael Harrington, Staff Engineer, NH PUC based on what we understand to be his expertise in these matters. We also respectfully request that the Committee keep in mind that Mr. Cherian has testified that the capacity factor at the proposed Groton Wind Farm site will likely be lower than Lempster due to Groton’s lower elevation (Day 1 AM, pg 37, line 14-23). Please also be reminded that any change in the anticipated capacity factor will translate to a directly

proportional change in electrical output of the facility (Transcript 11/1/2010, pg 34, line 20 – pg 35, line 12). Therefore, for example if the more likely capacity factor turns out to be in the neighborhood of 25% as suggested by the analysis in exhibit Buttolph 6, using simple arithmetic, assuming a proposed capacity factor halfway between 33 and 36, this would translate to a reduction of anticipated power output of over 27% [$100\% \times (1 - (25/34.5)) = 27.5\%$]. Said differently, 27.5% of the stated reason for placing our homes, property values, historical legacy, wetlands, health and wildlife at risk will have disappeared.

b) Power production versus peak demand

Mr. Cherian testified that wind power is less likely to be available during times of high electricity demand. (Transcript 11/1/2010pm, pg 11, line 19-21). Simply stated, wind tends to blow more during the cooler seasons than it does during warmer seasons. (pg 11, line 14-17). This concern is reinforced by the same phenomenon being experienced in other areas of the country such as the PJM grid (Prefiled testimony of James Buttolph dated August 31, 2010, page 5; exhibit Buttolph 5).

c) Consistency with public policy

Mr. Cherian testified that this project is “consistent with and promotes several public policy goals such as those reflected in RSA 362-F, New Hampshire’s renewable portfolio standard (“RPS”) law, which requires that 25% of the electricity sold by retail suppliers in New Hampshire come from renewable sources by 2025.” (Prefiled testimony of Ed Cherian, March, 2010, page 15). However, according to at least one media report, (exhibit Buttolph 47), “Contracts were signed [relating to the sale of power anticipated to be realized from the Groton Wind Farm] on December 23, 2010”. This power purchase agreement encompasses all of the power to be produced by Groton Wind, (Testimony March 22 pm, pg 24, lines 7-9), including renewable energy credits (page 26, line 2).

The exhibit Buttolph 47 indicates that contracts were signed with Nstar, which is not a “retail supplier in NH”. However, contrary to media reports, Mr. Cherian testified that contracts had not been signed as of this date, although he indicated that Iberdrola hopes that they will be signed. Nevertheless, whether contracts are signed or not as of this writing, we now know that Mr. Cherian’s March testimony in this regard is not applicable considering the facts that have come to light. Given this conflict between Mr. Cherian’s testimony and media reports, it is unclear exactly what happened on December 23, 2010 relative to this business transaction, but it bears noting that this date, reported by the media as a contract signing date, happens to be the very next day beyond the original date by which the Committee was to have made its certification decision pursuant to RSA 162-H:6-a, VIII.

2) Alleged Environmental Benefits:

Mr. Cherian details the Applicant’s hypothetical analysis of the amount of fossil fuel that will no longer need to be burned during his March, 2010 prefiled testimony on pages 16 and 17 assuming a 24MW facility with 2MW turbines that are identical in nameplate to the turbines proposed for this project. He states that “the Project has the potential – depending on what resources are contributing to the regional power grid at the time the Project is operating – to displace the production of electricity from existing fossil fuel plants, thereby reducing air emissions...A 2 MW wind turbine displaces nearly 3,600 tons of carbon dioxide each year, which is the equivalent to planting nearly 2 million square miles of forest. Compared to fossil fuels, to generate the same amount of electricity as a single 2 MW wind turbine for 20 years would require burning 58,000 tons of coal (a line of 10-ton trucks 22 miles long) or 184,000 barrels of oil. For a 24 MW project, that equates to 700,000 tons of coal or 2.2 million barrels of oil over a 20 year period.” (pg 17, lines 5 – 11). However, upon cross examination on Nov 1, 2010 and subsequent disclosure via applicant exhibit 33, it became clear that the calculations included in Mr. Cherian’s testimony are compiled as if each 2MW turbine were simultaneously running at a capacity factor of 100%, 24 hours per day, 365 days per year, for 20 years. In the

case of the 2.2 million barrels of oil, Mr. Cherian also ignores the fact that the State of NH does not rely upon the burning of oil during electrical generation (exhibit Buttolph 2).

Assuming without agreeing for the sake of argument that a capacity factor of 35% is reasonable, the coal tonnage in Mr. Cherian's example would be recalculated as follows, assuming 100% of this wind power displaces coal fired electricity:

$$700,000 \text{ tons} - 455,000 \text{ tons (capacity factor adjustment)} = 245,000 \text{ tons}$$

However, exhibit Buttolph 2 also tells us that, at least in the State of New Hampshire, against a total net electrical generation of 1,829,000 MW, 54.2 % was from sources that generate no carbon whatsoever (898,000MW nuclear plus 93,000MW hydro), 24.6 % was from natural gas that emits only 48% as much CO₂ as coal per kilowatt hour¹ (450,000MW), 96,000 was from other renewables, leaving only 282,000 MW generated from coal, or approximately 15% of New Hampshire's total generation.

Adjusting the coal tonnage considering this reality reduces Mr Cherian's example by another 85% as follows.

$$245,000 \text{ tons} - 85\% \text{ (Nuclear, Nat Gas, Hydro, Other)} = 36,750 \text{ tons of coal}$$

Considering the relatively environmentally friendly electrical generation portfolio of the State of New Hampshire, these common sense adjustments reduce the coal tonnage due to a 24MW facility in Mr. Cherian's hypothetical example, overall, by approximately 95%. While the intervenors acknowledge that the remaining 85% of our power is not generated at a zero carbon footprint, a careful review of exhibit

¹ 1.03 pounds of CO₂ per kilowatt hour from natural gas versus 2.13 pounds for coal, see Applicant Exhibit 4, Appendix 27

Buttolph 2 also shows that the vast majority of it is in fact generated with essentially zero carbon emissions. In selecting coal and oil as the examples in his hypothetical example, Mr. Cherian selected the two most carbon intensive options available, one of which we do not use for power in the State of New Hampshire in any appreciable amount. The Intervenor recognize that carbon offset goals do pertain to generation both within and beyond NH's borders, but the Applicant has not established for the record what New England's regional electrical portfolio represents in terms of carbon generation. Regardless of that, it is incomprehensible that these details would change the fact that Mr. Cherian's example vastly overstates the ability of a 24MW renewable energy wind facility to reduce carbon emissions by many orders of magnitude.

3) Alleged Economic benefits:

The Application vests its arguments regarding economic benefits on a study, paid for by the applicant (\$30,050 – exhibit Applicant 34), titled “Economic Impact of the Proposed Groton Wind 50 MW Wind Power Project in Groton, NH” (Economic Report) by Matt Magnusson, M.B.A., and professors Ross Gittell and James Carter who are professors at Whittemore School of Business and Economics at the University of New Hampshire. (Exhibit Applicant 4, Appendix 36). However, the Applicant did not produce any expert witnesses. The Intervenor took initiative to make a contact on our own, but Mr. Gittell did not respond (Nov 5 pm, pg 5, lines 1-5). This leaves us with only the text of the Economic Report to analyze. A summary of our findings are included herein.

The Economic Report maintains that with a total investment of \$140 million dollars (at 50 MW)², the cumulative benefit would be \$79.6 million dollars over a 20 year

² Appendix 36 is prefaced with a memorandum from Mr. Gittell that the change in project scope from 25 turbines to 24 would “decrease the economic impact by 5 percent or less...well within the normal expected margin of error.” Given the report's assertion that a majority of the benefit from this project is in the construction phase, we do not understand why a nearly 10% reduction in the number of turbines would result in a reduction of benefits that is 5 percent or less.

period to the “local economy”. (Mr. Cherian’s prefiled testimony of March 2010, page 13, states a different number of \$81.5 million). The Overview on page 5, section 2.1, paragraph 4 states the following: “To evaluate the local area economic impacts of the project, the research team drew on their previous research performed that focused on the economic impacts of wind power in New Hampshire including 1) the New Hampshire Renewable Portfolio Standard legislation, 2) New Hampshire’s participation in the Regional Greenhouse Gas Initiative (RGGI), 3) green industry employment in New Hampshire, and 4) the local economic impact of the proposed Granite Reliable Power wind project in Coos County. The analysis defines the local economy in the following paragraph as including Belknap, Carroll, Coos, Merrimack, and Sullivan counties.

Items 1, 2, and 4 listed by the authors are of immediate concern to the Intervenor and should be to the Committee as well. First of all, regarding the authors’ reliance on the Granite Reliable Power wind project in Coos County, these numbers are apparently nothing more than projections from an earlier study by the authors, specifically Matt Magnusson (see page 21). Obviously as of the date of this report, the Coos project had not been built. As discussed earlier in this brief, (section 1c above), Mr. Cherian has testified that power from this wind farm is likely to be sold out of state, rendering his previous testimony regarding the extent to which this project supports NH’s RPS legislation (RSA 362-F) to be in doubt. Regarding RGGI legislation’s impact, (RSA 125-O:19) the Manchester Union Leader reported on March 30, 2011 that “The House today sent to the state Senate a bill that would end the state’s participation in the Regional Greenhouse Gas Initiative. Repeal of the law... was among the priorities Republicans set this year, arguing it is a tax on carbon emissions that hurts consumers.... Speaker of the House William O’Brien praised the bill’s passage, saying it “Puts more money in the pockets of New Hampshire citizens through lower electric bills.”

<http://www.unionleader.com/article.aspx?headline=Bill+to+withdraw+from+regional+cap+and+trade+heads+to+Senate&articleId=839c90ca-0cae-4716-81db-3190bf54c6ef>)”

The vote was 251-108, sufficient to override a possible veto from Governor Lynch. It also bears noting that Republicans hold a supermajority in the Senate, with 19 out of 24

members, making the final passage of this bill that would repeal RSA 125-O:19 very possible.

On page 8 of the Economic Report, the authors assert, “A broader economic benefit is diversification of the power generation mix ... and potentially lower energy prices.” It is the Intervenor’s view that the word “prices” should be replaced by the words “costs to the developer”. It would appear that the prices charged to rate payers are likely to be above what is currently paid for conventional energy based on media reports such as the one referenced in exhibit Buttolph 47. Missing from this report is a definition of the term “broader”. It is the view of the Intervenors that, based on the testimony from Mr. Mihalik, “broader economic benefit” in this context can be best defined as enrichment to the bank account of Iberdrola, much of it courtesy of the US taxpayer. (Testimony Nov 2, AM, pg 9, lines 11-15, pg 25, lines 5-10, pg 26 line 19 – pg 27 line 12, pg 36 line 19 – pg 37 line 2).

Page 9 of the Economic Report (paragraph 1) states that “The benefits provided by individual wind power projects from energy diversification and the reduction of pollution are very difficult to quantify for individual states or local areas.” Page 12 states that “Determination of indirect and induced economic impacts have a degree of uncertainty as the lead contractor, subcontractors and material suppliers have yet to be determined by Iberdrola. Therefore it is difficult to know the extent that materials will be obtained from local sources.” Page 11, paragraph 1 states “In this analysis, a percentage of overall capital expenditures was allocated to labor based on discussions with project management at Groton Wind and default inputs from the JEDI Wind Energy model.”³

There is no mention in this report about the specific economic drivers in the Baker River Valley. The Intervenors are concerned that boiler plate “default inputs” used in this model have no relevance and perhaps may not consider negative impacts to local businesses, such as those dependent upon tourism (see exhibits Buttolph 10 relative to the Polar Caves and exhibit 22 relative to Rumney’s world famous rock climbing).

³ Under “methodology and assumptions”, the opening paragraph indicates that the JEDI Wind Energy model, provided by NREL, was used to calculate regional economic impacts from wind power generation projects.

Presumably, the model provides the capability for these “default inputs” to be tailored to local conditions, but apparently this was not done according to the report. Since the Intervenor and Committee have had no opportunity to question the Economic Report authors, the makeup of these “default inputs” remains unknown. Also, on page 13 the authors state that “The JEDI model inputs did not match up well with data available from Groton Wind.” Later on the same page, the report states “Confidentiality requirements for the Groton Wind project require that only aggregate economic impacts be presented and discussed in this report.”

Regarding the Economic Report’s assessment of fiscal impact to the Town of Groton, (section 4.3 page 18), an annual \$400,000 Payment in Lieu of Taxes had been proposed by the Applicant, against a total commitment in 2008 of \$983,297. It has also been noted in the record (exhibit Applicant 24, pg 55) that Groton residents are not expected to be impacted by the views and sounds of these turbines, which goes a long way toward explaining why a number of individuals associated with Groton are in favor of this project. One example of Groton support is found in a letter dated March 28, 2011 posted on the SEC’s website from Pam and Michael Hamel. Pam is the Groton Town Administrative Assistant, (www.town-of-groton.com/town%20officials.htm) who apparently used a “Rumney” mailing address as noted on her letter to the Committee. She is the same Pamela Hamel who appeared for public comments at a hearing, and identified her address as “17 Old Rumney Road in Groton.” (Day 4, PM, pg 8, line 13).

The only place in the Economic Report that attempts to address the subject of property value concerns is on page 18. The authors appear to vest the majority of their opinion on the applicant’s real estate opinions as expressed by the Applicant’s exhibit 4, Appendix 37. This exhibit is analyzed at length by Mr. Michael McCann, referenced in section 6 of this brief.

The Intervenor could go on at length regarding concerns with this study and the lack of opportunity for discovery relating to its contents. More to the point, considering the Committee’s requirement to evaluate this project based on the record pursuant to RSA 162-H:16 II, we are compelled to point out that the record is full of holes with respect to assessing the alleged economic benefits of this project, which ties directly to

the assessment of whether this project will “unduly interfere with the orderly [economic] development of the region” as required by RSA 162-H:16 IV (b).

Positives – Summary:

Whether it be the total electrical power generated and/or the lack of electrical generation reliability as noted in (1) above, or the ability of the proposed wind energy facility to actually reduce carbon emissions consistent with public policy goals as critiqued in (2) above, or the alleged benefits to the local economy as discussed in (3) above, it appears crystal clear to the Intervenor that the positives in this application are, in all likelihood significantly overstated.

Negatives - Findings

The record is devoid of any suggestion that any of the categories listed below represent a positive consequence of the Applicant’s proposed renewable energy facility. The record only documents the extent of the damage, in hopes that the Committee will ultimately determine that this damage is “reasonable” pursuant to RSA 162:16 (c) when traded off against the alleged positives noted in sections 1, 2, and 3 above.

4) Environmental Impacts:

Both the applicant and Public Counsel provided experts on Avian issues. Also, several exhibits have been submitted to the Committee for its consideration. We would like to take this opportunity to draw particular attention to exhibits Buttolph 15, 16, 17, 43, 44, and PC 22, 23 and 24. When taken in totality, we believe that the Committee should agree that indeed there is an unreasonable adverse effect on our natural environment.

5) Health and Safety Impacts:

a) Groton Hollow Road

The Applicant plans to access the site exclusively via Groton Hollow Road in Rumney, and during the construction phase traffic on this road will include Heavy/Oversized trucking loads. Each of the 24 turbines are composed of 4 tower sections, 1 nacelle, and 3 blades, making up 8 loads per tower. The applicant anticipates that there will be a total of 192 oversized loads delivered to the site up Groton Hollow Road (24 x 8 = 192). (Applicant Exhibit 1, pg 27, page 33). This does not include any additional conventional trucks and cars that will be traveling the road, nor does it include the logging trucks that will be passing through.

Concerns were raised that Groton Hollow road is a very small road. No improvements or modifications to (public) roads are anticipated by the applicant. No widening is anticipated, even on a temporary basis (Day 3 AM, pg 99 line 7 – 24; Day 1 AM pg 75, line 6-19; Day1 Am, page 49, lines 1-22). When asked about the contingency plan if a truck breaks down on this road, Mr. Michael Leo acknowledged that “There are portions where it would take up the whole road” (Day 3 AM, pg 100, lines 16-17). Should this occur, Mr. Leo confirmed that everyone on the south side of Groton Hollow Road from where the breakdown occurs would be trapped, because there is no way out as Groton Hollow Road is a dead end road. (Day 3, AM, pg 100, line 24). We can only conclude that the truck will very likely block this road until it is repaired, towed, or otherwise removed. Should there be a medical emergency at a location south of the breakdown, whether it be at a residence on Groton Hollow Road or an accident at what will apparently be a very busy construction site, there appears to be no plan to ensure that an emergency vehicle can get through. Mr Leo agreed that it’s “probably a good thing to think about ahead of time. It’s something that we can incorporate into the plan for access to the site” (Day 3, AM, pg 102, lines 1- 4). We are waiting for that plan.

Chairman Getz suggested that it would be most appropriate to ask the Applicant to suggest a condition to address this issue, and Applicant exhibit 46 was reserved for this purpose (Day 3, pg 103, line 1). However, the applicant’s suggested condition

merely states that “It is expected that in the event of a truck breakdown, State Police would direct emergency and other vehicles as needed.” (exhibit Applicant 46, paragraph 2, last sentence.) The final paragraph in exhibit Applicant 46 attempts to make the case that since the road is currently used by logging and chipping trucks, no additional plan is needed and the existence of police escorts will actually make the situation safer than the conditions Groton Hollow Road residents face today. However, logging and chipping trucks are typically not “oversized cargo” as defined by the New Hampshire Department of Transportation (DOT). Clearly, this response from the applicant misses the point completely.

Concerns were raised about well water contamination due to blasting. Testifying as expert witness, Mr Leo provided testimony on the necessity to develop a groundwater sampling plan for wells within 2000 feet of blasting. When asked about what would transpire should contamination of a resident’s well be detected, Mr. Leo said that “I don’t want to speak for Iberdrola right now. I think they’re the ones that would have to agree to the remedial action.” (Day 3, pg 99, lines 4-6). There is no plan that addresses this, as far as we know, leaving this issue for resolution at a later date in consultation with DES. (Day 3, pg 98, line 14- pg 99, line 6). Should there be damage or contamination due to blasting, Mr. Cherian indicates that the planned procedure is to have the subcontractor carry the burden by including this responsibility in the contract. (Day 1, pg 25, line 1- pg 26 line 3). Following along this theme, there is also a concern about the aquifer that runs from a location near Groton Hollow Road all the way to the Village of Rumney and across the Baker River Valley, providing drinking water for most of the residents in the region. Peter Walker suggested that the risk to the aquifer was low. However, he was then asked whether he thought those responsible for blasting and well contamination issues associated with a construction site fiasco on route 93, exit 3, had likely made a similar judgment before inflicting that damage. (Day 3 AM, pg 80, lines 13-18).

Regarding blasting and nitrates, it was pointed out that nitrates that could contaminate ground water would be in the blasting residue. Chairman Getz was looking for an exhibit that would explain in greater detail how muck pile management is executed so the terms and conditions from DES can be met (Day 3 AM, pg 107, line 14- pg 108, line 9). Applicant exhibit 47 was reserved for that purpose. It appears that exhibit applicant 47 merely states “NH DES October 8, 2010 “Groton Wind AoT Final Approval” DES Condition 22(4) addresses “muck pile management.” Groton Wind will obtain written details and clarification on proper “blasting muck pile management” from NH DES, and will require that any blasting contractor adhere to DES’s requirements.” This appears to respond to the question by simply stating that the question will be answered. We hope that it will be.

Most of the discussion above relates to risk. A risk, by definition, describes a situation that may or may not occur. Clearly, to have no satisfactory emergency plan in the event Groton Hollow Road is blocked is unreasonable and therefore totally unacceptable and inconsistent with a decision to grant a permit pursuant to RSA 162-H:16 IV (C).

The inconvenience associated with construction is not a risk by definition. Rather, it is an absolute certainty for the residents on Groton Hollow Road if this project is approved. Mr Leo testified that each “wide load” is likely to take 15-20 minutes to traverse Groton Hollow Road, and this is anticipated to occur 192 times (Applicant Exhibit 1, pg 27, page 33). There is no doubt that this small back road will receive heavy traffic, along with the associated dust, noise and traffic safety issues. Apparently, the plan is to notify the residents of the schedule regarding when these 192 trips are likely to occur, so the Residents will need to plan their lives around these events. Complicating matters is the possibility of tourists wishing to observe the construction process, as was experienced in Lempster according to Mr. Cherian (Day 1, pg 63, line 22-24; pg 64, line 1). Although the Town of Rumney has

negotiated a contract with the Applicant, (exhibit Rumney 1), there is nothing that compensates these residents for the extreme inconvenience that they surely will experience, to say nothing of the risks that they will bear.

b) Noise

The Intervenors have concerns regarding the potential for noise issues in the communities surrounding the proposed wind farm. Although the Applicant maintains that there have been no issues at Lempster, (Day1, PM, pg 33, lines 11-13) there are clearly more people living in close proximity to the proposed wind farm in the surrounding communities than there are in Lempster. (Day1, PM, pg 35, lines 1-6).

The Intervenors have sympathy for the technical challenge to provide credible modeling results due to the complex acoustics of the Baker River Valley. We have one report that sounds from a wind farm can be heard as far as 9 miles away when mountains are involved. (Day5, AM, Pg 17, lines 13-16). We have traffic on Route 25, presumably making noise. We have a sound receptor at Plane Jane's Diner, collecting ambient noise. When asked why Plane Jane's Diner was selected as the only receptor location in Rumney, as opposed to, for example, Rumney Village which is right across the river at potentially quieter ambient sound levels, Mr O'Neil stated that it is because on Route 25 there are a "bunch of blue squares" (on the provided map). (Day2, PM, pg 35, lines 12-13). We are unclear on whether these squares represented mostly residences or perhaps businesses, but according to Mr. O'Neil the area was field verified and there were "quite a few houses" (Day2, PM, pg 35, lines 15-16). We are told by Mr. O'Neil that "whether you measure at Plain Jane's or the house next door, it really doesn't matter a whole lot". (Day2, PM, pg 35, lines 19-21). When standing literally right next door to the diner, that judgment sounds credible. Also, perhaps people who live right next door to a diner are used to the sounds of patrons during the day and the occasional tractor-trailer spending the night with its engine running in the parking lot. A quarter mile down

the road, however, is likely to be a very different story in the Intervenors view. It is not clear why they did not, for example, test a location across the river in quiet, historic Rumney Village, location of “approximately 60 potentially historic resources of which 22 are included as exemplar resources” in the PAF. (page 46 of the PAF, exhibit applicant 71). We don’t know, and since Rumney village was not sampled, we respectfully submit that nobody else does, either.

In the process of disputing Mr. Tocci’s numbers, while trying to set a floor level of sound for purpose of measuring contrast to the ambient sound level, Mr. O’Neil questioned Mr. Tocci’s establishing this floor at a time “when the windfarm probably won’t be operating because the winds are calm...” (Day 2, PM, Pg 56 line 16-pg 58, line 8). It appears that Mr. O’Neil has a tendency of discounting data that is collected when the wind is calm because he thinks the turbines won’t be spinning. But the question becomes, calm where, exactly? Down low, or up high? We learned that winds could be 20 mph at the towers while nearly calm at the Baker River Campground (Day2, PM, pg 86, line 21-page 87 line 3). How often in the Baker River Valley is it windy at the top of the ridge, but less windy in the valley where people are living? We submit that this is often true. That’s why the Applicant doesn’t want to build the turbines down in a valley. Mr. Cherian testified that the wind quality at Groton is likely to be lower quality than Lempster because the altitudes are lower. (Day 1 AM, pg 37, line 14-23). If there is one fact we are comfortable with, it is the certainty that it is windier at the turbines than it is where people actually live.

Occasional floods in the valley also created background noise that might mask the turbine noise, contaminating at least one set of data from Mr Tocci (day2 PM Pg 106 line 13 – Pg 108; Exhibit Buttolph 11).

People’s attitudes also must be factored in as well. Will the noise be pleasant and soothing to the listener, or irritating like Mr. Roth’s neighbors’ terrier? (Day2, PM,

pg 74, lines 11-page 75 line 19). Mr. Tocci states that those who live in this area specifically for its quiet character might be annoyed by the Groton wind farm sound. (Day2, PM, pg 76, lines 8-22; Mr Tocci's supplemental testimony, page 14).

Mr. O'Neil's sound measurement studies are based on standards and criteria from AWEA (Day2 PM Pg 9-15). AWEA is a wind lobbyist group, and as such is clearly not impartial. (Exhibit Buttolph 12). Mr O'Neil also indicated that one area of concern involves the question of what happens when agreed upon noise thresholds are exceeded. Mr Oneil testified that "Trying to do some kind of increment over background and trying to do it at a level that's already very low, I think it is going to be very difficult, as a practical matter, to even try to enforce..." (Day 2, PM, Pg 58 lines 9-19). The ramifications under those circumstances are unclear. Mr Cherian testified that in the event of a noise complaint, they were to report this to the Board of Selectmen. The suggested next step appears to be to get the Committee involved in order to sort out the issue. (Day1, PM, pg 33, line 20- pg 34, line 8).

The Intervenors believe that all parties can agree on at least one thing. Wind farm noise is not a positive, certainly as it impacts people's enjoyment of property (aesthetics), and arguably perhaps for people's health as well (health and safety). Numerous studies exist alleging harmful effects on human health, including those authored by Michael Niessenbaum (for whom our efforts at arranging for his testimony on this docket were unsuccessful). Also, the Mazur Intervenor group has submitted numerous documents alleging potential harm to human health to the Committee. Throughout the record of this docket, the only positive comment we heard regarding the desirability of wind farm noise came from Mr. Kevin Onnella. Mr. Onnella attended at least two public hearings (and he also assisted Mr. Cherian with an estimate of the cost of sand.) Mr. Onnella, who is a participating landowner from Lempster, stated at the Plymouth public hearing that his dog likes to curl up under the turbines. Beyond that, we see nothing but bad news for humans and wildlife alike.

6) Economic Impacts & Aesthetics:

a) Property Values:

The Applicant did not provide an expert witness to testify in support of its positions on real estate values (Testimony of Nov 1, AM, pg 47, lines 10-16). Instead, the substance of the Applicant's argument relies upon Mr. Cherian, who is not a certified and/or licensed real estate appraiser. Mr. Cherian states in his prefiled testimony dated October 12, 2010 that "The Applicant stands behind the comprehensive, multi-state hedonic analysis contained in the 2009 Lawrence Berkeley National Laboratory Report ("LBNL Report") submitted with the Application as Appendix 37." (Applicant exhibit 4). The Intervenor must point out that Mr. Cherian has no qualifications whatsoever to credibly embrace this study and portray the study's results as pertinent and applicable to the real estate issues relating to the Groton Application.

However, the Intervenor was able to produce Mr. Michael McCann as an expert witness, who presented himself to the committee as a real estate appraiser and consultant, having been exclusively engaged in that area of real estate for 30 years. (Testimony November 5, AM, pg 7 line 23 – pg 8 line 1). Mr. McCann is listed as a contributor to the LBNL study in the acknowledgment section of that study (Testimony Nov 1, AM, pg 53, lines 9-11; Application Exhibit 4, appendix 37, pg viii). As such, not only is he the only real estate expert testifying on this docket, he also has more particular expert knowledge regarding the background and techniques used to compile the LBNL study than anyone involved in this docket, including the Applicant, by virtue of his acknowledged assistance in developing the LBNL study.

The Committee Chairman recognized Mr. McCann as an expert in the matter of real estate appraisal, acknowledging that he has a "general expertise" to qualify him to testify before the Committee. (November 5, AM pg 11, line 16 pg 12, line 7).

While the committee's initial position at the beginning of Mr. McCann's testimony on November 5, 2010 was that Mr. McCann does not have "particular expertise – experience with this site or NH law", it is the position of the Intervenor that Mr. McCann strengthened his credentials with respect to his knowledge of the specifics associated with the circumstances of this docket throughout his Nov 5 testimony. He has done his homework, and there are numerous citations from his testimony that make this fact crystal clear (see table 1). Also, Mr. McCann undisputedly has particular expertise and experience with the LBNL study, which is something that the Applicant appears to lack. Curiously, while the Applicant objected to the undersigned's motion on Nov 5 to consider Mr. McCann as an expert witness, the Applicant did not establish nor did they attempt to establish that any of the authors of the LBNL study has experience with the Groton Wind site or New Hampshire law.

Mr. McCann testified that, among other things, "the evidence relied upon by the applicant does not support their claim that "multiple real estate studies found no evidence that the presence of wind farms has a negative effect on residential property values." In fact, the report cited by the applicant does not even state the conclusion cited in the application." (Testimony Nov 5, AM, pg 12, lines 12 – 24; memo from Mr. McCann to the New Hampshire Site Evaluation Committee dated August 31, 2010, paragraph 5.). Further, Mr. McCann's prefiled testimony identified a letter dated December 14, 2009, to Mr. Ben Hoen, who is the same Ben Hoen identified as a primary author of the LBNL report. In it he states, "With all due respect, the final Report falls short of being a truly objective and reliable real estate value study of the issue at hand, in my professional opinion, the reasons for which I will begin to describe in this follow up review." (paragraph 2, page 1 of the December 14, 2009 letter.) Mr. McCann goes on to list numerous detailed reasons for his professional opinion in this regard (pages 2-8). Also included in Mr. McCann's prefiled testimony of August 31, 2010 is a copy of a letter from Mr. McCann to Adams County Board dated June 8, 2010 which includes, among other

things, Appendix C that shows “Mendota Hills Property Value Impact Sale Data” (pg 21). This appendix shows his analysis detailing a reduction of property values of approximately 25% (pg 54). Also referenced in the June 8, 2010 memo is an example of a “Property Value Guarantee” (PVG) as “Attachment A”. A copy of this PVG is found in exhibit Buttolph 33.

Included in table 1 are some of the key subject areas raised and addressed during Mr. McCann’s testimony on November 5, 2010 with the appropriate page and line citations

Table 1

<u>Subject</u>	<u>McCann’s Testimony</u> Sampling of citations and references (Nov 5 AM testimony, unless otherwise identified)
“Failed Marketing Attempts”- Definition and commentary –	Pg 15, line 14 – pg 16, line 17
25% impact to property values within 2 miles of wind farm	Pg 17, line 1-pg 18, line 3 Pg 36, line 10- pg 37, line 7 Pg 80, line 5 – line 15 Prefiled testimony August 31, 2010, memo to Adams Cnty Board, Attachment C
McCann’s recommendations and applicability to terrain and vegetation at Groton site.	Pg 18, line 4- pg 19, line 23
PVG – principles to consider when normalizing analysis for property value impacts due to variables independent of wind turbine proximity	Pg19, line 24 – pg 20, line 22 Pg 41, line 11 – pg 45, line 6 Pg 53, line 11 – pg 54, line 12
PVG – no downside for Applicant if one assumes Applicant’s position regarding the likelihood of property value impacts.	Pg 20, line 22 – pg 21, line 12 Pg 88, line 17 – pg 90 line 16
Alleged potential for property value benefits associated with turbines.	Pg 21, line 13- pg 22, line 7

<u>Subject</u>	<u>McCann's Testimony</u> Sampling of citations and references (Nov 5 AM testimony, unless otherwise identified)
PVG benefit: Peace of Mind for both the property owner and the SEC	Pg 22, line 8 – 20
PVG – Minimal cost to developer	Pg 22, line 21-pg 23, line 12
PVG – Simplified approaches	Pg 23, line 18 – pg 24, line 23
Community alleged secondary benefits associated with job creation, economic activity and tax payments	Pg 25 line 23- pg 27 line 1; Exhibit Buttolph 1-B Buttolph, 1-G (Cape Vincent)
Knowledge of lease agreements requiring lease-holders not to speak negatively about wind turbines	Pg 27, line 10 – line 28, line 1
Viewshed commentary – Loon Lake adverse property value impacts	Pg 28, line 18 – pg 30 line 1
RSA 162-H – Applicable aesthetic standard	Pg 31, line 7 – pg 32, line 4
Familiarity with visual impact assessment	Pg 32, line 5- pg 32, line 20
Familiarity specifically with NH property values	Pg 33, line 2 – pg 35, line 15 Pg 46, line 22 – pg 47 line 21
Topography of project area compared to flat terrain, visual and sound impacts	Pg 37, line 11- pg 39, line 23
PVG – Value projections versus reality	Pg 39, line 24 – pg 41, line 2
LBNL study – Critique	Pg 45, line 7 – pg 46, line 12 Pg 60, line 13-pg 65, line 17 Pg 72, line 4 – 22 Pg 77, line 4 – pg 80 line 4 Pg 82, line 3 – pg 84, line 10 Pg 85, line 10- pg 88, line 1 Exhibit Buttolph 1-A, page 20 Exhibit Buttolph 1-F
Ben Hoen – LBNL based on Masters Thesis	Pg 92 line 13- pg 93, line 3
Ben Hoen now supports PVG	Pg 91 line 4-pg 92 line 7
PVG – recommendations made other than areas close to wind turbines	Pg 48, line 14 – pg 50, line 8

<u>Subject</u>	<u>McCann's Testimony</u> Sampling of citations and references (Nov 5 AM testimony, unless otherwise identified)
McCann neutral on wind power	Pg 51, line 9 – pg 52, line 1
Experience with hedonic pricing models & non-market valuation techniques	Pg 53, line 3 – pg 53, line 10 Pg 69, line 13-pg 72 line 22
2 mile threshold – study of home prices before wind farm was announced	Pg 54, line 13- pg 55, line 22
Turbine proximity versus other factors and choices impacting home values (i.e. house color)	Pg 57, line 19 – pg 58 line 18
Incompatible uses	Pg 58, line 19 – pg 60, line 4 Pg 66, line 8 – pg 67, line 8
Consideration for Logging operations	Pg 67 line 22 – pg 69, line 6
PVG and properties selling above appraised value, duration of time on the market	Pg 74 line 3 – pg 76 line 21
PVG – Trigger that obligates Applicant	Pg 92, line 22 – pg 93, line 16 Pg 94 line 5 – pg 95, line 1

Mr. McCann testified that in his professional opinion, the impact of this wind farm would “not be a reasonable impact on aesthetics. It is very unreasonable.”

(Testimony Nov 5, AM, pg 80, lines 13-15.) The words of RSA 162-H:16 IV (c) are crystal clear on the implications of this statement. This RSA states, “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:

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

RSA 162-H:16 IV (c) does not provide flexibility to the committee to grant a certificate if there is a finding that any one of the categories listed has an “unreasonable adverse effect”. Each and every category listed in this RSA: aesthetics, historic sites, air and water quality, the natural environment, and public health and safety, stands alone as individual pass/fail litmus tests based on the crystal clear wording of this RSA. There has been no witness, no credible testimony, let alone expert testimony that can convincingly refute Mr. McCann’s assertions of unreasonable effect on aesthetics associated with this project’s impact. As such, for this reason alone, the Committee is compelled by statute to deny this certificate.

b) Historic Sites

In support of the Applicant’s efforts to demonstrate that adverse effects on historic sites are “reasonable” pursuant to RSA 162-H:16 IV (c), the Applicant produced Hope Luhmen as their expert witness. It was clear throughout the record that the Applicant had a significant number of challenges in satisfying the concerns of the New Hampshire Division of Historical Resources (DHR). A key issue, according to DHR, was the Applicant’s “insufficient work products”, in particular associated with their efforts to complete a required form known as the Project Area Form (PAF). (Exhibit Buttolph 29).

In spite of the fact that the PAF (applicant exhibit 71) lists three preparers, including Hope E. Luhmen, Ph.D, Steven M. Bedford, Ph. D, and Jacqueline L. Horsford, Ms. Luhmen testified that she was not the author, which was the explanation that she gave for why she was unable to answer basic questions about this crucial report. Instead, she deferred to Dr. Bedford who she indicated “is the primary author of the PAF, the author of the PAF” (Testimony March 22, 2011, AM, pg 44 line 9-12). Unfortunately for all of the parties as well as the Committee, the Applicant chose not to produce the author of this report for testimony and cross-

examination. In addition to being the author of the PAF, Dr. Lumen indicated that Dr. Bedford was “the lead archaeologist”, (Day 6, AM, pg 50 lines 19-20); was responsible for contacting local historical societies (Day 6, AM, pg 50, lines 13-20); responsible for “moving forward with individual survey forms and the Historic Area Forms” (Day 6, AM, pg 51, line 22 – pg 52 line 2); and was responsible for designating whether properties may be eligible for listing in the National Register due to their settings, (Day 6, AM, pg 58 line 5- pg 59 line 4). When asked if she has ever done a National Register eligibility determination for buildings like these, she stated “I have not, personally. I am not an archaeological historian, but Dr. Bedford has.” (Day 6, pg 59, lines 12-14).

Page 46 of the PAF (applicant Exhibit 71) states “Rumney Village is in a very high state of preservation and this compact area contains approximately 60 potentially historic resources of which 22 are included as exemplar resources.” When testifying that additional surveys were necessary in the form of a historic district form for Rumney, Dr. Luhmen defaulted to Dr. Bedford on this as well, stating that “This is based on the findings of Dr. Bedford...” (Day 1, PM pg 116 line 7- pg 117 line 8). When confronted with the fact that New Hampshire’s most famous Revolutionary War General, General John Stark, author of our state motto “Live Free or Die”, was involved in an altercation with Native American Indians in the Town of Rumney, within the village, in the APE, that was significant enough to have a State Law designating a date commemorating General John Stark Day in recognition of the event, she was unaware of it, but stated that perhaps Dr. Bedford was (Day 6 AM, pg 44 line 6-24; exhibits Buttolph 38, 39 and 40). When asked if this fact was something that was important in building a historic context for the purpose of being able to interpret the architectural resources within the APE, she stated that if it were important, then “Yes, I do believe that he [Bedford] would have done so.” We are curious about why it is important to include such things as the fact that the parents of a gentleman who was on the Lewis & Clark expedition happened to live in Hebron at one time (applicant exhibit 71, page 28; day6, AM, pg 73, lines 1-6),

while the General John Stark story apparently was not important. We also are aware that the primary impetus of the John Stark story involved discovery of evidence of Native Americans near the mouth of Stinson Brook, well within the APE (and by the way, right behind the undersigned intervenor's Rumney village home that was built approximately 1900). We are concerned that the archaeological survey may have missed some important facts (Day 6 AM, pg 47 line 3 – pg 48 line 24). We would have appreciated answers to these questions from the expert who made these judgments in order to help determine whether the Applicant had done its due diligence with respect to satisfying their responsibility to conform to RSA 162-H:16 (C). It appears possible that the Applicant simply included some interesting facts into the PAF without fully understanding why they are important, and DHR simply allowed it to slip through. We will apparently never know the answers to these questions, although presumably Dr Bedford may have been able to clear these concerns up.

When Dr. Luhmen was asked if she knew that the government of New Hampshire suggests that tourists drive through something that they refer to as the “River Heritage Tour” including the historic Baker River Valley, and whether she was familiar with the corresponding website (www.viewnewhampshire.gov), she said “now that you have made the suggestion, I will most certainly take a look at it. What is it again?” (Day 6, pg 65 line 6 – pg 66 line 16). When told that this website also discusses period architecture and agricultural heritage, she indicated that while she hadn't reviewed it, perhaps Dr. Bedford had.

When asked who is responsible to determine the area of potential effect (APE), Dr. Luhmen stated that the responsibility lies with the lead federal agency in consultation with others, but it is not determined by the consultant. (Day 6 pg 54, lines 9-14). When asked who did the analysis to determine the APE, she stated it was not the Army Corps of Engineers, but instead it was the applicant's viewshed consultant. (Day 6, pg 54, line 23-pg 55, line 6). However, when the applicant's

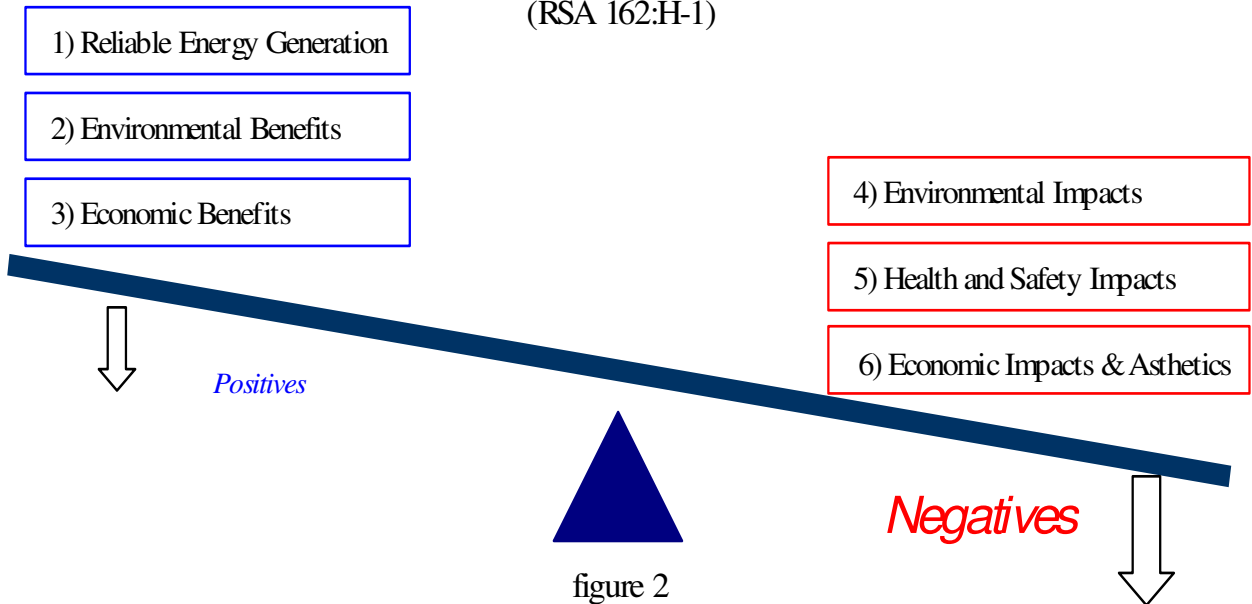
viewshed consultant, Mr. Hecklau, was asked if he was involved in the decision making on the determination of the APE at a 3 mile radius, he stated that he was not. He said that was entirely related to historic resources. When asked what made him decide on the 3 mile radius, Mr. Hecklau said that their study looked at a ten mile radius, not a 3 mile radius. (Day 6 pg 86 lines 1-19).

Even more troubling is Dr. Luhmen's response when asked if one of the buildings in the APE was singled out for further studies because of its setting. She said "No", when clearly the answer, at least according to DHR, (and hopefully Dr. Bedford although we have no way of knowing,) was "Yes" (Day 6, pg 58 line 8 – line 23). I need not remind the committee that in order to determine National Register eligibility, it is sometimes not sufficient to merely have historic architectural charm. Eligibility sometimes depends upon setting, which is where views of wind turbines become a potential issue. (Day 1, pm, pg124 line 18 – pg 125 line 4). When asked this question, either Dr. Luhmen had a different professional opinion than DHR (and answered in spite of her lack of experience and admitted lack of familiarity with this particular phase of the analysis), or she simply did not know the answer to the question but answered it anyway. Either way, it is troubling to this intervenor that her answer is one that would potentially help support the Applicant's case in demonstrating compliance with RSA 162-H:16 (c) even though it appears quite clear to the transcript reader that her answer was incorrect.

We are also concerned that Dr. Luhmen documented in a memo a mitigation option to the Army Corps of Engineers back on August 25, 2010. DHR was apparently by-passed as they were not on copy. (Day 6, am, pg 24, line 3 – pg 29, line 12) (exhibit Buttolph 37). Our understanding is that DHR was surprised to learn of the mitigation proposal submitted to the Army Corps when they first became aware of it during a phone conversation on March 18, 2011.

Based on evidence referenced herein, (which we respectfully suggest is overwhelming,) it is the Intervenor's position that the Applicant did not produce an expert witness who is credible on the many issues surrounding historical sites. There were obviously numerous missteps along the way as the Applicant attempted to work with DHR and the Army Corps of Engineers, but we were not able to confirm that they have been corrected as a result of the lack of discovery available to us on these issues from the expert who presumably was charged with resolving them. We submit that while Dr. Luhmen may have "Faith in the Process" comforting her in the Applicant's hope that unreasonable adverse effects will be avoided, (day 1 pm, pg 117, lines 13- 22), we are struggling in our attempts to gain the confidence to share this faith. This is important to the Committee in its efforts to ensure that RSA 162-H:16 IV (c) with respect to ensuring that there is no unreasonable adverse effect on historical sites is complied with fully. It appears clear to us that the Applicant, by creating the crisis that caused delays in these proceedings, and now failing to provide an expert witness that can credibly attest to the details, has clearly failed to meet their burden to prove that there will be no unreasonable adverse effect on historic sites.

Conclusions
(RSA 162:H-1)



Conclusions

We would like to take this opportunity to recap our final brief for the Committee's consideration.

Regarding the alleged positives associated with this renewable energy facility,

- 1) Reliable Energy Generation: We believe that we have demonstrated that the likelihood that the Applicant has significantly overstated the extent to which this renewable facility can reliably generate electricity is very high.
- 2) Environmental Benefits: It is crystal clear that the applicant substantially overestimated the extent to which this renewable energy facility can mitigate greenhouse gas.
- 3) Economic Benefits: While acknowledging that there will be economic benefits to the region, we believe that a critical review of the Applicant's Economic report shows that the report lacks substance, includes significant "pro wind" bias, and generally reflects what one would expect to see from an Applicant who was able to purchase a study that skews the data to its own material advantage. As such,

these benefits appear to be overstated and do not appear to consider the obvious potential for adverse effects to businesses in the area, such as the one owned and operated by Cheryl Lewis, Intervenor.

Regarding the negatives associated with this renewable energy facility,

4) Environmental Adverse Effects: We believe that we, along with Mr. Lloyd-Evans, have shown that there is a very significant risk to Avian wildlife and bats. We have also presented the opinions of other experts in this field including Kim Vanfleet, biologist, as well as Gil Randall, Chairman of HMANA. We also have unveiled late breaking information relating to the grave danger that these turbines could cause to Peregrine Falcons.

5) Health and Safety Adverse Effects:

The committee has heard a great deal of testimony regarding adverse noise impacts as well as adverse effects on personal health and safety of citizens on Groton Hollow Road.

6) Economic Impacts and Aesthetics:

The Intervenor's have provided the Committee with overwhelming evidence of the likelihood of significant and unreasonable adverse effects on aesthetics as manifested in the likelihood of property value reductions via the testimony of our expert, Mr. Michael McCann. We also believe that we have shown the committee that the Applicant has failed to meet its obligation to refute the possibility of unreasonable adverse effects on Historic Sites, particularly in the Village of Rumney.

The Intervenor's position is that the applicant has not proven that this renewable energy facility will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety pursuant to RSA 162-H:16 IV (C). We hope that the Committee agrees with our position based on the record throughout the many months of this docket. If the Committee does agree, then you are obviously required by statute to deny this certificate. In coming to this conclusion,

one needs to evaluate the risks involved with granting a certificate. This requires a judgment call that is necessarily driven by the extent of the gain that is anticipated by taking these risks, pursuant to the requirement to maintain a “balance” as noted in RSA 162-H: 1. If the gain is significant, greater risk can be justified as “reasonable”. However, if the gain is minimal or negligible, then obviously only a minimal or negligible risk can be justified. In the case of at least three categories, namely real estate valuations, health and safety risks to Groton Hollow Road residents (considering the narrow and confining nature of the road,) and the failure on the part of the Applicant to prove that there is no unreasonable risk to historic sites, the course of action seems crystal clear and this certificate cannot be granted.

If the committee ultimately does not share our conclusion in this regard, then we respectfully assert that the committee must do a risk assessment in order to demonstrate compliance with RSA 162:H.

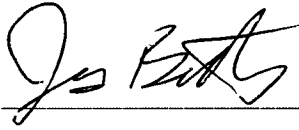
On January 10, 2011, a document titled The “Resolution Petition” was posted on the SEC website. Among the 14 clauses included within this resolution, the third clause states the following: “Whereas, with 84% of our state’s current power generated by carbon free nuclear, clean burning natural gas, and renewables like hydroelectric, replacing this base load with wind power is virtually pointless in terms of achieving the goal of reduced carbon emissions,...”. The intervenors endorse this clause from this petition and call your attention to it because it illustrates the requirement of RSA 162-H:1 very clearly. If the committee judges that the balance is “unreasonable”, as we believe is appropriate considering the minimal gain that these risks will enable, the committee must deny this certificate.

However, if the committee does not conclude that it is appropriate to deny this certificate, as an alternative in that case, we have proposed possible conditions for your consideration. These are found on “attachment A” immediately following this brief.

Respectfully submitted.

The Intervenors

By their spokesperson

A handwritten signature in black ink, appearing to read "James Buttolph", written over a horizontal line.

James Buttolph

4/1/2011

Attachment A
Conditions

Property Values

1. Given the magnitude of evidence regarding the impact on property values within a two mile radius of any turbine, the intervenors believe a property value guarantee as provided by Mr. Mike McCann will be the only form of adequate mitigation. All property owners within this radius shall be afforded proper notification and a minimum of 4 months to decide to participate. In addition, any property deemed eligible or already eligible for the National Register which lies within the viewshed of the project, regardless of the distance, shall be eligible for a PVG if desired. (See exhibit Buttolph 33 for an example).

2. The Applicant shall pay all fees and hire a consultant to handle all aspects of the nomination process of any buildings deemed eligible for the National Register. Property owners will be consulted as soon as properties are determined to be eligible, and continue to be part of the process provided they are in support of their property being a part of the National Register.

3. The Applicant shall pay the Town of Rumney the sum of \$ 75,000 to be used specifically for renovations to the Rumney Historical Society (See App. Exhibit 38, PAF Photo #110) or Byron G. Merrill Library (See App. Exhibit 38, PAF Photo #106), (both of which would be part of the Rumney Historical District should they be deemed eligible).

Fire/Safety

4. The Applicant will be required to build a primary access road to the Project area from Halls Brook Road rather than accessing the Project area via Groton Hollow Road. We believe that this mitigation is the only mitigation thus far envisioned that could adequately address the concern with traffic issues on, and possible blockage of, Groton Hollow Road, thus mitigating what would otherwise be unreasonable effects pursuant to 162:H-16 IV (C).

5. The Applicant shall purchase a brush truck according to the recommendations of the Plymouth Fire Chief, who oversees the only full time fire department in the area. The brush truck shall be kept onsite at the project, for emergency use.

6. The Applicant will provide eight hours of annual training for both Rumney and Plymouth Fire Departments as well as their Emergency Medical personnel. In addition, a one time payment of \$10,000 to the Rumney fire department to provide for new equipment will be required. The increased traffic and volume of people in the town during construction phase will significantly increase the risk of Rumney emergency services being needed.

7. A detailed emergency plan will be created and submitted to the Site Evaluation Committee for their approval. This emergency plan will include police, fire and medical personnel response for situations occurring at the project site or on the access roads.

Sound

8. Sound will be limited to 30dBA between the hours of 10pm-8am as measured at home bedrooms, or max 5dBA above ambient, as Deerfield Wind in Vermont has agreed to.

9. Complaints of sound issues by either Groton or Rumney residents will be kept in a permanent log and submitted to the SEC annually. The Applicant will provide a phone number to both the Rumney and Groton town offices. The Applicant will respond in writing to each complaint that has been voiced. After two complaints the Applicant will pay to have the town hire a sound consultant to perform sound studies. Any sound testing results which exceed the levels will require the Applicant to immediately make changes to reduce the sound levels. Possibilities include reducing hours the turbines are operational, mitigation that can be worked out between the Applicant and the complainant, to shutting down the project altogether.

10. Sound studies will be conducted post-construction and compared to pre-construction studies. The SEC along with the Counsel for the Public will hire the Consultant. The Applicant will pay for those studies. Statistical analysis will be performed on the results and submitted to the SEC within 1 year of operation. This will provide an unbiased feedback on the preconstruction studies performed and provide the SEC with a stronger data base to help in considering the next project.

Groton Hollow Road Residents

11. All residents within 3000 feet of blasting will have their wells tested prior to the blasting paid for by the Applicant.

12. If the SEC does not require the Applicant to build a primary access road off of Halls Brook Road to the Project site, then we would request the following additional conditions be imposed.

A. The Applicant will pay to have all residences and buildings structurally surveyed prior to any construction of the project site commencing.

B. The Applicant will be jointly liable along with their contractors, for any and all damage that occurs to properties on Groton Hollow Road.

C. The Applicant will not be allowed to work at the project site on Sundays for any reason. The residents of Groton Hollow Road shall be afforded one day

during the week in which they have no disruptions or inconveniences from the project site.

D. The Applicant will file an emergency plan specific to Groton Hollow Road detailing how residents will not be “trapped” in their homes if an oversized project vehicle has an unexpected event that blocks the route. The SEC must approve this plan prior to construction commencing.

E. Each Groton Hollow Road property owner will be paid \$7,800 by the Applicant prior to construction commencing. This payment will amount to approximately \$100 per week for the estimated 78 weeks it will take to complete the project and will attempt to compensate for the delays, inconveniences and loss of peace and enjoyment at their homes during the construction period.

F. The Applicant will not be allowed to widen Groton Hollow Road under any circumstance, including temporarily.

Avian

- 1) Impose post construction surveys for 3yrs, consistent with the recommendations of Public Counsel’s expert witness in this regard. Stricter requirements placed if any threatened species are killed.
- 2) Post construction studies overseen by an Audubun hired avian company, which can go on the property any time to perform studies. Post construction surveys to be compared directly to preconstruction surveys – statistical analysis conducted to determine their significance. Bat studies to be performed in a similar fashion to avian with respect to the 3 year requirement noted in #1

Visual

- 1) Applicant shall be required to utilize the latest technology in safety light pollution reduction consistent with FAA regulations.