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STATE OF NEW HAMPSHIRE

SUPREME COURT

No. 2017-0313

MARY ALLEN, BRUCE AND BARBARA BERWICK, RICAHRD AND LORANNE BLOCK, ROBERT CLELAND, KENNETH HENNINGER, JILL FISH, ANNIE LAW, JANICE LONGGOOD, MARK AND BRENDA SHAEFER, STODDARD CONSERVATION COMMISSION AND WINDACTION GROUP, APPELLANTS

FREDERICK WARD, CO-APPELLANT

V.

NEW HAMPSHIRE SITE EVALUATION COMMITTEEE

ANTRIM WIND ENERGY
INTERVENOR

CO-APPELLANT'S BRIEF

MANDATORY APPEAL PURSUANT TO
SUPREME COURT RULE 7

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QUESTIONS PRESENTED

1. Whether the SEC Subcommittee, as an administrative agency granted only limited and special subject matter jurisdiction, dependent entirely upon statutes vesting the agency with power, had subject matter jurisdiction to issue a decision when that Subcommittee was not constituted pursuant to the statutory requirements of RSA 162-H:4-a in that it had only one public member and when the initial second public member resigned early in the proceedings, the alternate public member left on maternity leave and did not preside over any adjudicative or deliberative sessions in this matter, and the Chairperson of the SEC did not seek to have the Governor and Executive Council fill the alternate public member's vacancy on the Subcommittee?

2. Whether the SEC Subcommittee's decision was unjust, unlawful, and unreasonable in that AWE's sound assessment: i.) used a ground attenuation factor contrary to the requirements of ISO 9613-2, ii.) failed to include a factor to correct uncertainty in modeling accuracy, iii.) did not produce a worst case scenario and iv.) used ISO 9613-2 as a model despite the fact that the model was not designed to produce sound assessments for low frequency sound on uneven topography for a source well over 30 meters higher than its receiver, and the Committee failed to deliberate over the dispositive meterological testimony introduced in public hearings, and simply adopted *ad hoc* findings based on AWE's expert, Robert O'Neal, and further when the Subcommittee found that the Project would not have any noise-related adverse public health or safety impacts even when the testimony clearly indicated that O'Neal's modeling failed to comply with the standards and requirements of the SEC's own administrative rules? Certified Record, Vol. II, Bk. 7 at 7304 *et. al.*; 7338 *et. al.*

3. Whether the SEC Subcommittee's decision was unjust, unlawful, and unreasonable when the Subcommittee found that the Project would not have any noise-related adverse public health or safety impacts due to AWE's representation that AWE would implement "noise reduction

operations," ("NRO") despite the Subcommittee receiving no evidence as to the "worst case" scenario and AWE and the Subcommittee having no way of determining which residences would be affected or which turbines would contribute, thereby lacking in any specific details whereby the Subcommittee could rationally deliberate concerning adequacy of the NRO's or NRO's impacts on the Project? Certified Record, Vol. II, Bk. 7 at 7304 *et. al.*; 7338 *et. al.*

4. Whether the SEC Subcommittee's decision was unjust, unlawful, and unreasonable when the Subcommittee found that the Project would not have any shadow flicker-related adverse public health or safety impacts despite the fact that the shadow flicker analysis prepared by AWE's expert, Robert O'Neal, did not comply with the requirements of the SEC's administrative rules, and improperly calculated the hours of shadow flicker to be expected from the facility, nonetheless reflected that the Project shadow flicker in excess of the maximum thresholds set forth in the SEC's administrative rules? Certified Record, Vol. II, Bk. 7 at 7304 *et. al.*; 7338 *et. al.*

5. Whether the SEC Subcommittee's decision was unjust, unlawful, and unreasonable when the Subcommittee approved the Project without acknowledging receipt of AWE's Shadow Control Protocols ("SCP's") or deliberating on their effectiveness or adequacy, when the SCP's were filed late (November 7, 2016) with the SEC Subcommittee, and only in response to questions from Fred Ward, notwithstanding AWE's representation that the Project would exceed the regulatory thresholds for shadow flicker in the absence of effective and adequate shadow control protocols ("SCP")? Certified Record, Vol. II, Bk. 7 at 7304 *et. al.*; 7338 *et. al.*

6. Whether the SEC Subcommittee's decision was unjust, unlawful, and unreasonable when the Subcommittee found that the Project would not have unreasonable adverse visual impacts, when the SEC failed to consider assessing factors used in the valuation of large outdoor structures such as billboards, based on their size, elevation, lighting and other visual impacts? Certified Record, Vol. II, Bk. 7 at 7304 *et. al.*; 7338 *et. al.*

7. Whether the SEC Subcommittee's decision was unjust, unlawful, and unreasonable when the Subcommittee found that the Project would not have unreasonable adverse aesthetic impacts, in part, because the Project would utilize radar detection lighting systems, despite the Subcommittee receiving no evidence as to the frequency, intensity, duration, or any other relevant facts associated with the operation of the radar detection lighting systems, and because the Subcommittee ignored the nighttime visual impacts of the facility especially with moonlight falling on a highly reflective winter landscapes? Certified Record, Vol. II, Bk. 7 at 7304 *et. al.*; 7338 *et. al.*
8. Whether the SEC Subcommittee's decision was unjust, unlawful, and unreasonable when the Subcommittee found that the Project would not have an unreasonable adverse impact on the orderly development of the region based upon the flawed and incomplete real estate analysis of AWE's real estate expert, Matthew Magnusson? Certified Record, Vol. II, Bk. 7 at 7304 *et. al.*; 7338 *et. al.*

CONSTITUTIONAL PROVISIONS, STATUTES, ORDINANCES, RULES, REGULATIONS

Relevant Statutes

162-H:2 Definitions.

162-H:3 Site Evaluation Committee Established.

162-H:4-a Subcommittees.

162-H:7 Application for Certificate.

162-H:7-a Role of State Agencies.

162-H:10-a Wind Energy Systems.

162-H:16 Findings and Certificate Issuance.

541:13 Burden of Proof.

Relevant Rules

Site 102.19 Definitions.

Site 301.05 Effects on Aesthetics.

Site 301.08 Effects on Public Health and Safety.

Site 301.09 Effects on Orderly Development of Region.

Site 301.14 Criteria Relative to Findings of Unreasonable Adverse Effects.

Site 301.18 Sound Study Methodology.

STATEMENT OF THE CASE/ STATEMENT OF FACTS

1. The 2012 and 2015 Applications

On January 31, 2012, Antrim Wind Energy, LLC filed an Application for Site and Facility with the SEC, seeking authorization to construct ten wind turbines along the ridgeline of Tuttle Hill in the Town of Antrim, New Hampshire, commencing the Antrim I matter. Certified Record, Vol. II, Bk. 7 at 7339. Tuttle Hill is located immediately adjacent to an environmentally sensitive nature "supersanctuary," comprised of over 34,500 acres of conservation land, a portion of which includes the dePierrefeu Wildlife Sanctuary. Certified Record, Vol. II, Bk. 7 at 7344. This supersanctuary is part of a larger initiative called the Quabbin to Cardigan Partnership, which is a collaborative effort to conserve the Monadnock Highlands of north-central Massachusetts and western New Hampshire, an area spanning one hundred miles and encompassing approximately 2 million acres. Certified Record, Vol. II, Bk. 7 at 7343.

The wind turbines in Antrim I were to have a height of approximately 492 feet. Certified Record, Vol. I, Bk. 5 at 3802-4. In addition to the turbines, AWE proposed installation of a meteorological tower. The elevation of Tuttle Hill, on which these ten turbines and the meteorological tower were to be located, ranges between 1,431 to 1,896 feet. The Project would have been visible from various sensitive scenic resources including, but not limited to, the dePierrefue Wildlife Sanctuary, Willard Pond (a Great Pond located in the interior of the Sanctuary), Bald Mountain, Goodhue Hill, Pitcher Mountain, and Gregg Lake. Certified Record, Vol. II, Bk. 7 at 7356. As a purported attempt to mitigate the aesthetic impacts associated with siting nearly 500 foot wind turbines in an ecologically significant area, AWE proposed a mitigation plan which involved the dedication of 800 acres of land to conservation easements and the implementation of radar detection lighting systems. Id.

On April 25, 2013, a subcommittee of the SEC denied the 2012 Application in a 71 page decision, following 11 days of hearings on the merits and 3 days of deliberations, wherein the subcommittee found that the proposed project would have an adverse aesthetic impact upon the area, including "significant qualitative impacts upon Willard Pond, Bald Mountain, Goodhue Hill, and Gregg Lake." The subcommittee in that case further found that the project would "have a particularly profound impact on Willard Pond and the dePierrefeu Wildlife Sanctuary." Certified Record, Vol. II, Bk. 3 at 2622-3. The subcommittee also found that the proposed mitigation plan would not suitably mitigate these unreasonable aesthetic impacts, stating that "[w]hile additional conserved lands would be of value to wildlife and habitat, they would not mitigate the imposing visual impact the Facility would have on valuable viewsheds." Id. AWE did not appeal the subcommittee's denial of a certificate of site and facility.

On October 2, 2015, AWE filed the 2015 Application, in which it sought to install nine wind turbines and a meteorological tower along the exposed ridgeline of Tuttle Hill over a distance of approximately two miles. Certified Record, Vol. I, Bk. 1 at 4. These nine turbines would be located in the same locations and at the same elevations as those proposed in the 2012 Application. Including turbine blades, eight of the turbines would be 488.8 feet tall and the ninth turbine would be 446.2 feet tall, constituting a reduction of 3.2 feet from the turbine heights in the 2012 Application (45.8 feet for turbine nine). Certified Record, Vol. I, Bk. 1 at 35; Vol. I, Bk. 5 at 3802-4. Like the 2012 Application, AWE proposed a mitigation package. This package was identical to that proposed in 2012 but provided an additional 100 acres of conservation land and a grant of $100,000.00 to the New England Forestry Foundation.[1] Certified Record, Vol. I, Bk. 4 at 2343.

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[1] Although the mitigation package styles the land grants as "conservation land," AWE has reserved the right in the conservation deeds to install and operate up to thirteen wind turbines on the conservation land for fifty years from the effective date of the lease that AWE executed to obtain the necessary real estate interests to construct the Project.

In support of the 2015 Application, AWE provided: (a) a "Visual Assessment for the Antrim Wind Project" ("VA Report") prepared by David Raphael ("Raphael") of Landworks; (b) a "Sound Level Assessment Report" prepared by Robert O'Neal (O'Neal") of Epsilon Associates, Inc.; (c) a "Shadow Flicker Analysis" also prepared by O'Neal; and (d) an analysis of the "Impact of the Lempster Wind Power Project on Local Residential Property Values Update" prepared by Matthew Magnusson ("Magnusson") of Seacoast Economics. Certified Record, Vol. I, Bk. 3 at 1763; Vol. I, Bk. 5 at 3646; Vol I, Bk. 5 at 3532; Vol. I, Bk. 4 at 3243, 3252.

Raphael's VA Report opined that the Project would not have an unreasonable adverse aesthetic impact to scenic resources. Certified Record, Vol. I, Bk. 3 at 1898-1899. The first step in Raphael's methodology was to determine the scenic resources that would have visibility of the Project, basing those scenic resources on those sites that would have visibility of the Project's hub (excluding those scenic resources that would see the Project's 185-foot spinning turbine blades but would not see the turbine hub). Certified Record, Vol. II., Bk. 3 at 2603; 2612; 2614-5. Raphael culled the list of impacted scenic resources down to ten by using a cultural and scenic-quality grading system, whereupon he analyzed the Project's effects on viewers of the ten sites based on contradictory criteria. Certified Record, Vol. I, Bk. 4 at 1815-1826; 1838. In support of his VA, Raphael also provided photosimulations of the Project at the ten sites; however, contrary to N.H. CODE OF ADMIN. R. Site 301.05, the photosimulations were taken under cloudy, hazy, and otherwise unclear conditions and with objects in the foreground. Certified Record, Vol. I, Bk. 1 at 1915-1937. Raphael also opined that the radar detection lighting systems would not have an adverse impact on aesthetics, but provided no details as to the radar detection lighting systems or how frequently those lights would be activated despite evidence of frequent jet aircraft contrails over Antrim. Certified Record, Vol. I, Bk. 3 at 1804. On cross examination by Ward, Raphael was shown a number of cards of different sizes, which were held at different heights above the heads in the room, and which were held static and moving. Raphael

disingenuously refused to acknowledge that the size, height, or the fact that the object was moving enhanced the visual impact of the cards. Certified Record, Vol. II, Bk. 3 at 2704-43. Presumably, Raphael understood that a giant sprawling wind energy facility with 9 turbines over 600 feet tall from blade to base on a ~1,500 foot exposed ridge spread over approximately two miles when lit up at night (perhaps for the benefit of an incoming plane) would dwarf the Coney Island Amusement Park with its visual impact, and therefore sought to deny this uncomfortable fact.

O'Neal's Sound Assessment sought to determine whether the sound from the Project would exceed forty-five decibels (dBA) at any time during the day and forty dBA at any time during the night at properties used in whole or in part for residential purposes. See N.H. CODE OF ADMIN. R. Site 301.14(f)(2). O'Neal predicted the sound from the turbines for property within a two-mile radius of the Project, purporting to utilize standard ISO 9613-2 1996-12-15 ("ISO 9613-2")[2] and inputting into a software program called Cadna/A the turbine height and elevation, the various properties' locations in relation to the Project, and the terrain for the Project. Certified Record, Vol. I, Bk. 5 at 3646. O'Neal applied a ground factor ("G Factor") of 0.5 (as opposed to 0.0 which would have required the addition of three dBA to predictive sound measurements) based on the assumption the sound would be partially absorbed by the ground prior to sound reaching a residence, even though the proposed turbines would be located at elevations substantially higher than the surrounding residences and send their sound waves through clear air and well above any ground cover, contrary to the theoretical assumptions underlying ISO 9613-2's computation for ground effect. Certified Record, Vol. I, Bk. 5 at 3673; Vol II, Bk. 3 at 2442-2447. O'Neal failed to take into account the differences in sound absorption between Antrim's lush green summers and leafless, frozen winters, during which icy surfaces reflect, rather than absorb, sound. Certified Record, Vol. I, Bk. 5 at 3673; cf. ISO 9613-2 §

[2] The ISO 9613-2 standard is incorporated by reference as Appendix B to N.H. CODE OF ADMIN. R. Site 300, et seq. A copy has been included in Co-Appellant's Appendix at 21.

7.3.1. O'Neal failed to provide a "worst case scenario" as required under N.H. CODE OF ADMIN. R. Site 301.18 (c)(3). Certified Record, Vol. III, Bk. 3 at 1692; Vol. I, Bk. 5 at 3674. O'Neal did not make any adjustments to the ISO 9613-2 standard to account for limitations inherent in the ISO 9613-2 standard. Certified Record, Vol. I, Bk. 3 at 2452; Vol. III, Bk. 3 at 1692; cf. ISO 9613-2 1996-12-15 § 9. O'Neal determined that the average noise level under the ISO 9613-2 model would be 38 dB. Certified Record, Vol. I, Bk. 5 at 3680. In addition, the ISO 9613-2 standard is specifically established to deal with mid-band frequency sounds in the 63 Hz to 8 kHz range, when in fact wind energy turbines produce sound in the 0 to 31.5 Hz range, making low frequency sound more penetrative than the sound waves intend for modeling in the ISO 9613-2 standard. Certified Record, Vol. II, Bk. 1 at 588-9. In sum, O'Neal's Sound Assessment made faulty assumptions, and drastically understated the noise impacts of the project, which the SEC Subcommittee failed to question, discuss or deliberate.

O'Neal's Shadow Flicker Analysis allegedly attempted to determine the extent of alternating changes in light intensity that would occur when the rotating blades of the Project are back lit by the sun and cast shadows on the ground or buildings. See N.H. CODE OF ADMIN. R. Site 102.48 (defining "shadow flicker"). O'Neal's analysis purportedly determined the amount of shadow flicker on properties within one mile of the Project under a worst-case, astronomical maximum scenario as well as the anticipated hours per year of shadow flicker expected to be perceived under anticipated meteorological conditions. Certified Record, Vol. I, Bk. 5 at 3532. 7.3.1; See N.H. CODE OF ADMIN. R. Site 102.11 (defining "astronomical maximum"). The result of the Shadow Flicker Analysis reflected that twenty-four locations would experience between eight hours and thirteen hours and forty-eight minutes of shadow flicker per year — above the eight hours per year maximum established by the SEC's rules. Certified Record, Vol. I, Bk. 5 at 3546; See N.H. CODE OF ADMIN. R. Site 301.14. O'Neal stated that the Project would implement a "shadow control method" "to ensure that the 24 locations that are conservatively expected to experience between 8 hours and 13 hours and 48 minutes

of shadow flicker per year, will not exceed a total of 8 hours per day." Id. The only evidence that AWE provided on their "shadow control" methods was contained in a response submitted on November 7, 2016 (the last afternoon of public hearings) in response to a request by Fred Ward. Certified Record, Vol. II, Bk. 5 at 5245-5247. This mitigation procedure was a vital part of their application, but the Subcommittee never once indicated that they had heard of it, let alone read it or discussed it. Yet it introduced, for the first and only time, the prospect of serious medical issues associated with the facility, such as epilepsy.

O'Neal produced a prior shadow flicker analysis in support of the project prior to rule changes. O'Neal's prior report found only 10 hours and 10 minutes of shadow flicker. Certified Record, Vol. I, Bk. 4 at 3232. The empirical difference between the two reports is based on the assumption of shadow flicker at a 1130 meter radius versus a 1610 meter radius. Because the prior report assumed impacts from turbines more than 1130 meters contributed zero shadow flicker, the model neglected shadow flicker contributions from turbines more than 1130 meters from a residence. Id. In contrast, the new model assumed no contribution from turbines more than 1610 meters from a residence, but included more sources located between 1130 meters and 1610 meters from a residence, increasing shadow flicker by three hours and thirty-eight minutes. Certified Record, Vol. I, Bk. 5 at 3546. However, neither report considered shadow flicker inputs from *all turbines comprising the energy facility* sprawling over almost two miles of Tuttle Hill, which would have required a much greater radius to consider all sources, and would likely result in much higher shadow flicker estimate. Vol. II, Bk. 5 at 2525-2531. N.H. CODE OF ADMIN. R. Site 301.14 requires that flicker analysis cover all structures "within one mile of a *wind energy project*". O'Neal, in his pre-construction model, arbitrarily limited his shadow flicker model to those residence/turbine pairs which are one mile from each other, rather than considering the aggregate impacts of the *wind energy project as a whole*, including turbines more than

one mile distant which cannot be "assumed" to contribute zero. The SEC never addressed this substantial methodological shortcoming.

In its preconstruction analysis of shadow flicker, O'Neal used the average "percent sunshine" to account for the effects of clouds in reducing the potential, astronomical, hours of shadow flicker to the actual hours. Certified Record, Vol. I, Bk. 5 at 3533; Vol. II, Bk. 2 at 2325-2326; Vol. II, Bk. 3 at 2389-2417. O'Neal's choice of these data for this purpose is scientifically invalid, as it falsely assumes that the percent of sunshine was directly and inversely related to the degree of cloudiness, when in fact the two measurements have a much different relationship. Certified Record, Vol. II, Bk. 2 at 2325-6. Given that empirical measurements of percent cloudiness are available, there is no empirical justification for using an indirect (and inaccurate) measure for percent cloudiness. However, by using percent sunshine, O'Neal did succeed in drastically underestimating the incidence of shadow flicker caused by the Project. Certified Record, Vol. II, Bk. 5 at 3539-3540. O'Neal's analysis also underestimated the incidence of shadow flicker by failing to account for changes in the apparent size of the sun caused by cloud cover. Shadow flicker is more frequent when the conditions of high, thin clouds enlarge the apparent size of the solar disk, creating more hours of shadow flicker. The methodological flaws were further compounded by using averages for cloud cover, when in fact wind blowing from the east results in much more cloud than westerly winds. Certified Record, Vol. II, Bk. 5 at 575-6. Perhaps not coincidently, all the above methodological flaws resulted in the underestimation of the shadow flicker resulting from the project.

On November 7, 2016, AWE compounded their error with a late filed proposal for monitoring and mitigating post-construction shadow flicker, which contains the same flawed assumptions concerning solar size as evident in the pre-construction shadow flicker analysis. Certified Record, Vol. II, Bk. 5 at 5245-5247. AWE further failed to consider shadow flicker effects at night under a full moon, particularly with snow cover. Given that AWE-linked shadow flicker is associated with

epileptic seizures and other health problems, the approval could have serious public health impacts. The technical errors and inadequacies of this proposal were addressed in a March 25, 2017 filing with the SEC, but the SEC never deliberated concerning the methodological short-comings of O'Neal's analysis, or the inadequacies of the monitoring and mitigation proposal in light of the serious health risks.

Magnusson's report analyzed whether the nearby Lempster Wind Project had an impact on real estate values within the region. Certified Record, Vol. 1, Bk. 4 at 3269. Magnusson's analysis was limited to completed sales of single-family homes. Certified Record, Vol. I, Bk. 4 at 3270. Magnusson did not consider properties which did not sell or had otherwise been taken off the market. Magnusson's analysis examined thousands of property sales transactions within Sullivan County, New Hampshire completed over many years (2005-2011). The data set was dominated by sales of properties situated many miles from the Lempster Wind Project where there would be no reasonable expectation of Project impacts. Certified Record, Vol. I, Bk. 4 at 3272. Based on the statistical review of completed transactions, Magnusson concluded that wind projects do not impact real estate values. Certified Record, Vol. I, Bk. 4 at 3273.

2. <u>Procedural History</u>

As a preliminary matter, state agencies with permitting and regulatory authority are permitted to participate in committee proceedings pursuant to RSA 162-H:7, including the New Hampshire Department of Environmental Services. Further, NH Department of Environmental Services did assess the application and provide testimony, but their testimony was limited to review of water quality impacts from the proposal and did not consider the public safety issues or the visual impact. New Hampshire Department of Environmental Services did not review or evaluate the purported meteorological reports on noise and shadow flicker nor the reports relating to impacts on the environment/aesthetics and property values, although meteorology is an area of expertise in the

Department. Strangely, the most important questions relating to the impact of the project, those impacting public health and surrounding development, namely noise, shadow flicker, visual impact and impacts on property values were not assessed by any state agency.

On October 19, 2015, then Attorney General Joseph Foster appointed Assistant Attorney General Mary E. Maloney to act as Counsel for the Public. Certified Record, Vol. II, Bk. 1 at 1-2. On October 20, 2015, the SEC appointed the Subcommittee to preside over the 2015 Application. The Subcommittee was comprised of Robert Scott of the Public Utilities Commission ("PUC"), Thomas Burack of the Department of Environmental Services, Kathryn Bailey of the PUC, Jeffrey Rose of the Department of Resources and Economic Development, Elizabeth Muzzey of the Division of Historic Resources, Roger Hawk as a Public Member, and Patricia Weathersby as a Public Member. Id. Commissioner Bailey would later designate Robert Clifford to sit for her, Director Burack designated Eugene Forbes to sit for him, and Director Muzzey designated Richard Boisvert to sit for her. Certified Record, Vol. II, Bk. 1 at 3-5. On December 1, 2015, the Subcommittee accepted the Application.

On December 31, 2015, Public Member Hawk resigned and died shortly thereafter. On January 11, 2016, SEC Chairman Martin Honigberg appointed Rachel Whitaker to act as an alternate public member on the Subcommittee. Certified Record, Vol. II, Bk. 1 at 6. However, Member Whitaker did not preside over any proceedings in the 2015 Application, as she went on maternity leave shortly after being appointed. Certified Record, Vol. II *et. al.*

3. Evidence Presented and Subcommittee's Decisions

Between February and August, 2016, AWE, CFP, and the Appellants (amongst other intervenors) submitted pre-filed and supplemental pre-filed testimony. See Certified Record Vol. I, *et. al.* The SEC conducted adjudicative hearings over thirteen days between September 13, 2016 and

November 7, 2016. Certified Record, Vol. 2 *et. al.* Through pre-filed testimony and the adjudicative hearings, CFP, the Appellants, and other intervenors challenged the evidence submitted by AWE.

With regard to aesthetics, CFP and the Intervenors asserted that Raphael's VA was predicated upon data inputs and methodologies that were intended to reach a predetermined result – that the Project would not have an unreasonable adverse impact on aesthetics. Specifically, the Intervenors challenged Raphael's selection of scenic resources, his methodology to determine the resources' cultural significance and scenic quality, and the view effects to those scenic resources that would result from the Project. Certified Record, Vol. II, Bk. 1 at 113-117. The Appellants further challenged Raphael's photosimulations, which did not comply with the SEC's requirements. Certified Record, Vol. II, Bk. 1 at 116-117; see also N.H. CODE OF ADMIN. R. Site 301.05(b)(8). Counsel for the Public also submitted a Visual Impact Assessment prepared by Kellie Connelly of Terraink, Inc., which concluded that the Project would have an unreasonable adverse impact on aesthetics and critiqued various aspects of Raphael's VA. Certified Record, Vol. III, Bk. 1 at 893-931; Vol. III, Bk. 5 at 5085-5243; 5256-5420.

Fred Ward introduced an official state document used to determine the property values of large billboards. Certified Record, Vol. II, Bk. 1 at 571, Vol. II, Bk. 3 at 2737. Since their value is directly determined by their Visual (Sensory) Impact, this document was presented for the Committee to understand the factors which have been determined to attract attention. It was presented to the Committee as a more relevant way to determine the Visual Impact of large outdoor structures, in place of 8 ½ x 11 pictures. The document showed, as expected, that the factors that garner attention are the size, height, noise, motion, lighting, etc. Taken together, these are the factors that determine the Visual Impact of large outdoor structures. One key measure of the Visual Impact of the facility is the amount of time a passersby would turn his/her attention to it, e.g. increased visual impact. In addition to its obvious visibility, the noise, blade motion, continually changing aspect, flashing lights, etc., are

all attention-getters. The Committee never discussed or deliberated on the added Visual Impact resulting from these "non-visual" features.

On 23 September 2016, AM session, Fred Ward conducted a cross-examination of AWE witness Raphael on the question of the Visual Impact of the facility. Certified Record, Vol. II, Bk. 3 at 2712 *et. al.* The questions and answers showed a marked difference of opinion between Ward and Raphael on the factors (size, height, noise, lighting, motion, etc.), let alone their totality, which would affect the Project's visual impact. Id. Raphael never conceded that any one of these factors would necessarily increase its visual impact. Id. Yet, despite the proposed facility being bigger, higher, more exposed, and noisier than any comparable site in southwestern New Hampshire, and in constant motion, and with flashing lights, not one member of the Subcommittee asked Raphael a single question about the added visual impact of the facility's huge size, its isolated location, its substantial elevation relative to the surrounds, its 24-hour noise, or its lighting.

The Subcommittee was presented with many reasons why there would be a substantial Visual Impact at night. However, the Subcommittee decided on its own to consider only one factor, the flashing lights required by the FAA. Certified Record, Vol. II, Bk. 6 at 6130-7. The Subcommittee spent time over two sessions discussing the radar system proposed by AWE, requiring its use. Certified Record, Vol. II, Bk. 6 at 6130-7; Vol. II, Bk. 7 at 6680. Other nighttime visual impacts were never discussed nor deliberated, and appear nowhere in the proceedings. The notes that do appear, in the 12 December 2016 Deliberations have two interesting comments. Member Weathersby states "the Applicant indicates that they virtually eliminated any nighttime visual impact through its commitment to employ an aircraft detection lighting system", and Member Clifford summarized the Subcommittee's approach saying "and why the nighttime visual effects were never analyzed and dealt with period". Certified Record, Vol. II Bk. 7 at 6680-1.

The use of the radar-controlled lighting system in the AWE proposal required the Committee to determine how often the neighbors would be awakened by planes passing the facility, causing the tower lights to flash, and for how long. A competent meteorologist would have noted the frequent occurrence of contrails over Antrim. Frequent aviation activity over the site, day and night, would necessitate frequent operation of the radar-controlled flashing lights on the facility, and cause negative impacts to surrounding properties, but this issue was never acknowledged nor discussed by the Subcommittee. The SEC Subcommittee, skipped over any commentary or deliberation on this issue, merely stating that the nighttime Visual Impact was irrelevant. The Subcommittee ignored the bright full moonlight of winter, its 15 hour nights, its added reflections of highly reflective snow and ice surfaces, the extreme adaptation of the human eye to changes in its sensitivity to the lower nighttime levels, let alone the planned winter nighttime hikes in the outdoor wilderness.

The Intervenors also challenged the conclusions and methodologies set forth in O'Neal's Sound Assessment. ISO 9613-2 1996-12-15 at § 9 "Accuracy and limitations of the method: Table 5" provides that estimated accuracy of equations (1) through (10) [including the equation for ground effect] assumes a height difference of the source and the receiver of no more than 30 meters. Equation (9), the equation used to compute ground effect, is "limited to approximately flat terrain." The testimony from Intervenors and other participants noted that the ISO 9613-2 standard advised that use of a ground attenuation factor, or ground effect factor, is not applicable when predicting noise sources that are at high elevations or situated on uneven terrain, as is the case with the AWE's application. In order to omit the ground factor component, consistent with the ISO 9613-2 standard, a ground factor of 0.0 should have been input into the CADNA/A product used by O'Neal, which would have increased modelled sound levels by at least three dBAs. Certified Record, Vol. II, Bk. 5 at 5051-5052; Vol. I, Bk.2 at 2300-2305; see also ISO 9613-2 1996-12-15 at § 7.3.1 (titled "Ground effect: General method of calculation").

In addition to use of a "ground factor" not justified under the ISO 9613-2 given the extreme height of the sound sources over the receiver, and the uneven terrain, O'Neal failed to incorporate any corrective factor to account for modeling deficiencies. The Intervenors further noted that O'Neal should have further adjusted his predictive sound model to account for deficiencies in the ISO 9613-2 standard, which would have resulted in increased modelled sound levels by between three and five decibels. Certified Record, Vol. I, Bk. 1 at 590-2; Vol. I, Bk. 2 at 2295; Vol I., Bk. 5 at 4724-4730; ISO 9613-2 1996-12-15 at § 9 (titled "Accuracy and limitations of the method"). The Intervenors presented extensive evidence in support of these model adjustments, some of which were cited by O'Neal in his own testimony, and in addition, presented Richard James of E-Coustic Solutions who further corroborated the need for adjustments under the ISO 9613-2 standard. Certified Record, Vol. II, Bk. 1 at 579-593. It is clear that O'Neal's sound assessment does not reflect the "worst case scenario" as required by N.H. CODE OF ADMIN. R. Site 301.18(c)(3). Certified Record, Vol. I, Bk. 5 at 3674; Vol. II, Bk. 5 at 5054. The evidence and testimony submitted by the Appellants reflected that the Project could be expected to result in exceedances of the forty-five dBA daytime and forty dBA nighttime sound levels provided by the SEC's administrative rules. See N.H. CODE OF ADMIN. R. Site 301.14(f)(2).

In response to these criticisms, O'Neal, for the first time during the proceedings, stated that the Project would not result in exceedances because AWE could implement NRO to reduce sound-levels. Certified Record, Vol. II, Bk. 2 at 2230-2231. No further details or specifics were provided as to how NRO would operate, when it would be triggered, or what impact it would have on the Project's operations. One AWE official testified that AWE had high confidence in O'Neal's noise predictions and further testified that AWE had taken no action to determine how application of NRO would impact the financial analysis for the Project. Certified Record, Vol. II, Bk. 2 at 1359.

AWE never presented a coherent plan to monitor the post-construction noise. The AWE response to the monitoring was the claim that AWE could always reduce the capacity somewhat, reducing the noise below the required level. However, the noise levels and the preferential direction of loudest broadcast will be geographically and topographically dependent, and very dependent on the wind direction. Some areas will frequently get lots of noise, and louder noise, than other areas, and at different times of the day and night. Yet the committee never requested AWE to supply information on this well-expected effect, and they never determined, or identified, which neighbors were most likely to hear the greatest, and most frequent, noise. Although there was a good deal of discussion of who should be responsible for monitoring noise, and what AWE may do, or not do, to mitigate noise problems, but there was no plan.

One of the more interesting Committee comments was by the Chair (15 September 2016, AM, p107). "the Applicant to conduct sound studies .... to respond to sound-related complaints". Certified Record, Vol. II, Bk. 6 at 6351-4. Such comments merely highlight the almost insoluble problem of quickly mitigating loud noises in the middle of the night. The noise from the turbines is directly related to the wind speed, which is highly variable, with many gusts. Any noise exceedances therefore would be expected to be of short duration, but repetitive. Such mitigation would therefore necessarily have to be applied for extended periods when the wind speeds were below the level at which the turbines would make excessive noise. This problem would be further exacerbated by the variability of the wind speeds around the particular topography of the site. The applicant has done no studies of how peculiar the wind gusts will be at the site, nor which turbines will be the culprit as the wind direction changes. Since these mitigations would be required when the turbines were operating at their maximum capacity, the resulting pre-mitigation would substantially reduce the efficiency of the project. The record shows that the Committee did not request, or receive, the information on the lost efficiency from mitigating noise, or how the applicant would know when a

worst case was happening. The most important difficulty is that AWE has no way to know which turbine (or turbines) is causing the noise, because they never determined the meteorological events which could cause them. This leaves the unresolvable problem of which turbines to shut down if the facility is exceeding allowable sound levels or approaching those levels.

The Intervenors further challenged O'Neal's Shadow Flicker Analysis, asserting that the Project would exceed the SEC's minimum standards and further noting for the SEC the lack of detail and specifics associated with the purported "shadow control" methods to be implemented by AWE. Certified Record, Vol. II, Bk. 5 at 5245. The Intervenors demonstrated that O'Neal's misuse of sunshine data was irrelevant for the stated purposes of correcting for the effects of cloudiness, and was never intended or collected for such a purpose. Certified Record, Vol II., Bk. 3 at 2413-2417; Vol II, Bk. 2 at 2327-2339.

Strangely, despite cross examination of O'Neal, Raphael and Magnusson's reports by the Co-Appellant, and clear scientific differences between O'Neal and Ward's respective positions, the SEC Subcommittee exhibited a total lack of curiosity about the scientific disagreements. Certified Record, Vol II, Bk. 6 at 6325-6350. SEC Subcommittee member Forbes, a ground water expert from the NH Division of Environmental Services, was a member who should have possessed the rudimentary scientific training to understand the dispute, but asked only one softball question of O'Neal, and had no cross-examination questions for Ward. The same unexplained silence afflicted the rest of the Subcommittee. Certified Record, Vol II, Bk. 5 at 5076-5079.

The SEC deliberated on December 7, 9, and 12, 2016, during which the SEC, by a vote of 5-1, found that the Project did not present unreasonable adverse impacts to aesthetics or public health and safety and would not unduly interfere with the orderly development in the region. See also RSA 162-H:16, IV. On March 17, 2017, the SEC formally issued a written decision in which it found that the Project would not have unreasonable adverse impacts and issued a Certificate of Site and Facility.

The Subcommittee also found that, although the Project would result in adverse aesthetic impacts, those impacts would not be unreasonable, based, in part, on the mitigation package proposed by AWE. With regard to noise, the Subcommittee found that the Project would not have any unreasonable adverse effects to public health and safety because AWE "demonstrated that it has the technical capability to decrease the Project's noise by curtailment or implementation" of NRO. As for shadow flicker, despite AWE's own expert acknowledging that the Project would exceed acceptable levels with regard to shadow flicker, the Subcommittee only stated that the Project will not have unreasonable adverse effects on public health and safety if it did not produce more than eight hours of shadow flicker each year and imposed a condition on AWE that AWE was to submit a report of the amount of shadow flicker produced by the Project on a semi-annual basis. This last conclusion in spite of the fact that there was never an agreed procedure for determining or tracking hours of flicker.

On March 25, 2017, the Meteorological Intervenors filed a Motion to Rehear, to which AWE objected on April 5, 2017. Certified Record, Vol. II, Bk. 7 at 7304. The Appellants filed a Joint Motion for Rehearing on April 14, 2017, in which the Appellants asserted that the Subcommittee's determinations with regard to res judicata/collateral estoppel, aesthetics, sound, shadow flicker, and orderly development (amongst other matters) was unjust, unlawful, and unreasonable. Certified Record, Vol. II, Bk. 7 at 7338. The Appellants, observing that Member Whitaker had not presided over any of the adjudicative or deliberative hearings, further argued that the Subcommittee was unlawfully constituted. Id. CFP filed a Motion for Rehearing and Reconsideration on April 17, 2017, in which it raised concerns similar to the Intervenors. Certified Record, Vol. II, Bk. 7 at 7417; 7459.

AWE objected to the Joint Motion for Rehearing and CFP's Motion for Rehearing and Reconsideration on April 24 and 25th respectively. Certified Record, Vol. II, Bk. 7 at 7417, 7459.

On May 5, 2017, the Subcommittee denied the various motions for rehearing at a public hearing. During the public hearing, the Subcommittee frequently expressed its position that it had fully "vetted" the issues raised by the various moving parties and that no evidence was presented which caused the Subcommittee to reconsider its determination. Certified Record, Vol. II, Bk. 6 at 7507, 7622.

SUMMARY ARGUMENT

The proceedings of the SEC Subcommittee and the resulting decision represent a perfect storm of regulatory failures, unvetted junk science, and a literal failure to have even one committee member to speak for and represent the interests of public. The most significant and adverse effects upon the public, specifically, noise, shadow flicker, aesthetic impacts, impacts on property values and safety were never vetted by any state regulatory agency prior to this approval. During the public hearing, Fred Ward and others demonstrated that the "scientific work product" produced in support of the application did not meet the literal requirements of SEC Site 301.18. AWE never produced a "worst case" analysis for noise, and the analysis they presented did not meet the requirements of ISO 9613-2 1996-12-15. AWE never produced a "shadow flicker" analysis for the "energy facility" pre- or post-construction, it considered shadow flicker from individual point sources and only when it found unreasonable shadow flicker did it then consider aggregate effects. There was no deliberation regarding the effectiveness of proposed means to mitigate post-construction shadow flicker. Last, the Subcommittee failed to consider the aesthetic impacts of the project consistent with the guidelines produced by Ward, and considered a report on the proposed changes in property value that sampled properties outside the area of impact of the project and did not consider properties taken off the market. Approval of the application was unreasonable, unlawful and unjust.

ARGUMENT

I. STANDARD OF REVIEW

RSA 541:13 provides that the decision of an administrative committee are prima facie reasonable, and the appealing party is required to show by a preponderance of the evidence that the decision is unreasonable or unlawful.

II. SUBCOMMITTEE FAILED TO REQUIRE NOISE ASSESSMENT CONSISTENT WITH REQUIREMENTS OF SEC SITE 301.18(c).

N.H. CODE OF ADMIN. R. Site 301.18(c)(1) requires the Applicant to utilize the standards of ISO 9613-2 1996-12-15, but N.H. CODE OF ADMIN. R. Site 301.18(c)(4) requires adjustments for other model algorithm error. AWE's meteorologist employed an equation (denoted "Equation (9)" in the ISO 9613-:1996 (E) § 7.3.1) and assumed ground factor G of .5 in his noise calculation. The ISO 9613-2 standard prescribes that Equation (9) may only be used for a noise source on ground that is "approximately flat either horizontally or with a constant slope" and that is no more than thirty meters higher than the receiver. See ISO 9613-2 1996-12-15 at § 9 (titled "Accuracy and limitations of the method"). The turbines in this instance are located on a prominent exposed ridge that does not have a constant slope and exceeds thirty meters in height. AWE's noise report did not conform to the requirements of ISO 9613-2, as was demonstrated in cross examination and testimony from Fred Ward, and which was never the subject of deliberations or determinations.

N.H. CODE OF ADMIN. R. Site 301.08 (a)(1) requires a "sound impact assessment prepared in accordance with the professional standard by an expert in the field." The Applicant sound impact assessment did not make appropriate adjustments, e.g. margin of error, to its model to account for express limitations in the ISO 9613-2 standard. N.H. CODE OF ADMIN. R. Site 301.18 (c) (4); ISO 9613-2 1996-12-15 at § 9 (titled "Accuracy and limitations of the method"). AWE concedes that they failed to include any margin of error for their computation, but claims that they did not as Table 5,

which prescribes the appropriate margin of error, was not applicable to a sound source with a height exceeding the receiver by 30 meters. Memorandum in Support of Motion of Antrim Wind Energy for Summary Affirmance of the Order of the Site Evaluation Committee Dated March 17, 2017. However, the Applicant fails to note that this also entails that ISO 9613-2 was not scientifically appropriate for assessing the sound effects of the project, given the extreme height of the sound sources, the uneven terrain, and the low frequency/highly penetrative sound waves in the 0-31.5 Hz range, all of which fall outside the theoretical limitations of the model. ISO 9613-2 1996-12-15 at § 9; Certified Record, Vol. II, Bk. 1 at 588-9. It is absurd that that a model intended to model a sound source emitting mid-range sound waves at a minimum of 63 Hz and a receiver on a level plane that differ no more than 30 meters in height and which would include a standard empirical margin of error within the theoretical parameters of the model would mysteriously have NO empirical margin of error when applied (inappropriately) to predict the effects of a sound source located on a high ridge emitting low frequency/highly penetrative sound waves over a highly reflective surface (in winter months) on a receiver hundreds of meters below, which grossly exceeds all the theoretical assumptions of the model. There is always a margin of error between a theoretical model and a real project, and O'Neal's "Platonic Ideal" of a noise analysis does not predict or describe the noise impacts of the project and does not represent a "professional" work product. For this reason, N.H. CODE OF ADMIN. R. Site 301.18 (c)(4), consistent with ISO 9613-2, requires a corrective factor for model algorithm error.

In addition to not complying with the ISO 9613-2 standard, AWE failed to provide a "worst case" analysis as required under N.H. CODE OF ADMIN. R. Site 301.18 (c)(3). ISO 9613-2 states that its use is limited to two conditions: "moderate downwind conditions of propagation" and "a variety of meteorological conditions as they exist over months or years". ISO 9613-2 1996-12-15 at § 9 (titled "Accuracy and limitations of the method"). Further, the mathematical analysis utilized by AWE's meteorologist specifically utilized the mathematical formulations for "moderate downwind

conditions of propagation", and clearly not the "worst case" as required by the administrative rules. Id. O'Neal's sound assessment relying on ISO 9613-2 can in no way constitute a "worst case" model. The worst cases will only occur when the turbines are generating their maximum noise, and there is little or no absorption of the noise sent out to its neighbors. This worst case noise will only occur in specific weather events, which the applicant failed to identify, or calculate the turbine noise levels under such circumstances. The Applicant further assumed highly absorbing ground, when in fact, during the seven months of winter in Antrim, the sight-line to the turbines will be almost completely unobstructed, and there will often be a highly reflective icy ground, both being the opposite of the highly absorbing ground assumed by AWE. Whatever the "worst case" might be, it is not determined by ignoring the acknowledged theoretical limitations of the model contrary to N.H. CODE OF ADMIN. R. Site 301.18(c)(4), nor in making rosy assumptions about ground absorption, when icy and reflective ground covering is a fact of life for many months of the year. It is clear that the Applicant did not comply with the basic requirements of N.H. CODE OF ADMIN. R. Site 301.18, did not comply with ISO 9613-2 1996-12-15, did not present the "worst case", and the Subcommittee unjustly, unlawfully, and unreasonably approved the project without requiring compliance with N.H. CODE OF ADMIN. R. Site 301.18.

The Applicant's claims of noise reduction mitigation technology did not result in the production of evidence of this technology, nor was there any public discussion of the effectiveness or limitations of the proposed mitigation efforts, making it impossible for the Subcommittee to make an informed determination consistent with N.H. CODE OF ADMIN. R. Site 301.14 (f)(1) concerning the "potential adverse effects" on "public health and safety" and "the effectiveness of measures undertaken . . . to mitigate such potential adverse effects, and the extent to which such measures represent best practical measures". The Applicant did not identify the conditions which would produce excess noise, requiring mitigation, e.g. a "worst case" analysis consistent with Site

301.18(c)(3), and therefore the Applicant has no idea which residences and which turbines are associated with such noise, and therefore, has no coherent plan for noise mitigation. Instead, through hand-waving and legerdemain, AWE assured the Subcommittee that its mitigation technology would magically solve the noise issues, and the Subcommittee accepted the testimony without inquiry, deliberation or any meaningful verification. A condition requiring subsequent monitoring over an annual period will do nothing to protect surrounding residents subjected to loud and excessive noise in the middle of the night, particularly where AWE has a vested economic interest insuring that there is no "excessive noise". If the project is built, it will operate, and neighbors will spend years in the court system seeking judicial intervention as a result of regulatory and administrative failure.

III. SUBCOMMITTEE FAILED TO REQUIRE RELEVANT SHADOW FLICKER ASSESSMENT AND APPROVED CERTIFICATE IN VIOLATION OF SEC SITE 301.14 (f)(2)(b).

N.H. CODE OF ADMIN. R. Site 301.14 (f) requires:

> In determining whether a proposed energy system will have an unreasonable adverse effect on public health and safety, the committee shall: . . . (2)(b) with respect to shadow flicker, the shadow flicker caused by the applicant's energy facility during operations shall not occur more than 8 hours per year or within any residences, learning spaces, workplace, health care setting, outdoor or indoor public gathering area, or other occupied building.

The Applicant failed to produce a model of expected shadow flicker for the proposed *wind energy facility*, looking only at individual turbines within 1 mile of a residence. While N.H. CODE OF ADMIN. R. Site 301.08 (a)(2) provides as a *minimal threshold* an analysis of impacts over one mile from the facility assuming a one-mile impact area from turbines, it is clear that the minimum threshold would only apply to a smaller, New Hampshire-sized wind energy facility which did not sprawl for approximately two miles, in which case assuming a one mile area of impact would be appropriate and would adequate to model shadow flicker for the totality of the wind energy facility. However, use of the minimal assumptions for a project sprawling over a mile on Tuttle Hill will not provide an accurate model of

shadow flicker from the totality of the wind energy facility consistent with N.H. CODE OF ADMIN. R. Site 301.14 (f)(2)(b). It is also clear in the record that based on the drastic change in predicted shadow flicker that resulted by changing the impact radius from 1130 meters to 1610 meters in the two models submitted by the Applicant (resulting in an increase in predicted shadow flicker by over 3 hours and 38 minutes), that use of a wider radius (incorporating the scale of the project) would likely increase the projected shadow flicker even more. Using the most minimal impact assumption to assess shadow flicker from the proposed wind energy facility did not and could not accurately model the preconstruction shadow flicker impact from the proposed the wind energy facility. Certified Record, Vol. I, Bk. 4 at 3232; Certified Record, Vol. I, Bk. 5 at 3546. The assumption of no impact past 1610 meters was not valid given the size and scope of the project, and the significant changes in the modeling as a result of increasing the impact radius 480 meters. Leaving aside flawed assumptions in the Applicant's shadow flicker models, the model did not allow the Subcommittee to accurately and reliably make a determination as required under N.H. CODE OF ADMIN. R. Site 301.14 (f)(2)(b). In addition, the sunshine data and the model used to determine the expected hours of shadow flicker, pre-construction, was scientifically invalid and technically irrelevant to its determination.

The Applicant additionally manipulated the proceedings in order to avoid public attention to the adequacy and effectiveness of its post-construction shadow flicker mitigation measures. No such plans were introduced into the proceedings until the afternoon of the last day of the public hearing, on November 7, 2016, despite questions raised by Ward on September 29, 2016. Because the measures were introduced at the eleventh hour, there was no opportunity for public discussion of the measures (let alone study or comment), nor did the SEC Subcommittee deliberate with respect to their adequacy or appropriateness, notwithstanding the fact that the Applicant's model—albeit flawed—demonstrated shadow flicker levels exceeding the requirements of the administrative rules. SEC Site 301.14 (f)(3). While this Court may defer to an administrative body, it is unclear why that presumption

is justified when that body has failed to assess or deliberate over the adequacy of mitigation measures which are intended to resolve a clear violation of the legal thresholds for a wind energy project. The Subcommittee unjustly, unlawfully, and unreasonably approved the project without requiring compliance with N.H. CODE OF ADMIN. R. Site 301.18 in that it failed to require a shadow flicker analysis that complied with N.H. CODE OF ADMIN. R. SITE 301.18(a)(2), and it failed to deliberate, discuss or analyze the adequacy of the proposed shadow flicker mitigation plans.

IV. SUBCOMMITTEE FAILED TO APPLY SITE 301.05(b)(6)(f.) AND PROPERLY CONSIDER VISUAL IMPACT OF DEVELOPMENT

Site 301.05 requires both the Applicant to address, and the SEC Subcommittee to deliberate on visual impacts of the project. Specifically, N.H. CODE OF ADMIN. R. Site 301.05 (b)(6)(f.) requires "a characterization of the potential visual impacts of the proposed facility, and of any visible plume that would emanate from the proposed facility. . . the scale, elevation, and nature of the proposed facility relative to the surrounding topography and existing structures". The opportunity to consider the impacts of the project consistent with N.H. CODE OF ADMIN. R. Site 301.05 (b)(6)(f.) was offered to the Subcommittee through the testimony of Fred Ward, and accompanying materials relating to the assessment, based on visual impact, of billboards. The value of a billboard is based on its visual impact, and its visual impact is affected by its size, elevation and its sound and lighting conditions. Likewise, the visual impact of an elevated and massive wind energy complex at high altitude spanning two miles and emitting sounds and lights, would be similarly significant, and not easily represented in a static picture. This testimony was ignored, and the Subcommittee relied on static and small pictures in making its deliberations, without considering the "scale, elevation and nature of the proposed facility relative to the surrounding topography". Likewise, the Site Rules do not limit "visual impact" to only the daytime, and the failure to consider nighttime visual impacts was unreasonable.

V. SUBCOMMITTEE FAILED TO PROPERLY CONSIDER ORDERLY DEVELOPMENT OF REGION

The Subcommittee acted unlawfully, unreasonably, and unjustly when it found that the grant of a Certificate of Site and Facility would not interfere with the orderly development of the region. AWE's real estate analysis had several material flaws, including Magnusson's failure to consider properties that were removed from the real estate market or had not sold. Certified Record, Vol. 2, Bk. 2 at 2192-3. The flaws are further corroborated by comments from residents of the nearby Lempster Wind Project — which Magnusson studied to arrive at his real estate value conclusion — that the Lempster Wind Project caused properties to be unable to sell. Further, Magnusson acknowledged there were at least two property assessments in Lempster that indicated a decline in property values due to the Lempster Wind Project. Certified Record, Vol. 2, Bk. 2 at 2175-2182. Magnusson insisted these assessments were outliers and not indicative of the general effect of the Lempster Wind Project facility on real estate values; however, such a claim by Magnusson cannot negate the fact that an independent assessor concluded that there was a loss in property value as a result of a wind facility.

Notwithstanding the problems with the evidence, and even though the Subcommittee admitted that it was not "convinced that the Project will [not have] any effect on values of some properties," the Subcommittee's rejected a "property value guaranty," which would have provided necessary protection of property owners' interests should the Project impact property values. The Subcommittee declined to adopt a "property value guaranty" based on a lack of evidence as to the adoption of a property value guaranty in prior instances. The Subcommittee, however, rejected evidence which would have specifically demonstrated the use of a property value guaranty in prior instances under the erroneous determination that such evidence was not "relevant or material to the issues before the Subcommittee." In other words, the Subcommittee acknowledged that the Project may have adverse impacts on property values but granted approval for the Project without any

safeguards for property owners after it rejected evidence which would have supported the imposition of a necessary safeguard.

VI. SUBCOMMITTEE NOT PROPERLY CONSTITUTED BY STATUE

The SEC Subcommittee was improperly constituted and lacked subject matter jurisdiction to render its decision. Administrative agencies lack any inherent powers to exercise subject matter jurisdiction or otherwise adjudicate disputes. Administrative agencies "are granted only limited and special subject matter jurisdiction." In re Campaign for Ratepayer's Rights, 162 N.H. 245, 250 (2011). The composition of the Site Evaluation Committee ("SEC") is governed by RSA 162-H:3, which specifically pursuant to RSA 162-H:3 specifically requires two members of the public be appointed to the committee. The statute further prescribes in RSA 162-H:3 XI.:

> If at any time a member must recuse himself or herself on a matter or is not otherwise available for good reason. . . [I]n the case of a public member, the chairperson shall appoint the alternate public member, or if such member is not available, the governor and council shall appoint a replacement upon petition of the chairperson. The replacement process under this paragraph shall also be applicable to subcommittee member under RSA 162-H:4-a.

Note that RSA 162-H:3 defines what is necessary for a properly constituted SEC Committee and SEC Subcommittee. It is uncontested that Member Whitaker of the SEC Subcommittee was not available for any public proceedings related to the application other than a public presentation on February 22, 2016, creating a *de facto* vacancy on the Subcommittee for 10 months duration, rendering the Committee improperly constituted.

Antrim Wind Energy misconstrues the question of whether the Subcommittee was properly constituted with the question of whether the Subcommittee possessed a quorum. In the first instance, there must be a properly constituted Subcommittee in order for the SEC to exercise subject matter jurisdiction. "'Committee' means the site evaluation committee established by this chapter." RSA 162-H:2 V. This legal question precedes, and supersedes, the question of whether there was a quorum.

If the SEC Subcommittee was improperly constituted contrary to statute, then it lacked subject matter jurisdiction to adjudicate the application, regardless of whether it possessed a quorum. According to 73 C.J.S. Public Administrative Law and Procedure § 186:

> In the absence of a general rule for determining when failure on the part of an administrative agency to follow an obligatory procedure may serve to invalidate its action, the issue whether an administrative action is to be invalidated because of noncompliance with a statutory requirement arises only when the legislative words make compliance obligatory.

The requirement to appoint a public member to the SEC Committee and/or Subcommittee is mandatory, and the failure to conduct the proceedings without a public member present invalidated the decision of the SEC. Application of Puget Sound Pilots Ass'n, 63 Wash.2d 142, 148, 385 P.2d 711, 715 (Wa. 1963)(Absence of Director of Labor and Industries of the State of Washington and illegal delegation to appointee result in improper constitution of Board of Pilotage Commissioners and divested the board of subject matter jurisdiction); see also Anaconda Co. v. Department of Revenue, 278 Ore. 723, 565 P.2d 1084 (1977)(failure to comply with statutory procedure affording tax payer an opportunity to confer with department invalidated subsequent tax assessment).

Antrim Wind Energy cites the case of Appeal of Keene State College Educ. Ass'n. NHEA/NEA, 120 N.H. 32 (1980) which held that a quorum of the PELRB did not require the presence of the labor representatives at the time of the issuance of a decision or during rehearing. However, Appeal of Keene dealt with the absence of the labor representatives at the time the PELRB issued a decision, not the absence of labor representatives during the entire adjudication of the complaint. In this matter, it is not the case that the public representative absented herself from the issuance of the decision; she was unavailable due to a medical condition during the months of proceedings. Further, the judicial result of Keene State College Educ. Ass'n was subsequently overturned by operation of the legislature and under the current statute, RSA 273-A:2 III., a different result would be required. Appointments to boards and subcommittees such as the Site Evaluation

Committee are intended to insure that representatives of certain interests have a role in the factual finding and in deliberations. The idea that this application could be approved without any involvement by the individual charged with representing the public and the public interest makes a mockery of the legislative intent in enacting RSA 162-H.

As a secondary matter, Antrim Wind Energy raises the point that the subject matter jurisdiction of the SEC Subcommittee was never directly raised during the proceedings, and is therefore waived. "A party may challenge subject matter jurisdiction at any time during the proceeding, including on appeal, and may not waive subject matter jurisdiction." Gordon v. Town of Rye, 162 N.H. 144, 149 (2011); State v. Demesmin, 159 N.H. 595, 597 (2010)("Subject matter jurisdiction may be raised at any time in the proceedings, including on appeal, by the parties, or by the court *sua sponte*."). The SEC Subcommittee was not properly constituted, and consequently lacked subject matter jurisdiction, and its decision is void *ab initio*.

Conclusion

The proceedings of the SEC Subcommittee and the resulting decision represent a perfect storm of regulatory failures, unvetted junk science, and a literal failure to have even one committee member to speak for and represent the interests of the public. The most significant and adverse effects upon the public, specifically, noise, shadow flicker, aesthetic impacts, and impacts on property values were never vetted by any state regulatory agency prior to this approval. During the public hearing, Fred Ward and others demonstrated that the "scientific work product" produced in support of the application did not meet the literal requirements of N.H. CODE OF ADMIN. R. Site 301.18. AWE never produced a "worst case" analysis for noise, and the analysis they presented did not meet the requirements of ISO 9613-2 1996-12-15. AWE never explained how it would manage situations when operations exceeded noise levels, save through vague invocations of Noise Reduction Operations ("NRO") which remained unexamined in terms of effectiveness. AWE never produced

a "shadow flicker" analysis for the "energy facility", it considered shadow flicker from individual point sources and only when it found unreasonable shadow flicker did it then consider aggregate effects. There was no deliberation regarding the effectiveness of proposed means to mitigate post-construction shadow flicker. Last, the Subcommittee failed to consider the aesthetic impacts of the project consistent with the guidelines produced by Ward, and considered a report on the proposed changes in property value that sampled properties outside the area of impact of the project and did not consider properties taken off the market. Approval of the application was unreasonable, unlawful and unjust.

WHEREFORE, for all the reasons set forth above, Appellant respectfully requests that this Honorable Court:

A. Declare the Action of the SEC Subcommittee void ab initio; in the alternative;

B. Revoke the Certificate of Site and Facility;

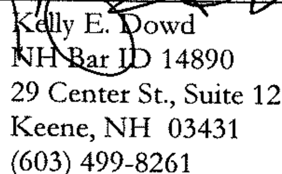
C. Remand for Reconsideration of the Application Consistent with the Court's Decision;

D. For such other and further relief as may be equitable and just.

Respectfully submitted,

by hiss attorneys
The Law Offices of Kelly E. Dowd, PLLC

Dated: November 15th, 2017

By: 

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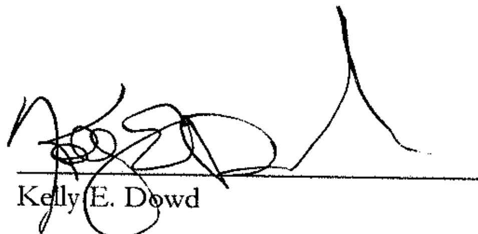
CERTIFICATE OF SERVICE AND REQUEST FOR ORAL ARGUMENT

I hereby certify that copies of the foregoing Brief was mailed first class on this 15th day of November, 2017 to Counsel for the Site Evaluation Committee, Michael J. Iacopino, Esq. of Brennan, Caron, Lenehan & Iacopino, 85 Brook St., Manchester, NH 03104, and Counsel to Antrim Wind Energy, Barry Needleman, Esq., Rebecca S. Walkley, Esq., and Wilbur A. Glahn, III, Esq. of McLane, Graf, Raulerson & Middleton, 11 South Main St., Suite 500, Concord, NH 03301, and Counsel to the Appellants, Eric A. Maher, Esq.of Donahue, Tucker & Ciandella, PLLC, 225 Water Street, Exeter, NH 03833 and and Counsel for the Public, Mary Maloney, Esq., of New Hampshire Attorney General, 33 Capitol St., Concord NH 03301-6397, and Justin C. Richardson, Esq. of Upton and Hatfield, LLP, 10 Centre Street, PO Box 1090, Concord NH 03302-1090.

The Co-Appellant respectfully requests oral argument before the full Court, and time to address the Court, not to exceed 15 minutes.



Kelly E. Dowd

STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

Docket No. 2015-02

Re: Application of Antrim Wind Energy, LLC for a Certificate of Site and Facility

March 17, 2017

ORDER AND CERTIFICATE OF SITE AND FACILITY WITH CONDITIONS

WHEREAS, Antrim Wind Energy, LLC (Antrim Wind or the Applicant), filed an Application for a Certificate of Site and Facility (Application) with the Site Evaluation Committee (Committee) to site, construct, and operate 9 Siemens SWT-3.2-113 direct drive wind turbines capable of generating 3.2 MW each, for a total nameplate capacity of 28.8 MW and associated civil and electrical infrastructure (Project) to be located in the Town of Antrim on the Tuttle Hill ridgeline spanning southwestward to the northeastern slope of Willard Mountain (Site);

WHEREAS, the Project will consist of 9 Siemens SWT-3.2-113 direct drive turbines each with a nameplate generating capacity of 3.2 MW with a total nameplate capacity of 28.8 MW. Each turbine that the Applicant seeks to install will consist of: (i) a tower; (ii) a nacelle; and (iii) a rotor with three blades. The towers for turbines 1-8 will each be 92.5 meters tall and the tower for turbine 9 will be 79.5 meters tall. Each rotor will be 113 meters in diameter. The total turbine height from foundation to blade tip for turbines 1-8 will be 488.8 feet and for turbine 9 will be 446.2 feet;

WHEREAS, the Project will also include turbine foundations, staging areas, work pads, gravel roadways, electrical substations, a permanent meteorological tower, radar system, and an operations and management building. Turbine foundations will be approximately 24 feet in diameter and made of concrete and steel. The staging areas will be approximately one acre. One laydown yard will be located in an upland area between Route 9 and the Project substation covering approximately 2 acres. The second laydown yard will be approximately 2.9 acres located off of Route 9, west of the proposed Project entrance. The Project will require construction of a main access road and two spur roads that will be used for access to individual turbines. A joint collector system and interconnection substation will be constructed as part of the Project. A single 34.5 kV three-phase collector line will be constructed from the collector substation to the individual turbines. It will follow the access road, with turbines connecting underground. The collector and interconnection substation will be located immediately to the north of the PSNH L163 line. The substation yard will consist of: (i) a collection yard measuring 100 feet by 111 feet that will contain a transformer and control house (16x20); and (ii) an interconnection yard measuring 172 feet by 186 feet, that will contain a three-breaker ring bus and a 20-foot by 24-foot control house. The meteorological tower will be a 100-meter free-

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standing lattice tower that will be located on the ridge between turbines 2 and 3. A radar activated system such as the Harrier Radar System manufactured by DeTect, Inc. will be installed: (i) on and at the base of the meteorological tower; and (ii) on a steel monopole tower that will be approximately 90-feet tall. The operations and maintenance building will be comprised of approximately 3,000 square feet and will include offices and associated facilities for technicians, a garage for spare parts and supplies, and a computer server room.

WHEREAS, the Subcommittee has held public meetings and hearings regarding the Application, including Public Information Sessions, pursuant to RSA 162-H:10, I-a on January 6, 2016 and Public Hearings pursuant to RSA 162-H:10, I-c on February 26, 2016; and adjudicatory proceedings on September 13, 15, 20, 22, 23, 28, 29, October 3, 18, 19, 20 and November 1 and 7, 2016, to hear evidence regarding the Application;

WHEREAS, the Subcommittee has received and considered both oral and written comments from the public concerning the Application;

WHEREAS, the Subcommittee finds that, subject to the conditions herein, the Applicant has adequate financial, technical, and managerial capability to assure construction and operation of the Project in continuing compliance with the terms and conditions of this Certificate;

WHEREAS, the Subcommittee finds that, subject to the conditions herein, that the Project 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;

WHEREAS, the Subcommittee finds that, subject to the conditions herein, the Project will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety;

WHEREAS, the Subcommittee finds that, subject to the conditions herein, the Project will be in the public interest; and,

WHEREAS, the Subcommittee has issued a Decision Granting a Certificate of Site and Facility with Conditions (Decision) contemporaneously with this Order and Certificate.

NOW THEREFORE, it is hereby ORDERED that the Application of Antrim Wind Energy, LLC, as amended, is approved subject to the conditions set forth herein and this Order shall be deemed to be a Certificate of Site and Facility pursuant to R.S.A. 162-H:4; and it is,

Further Ordered that, the Site Evaluation Subcommittee's Decision and any conditions contained therein, are hereby made a part of this Order; and it is,

Further Ordered that, the Applicant may site, construct and operate the Project as outlined in the Application, as amended, and subject to the terms and conditions of the Decision and this Order and Certificate; and it is,

Further Ordered that, this Certificate is not transferable to any other person or entity without the prior written approval of the Committee; and it is,

Further Ordered that, the Applicant shall immediately notify the Site Evaluation Committee of any change in ownership or ownership structure of the Applicant or its affiliated entities and shall seek approval of the Subcommittee of such change; and it is,

Further Ordered that, all permits and/or certificates recommended by the New Hampshire Department of Environmental Services, including the Wetlands Permit, the Alteration of Terrain Permit, and the Individual Sewage Disposal System Permit, shall issue and this Certificate is conditioned upon compliance with all conditions of said permits and/or certificates which are appended hereto as Appendix I; and it is,

Further Ordered that, the New Hampshire Department of Environmental Services is authorized to monitor the construction and operation of the Project to ensure that terms and conditions of the Wetlands Permit, the Alteration of Terrain Permit, the Individual Sewage Disposal System Permit, and the Certificate are met, however, any actions to enforce the provisions of the Certificate must be brought before the Site Evaluation Committee; and it is,

Further Ordered that, the New Hampshire Department of Environmental Services is authorized to specify the use of any appropriate technique, methodology, practice or procedure approved by the Subcommittee within the Certificate, as may be necessary, to effectuate conditions of the Certificate, the Wetlands Permit, the Alteration of Terrain Permit, and the Individual Sewage Disposal System Permit; and it is,

Further Ordered that, this Certificate is conditioned upon compliance with conditions of the Memorandum of Understanding executed by the New Hampshire Department Cultural Resources, Division of Historic Resources and the Applicant, which is appended hereto as Appendix II (App. 26); and it is,

Further Ordered that, at its own expense, the Applicant shall maintain a kiosk, website, or other instrument that will result from the implementation of the Memorandum of Understanding executed by New Hampshire Department Cultural Resources, Division of Historic Resources and the Applicant; and it is,

Further Ordered that the Applicant shall consult with the White Birch Historic Association regarding implementation of the Memorandum of Understanding executed by the New Hampshire Department of Historic Resources and the Applicant; and it is,

Further Ordered that, in the event that new information or evidence of archeological resources, historic sites or other cultural resources is found in the Project area, the Applicant shall immediately report said findings to the New Hampshire Department Cultural Resources, Division of Historic Resources and the Committee; and it is,

Further Ordered that, the Applicant shall consult with the New Hampshire Department Cultural Resources, Division of Historic Resources to determine the need for appropriate evaluative

studies, determinations of National Register eligibility, and/or mitigation measures, if needed, to resolve adverse effects; and it is,

Further Ordered that, the Applicant shall notify the New Hampshire Department Cultural Resources, Division of Historic Resources of any material change in the construction plans of the Project and of any new community concerns for any archeological resources, historic sites or other cultural resources affected by the Project; and it is,

Further Ordered that, if material changes in the construction plans of the Project lead to newly-discovered effects on historic properties, the Applicant shall consult with the New Hampshire Department Cultural Resources, Division of Historic Resources to resolve any adverse effects to such properties; and it is,

Further Ordered that, the New Hampshire Department Cultural Resources, Division of Historic Resources is authorized to specify the use of any appropriate technique, methodology, practice or procedure associated with archaeological, historical and other cultural resources affected by the Project, however, any action to enforce the conditions must be brought before the Committee; and it is,

Further Ordered that, all permits and/or certificates recommended by the New Hampshire Department of Transportation, including the Driveway Permits for the main entrance to the Project and for temporary laydown areas, shall issue and this Certificate is conditioned upon compliance with all conditions of said permits and/or certificates which are appended hereto as Appendix III; and it is,

Further Ordered that, the New Hampshire Department of Transportation is authorized to monitor the construction and operation of the Project to ensure that terms and conditions of the Driveway Permits for the main entrance to the Project and for temporary laydown areas, and the Certificate are met, however, any actions to enforce the provisions of the Certificate must be brought before Site Evaluation Committee; and it is,

Further Ordered that, the New Hampshire Department of Transportation is authorized to specify the use of any appropriate technique, methodology, practice or procedure approved by the Subcommittee within the Certificate, as may be necessary, to effectuate conditions of the Certificate and Driveway Permits for the main entrance to the Project and for temporary laydown areas; and it is,

Further Ordered that, this Certificate is conditioned upon compliance with all conditions of the Determinations of No Hazard to Air Navigation issued by the Federal Aviation Administration which are appended hereto as Appendix IV; and it is,

Further Ordered that, prior to erection of the turbines, the Applicant shall submit the plans for the fire suppression system in the nacelles of the turbines to the State Fire Marshal and the Town of Antrim Fire Department for review and approval; and it is,

Further Ordered that, the Applicant shall submit one hard copy and an electronic version of the final approved plans for the fire suppression system in the nacelles of the turbines to the Administrator of the Committee; and it is,

Further Ordered that, the Applicant shall notify the Administrator of the Committee, in writing, of any modifications or replacement of the Operation and Maintenance Agreement within sixty (60) days of such modification or replacement; and it is,

Further Ordered that, within thirty (30) days of issuance of the Certificate, the Applicant shall provide an updated plan for the timing and sequence of construction of the Project to the Administrator of the Committee; and it is,

Further Ordered that, the Applicant shall provide the Town of Antrim and the Administrator of the Committee with copies of its proposed construction plans, schedule, blasting and other public information (Ref. RSA 91-A:5) to be made available to the public; and it is,

Further Ordered that, the construction plans, schedule and other information provided to the Town of Antrim and Administrator of the Committee shall be updated to reflect changes in the Project schedule or other changes during construction; and it is,

Further Ordered that, the Applicant shall immediately notify the Committee of any change in ownership or ownership structure of the Applicant or its affiliated entities and shall seek approval of the Committee for such a change; and it is,

Further Ordered that, prior to the construction of the Project, the Applicant shall provide documentation demonstrating that debt and/or equity financing required for the construction of the Project is in place to the Committee's Administrator; and it is,

Further Ordered that, the Certificate is conditioned upon final closing and recording of the conservation easements for 908 acres of conservation land addressed in the Application; and it is,

Further Ordered that, the Certificate is conditioned upon the Applicant's compliance with the terms and conditions contained within the conservation easements for 908 acres of conservation land addressed in the Application; and it is,

Further Ordered that, the Certificate is conditioned upon the Applicant's compliance with the terms and conditions contained in the Agreement entitled "Agreement Between Town of Antrim New Hampshire and Antrim Wind Energy LLC, Developer/Owner of the Antrim Wind Power Project" dated March 8, 2012 (effective date) (Agreement between the Applicant and the Town of Antrim dated March 8, 2012) which is appended hereto as Appendix V; and it is,

Further Ordered that, the Town and Antrim Wind may amend the Agreement between the Applicant and the Town of Antrim dated March 8, 2012, consistent with the terms and conditions of the Certificate; and it is,

Further Ordered that, in the event of a conflict between the requirements of the Agreement between the Applicant and the Town of Antrim dated March 8, 2012, as amended, and the requirements of the Certificate, the Certificate shall control; and it is,

Further Ordered that, prior to commencement of construction activities in the Town of Antrim, the Antrim Board of Selectmen shall retain an independent engineer to review the specifications and assumptions in the Decommissioning Plan approved by the Committee and used to determine the amount of the Decommissioning Cost Estimate; and it is,

Further Ordered that the specifications and assumptions in the Decommissioning Plan used to determine the Decommissioning Cost Estimate shall be reasonably acceptable to the Antrim Board of Selectmen, subject to review under the provisions of RSA 162-H; and it is,

Further Ordered that, any changes to the form or amount of the Decommissioning Funding Assurance shall be reasonably acceptable to the Antrim Board of Selectmen, subject to review under the provisions of RSA 162-H; and it is,

Further Ordered that, the Antrim Board of Selectmen's review of the specifications and assumption in the Decommissioning Plan approved by the Committee and used to determine the amount of the Decommissioning Cost Estimate shall be completed within sixty (60) days of submission to the Board of Selectmen or as otherwise agreed to in writing; and it is,

Further Ordered that, failure to come to a decision within sixty (60) days or as otherwise agreed to in writing shall be deemed approval by the Antrim Board of Selectmen; and it is,

Further Ordered that, the Decommissioning Plan, Decommissioning Cost Estimate and the Decommissioning Funding Assurance shall comply with the terms and conditions of the Certificate; and it is,

Further Ordered that, prior to the commencement of construction of the Project, the Applicant shall provide Decommissioning Funding Assurance in an amount equal to two million seven hundred seventy five thousand dollars ($2,775,000) unless otherwise determined by the Committee; and it is,

Further Ordered that, the Applicant shall not cause the Decommissioning Funding Assurance amount to become less than two million seven hundred seventy five thousand dollars ($2,775,000) at any time throughout the term of the Agreement with the Town of Antrim dated March 8, 2012; and it is,

Further Ordered that, the Applicant shall increase the amount of the Decommissioning Funding Assurance, as appropriate, to reflect the updated decommissioning estimate, in accordance with Section 14.1.1 of the Agreement with the Town of Antrim dated March 8, 2012; and it is,

Further Ordered that, the Decommissioning Funding Assurance shall be in the form of an Irrevocable Letter of Credit ("ILOC") issued by a major financial institution with a credit rating

of "BBB" from Standard and Poor's, or a "Baa2" rating from Moody's, each as defined on the Effective Date (*See* Appendix V); and it is,

Further Ordered that, the ILOC shall be in a form acceptable to the Antrim Select Board as provided by Section 14.2 of the Agreement with the Town of Antrim dated March 8, 2012; and it is,

Further Ordered that, the ILOC shall be extended without amendment for successive periods of one (1) year; and it is,

Further Ordered that, forty-five (45) days prior to the extension of the ILOC, the Applicant shall provide documentation to the Town of Antrim and the Administrator of the Committee demonstrating that the extension of the ILOC complies with the decommissioning requirements of the Agreement with the Town of Antrim dated March 8, 2012, and the requirements of the Committee for the following annual period; and it is,

Further Ordered that, the Applicant shall provide documentation demonstrating that the extension of the ILOC complies with the decommissioning requirements of the Agreement with the Town of Antrim dated March 8, 2012, and the requirements of the Committee to the Town of Antrim and the Administrator annually, until the Applicant has completed its decommissioning obligations in accordance with Agreement between the Applicant and the Town of Antrim dated March 8, 2012, as amended by the Committee, the Decommissioning Plan as approved by the Subcommittee and any other requirements specified by the Certificate; and it is,

Further Ordered that, the ILOC shall remain in place until decommissioning is fully implemented and certified as complete; and it is,

Further Ordered that, the Applicant shall participate in meetings to be scheduled jointly by the Antrim Board of Selectmen and the Applicant to review and provide information to the public concerning construction activities, construction schedule, use of public highways, blasting and other construction activities; and it is,

Further Ordered that, the meetings between the Applicant and the Antrim Board of Selectmen shall be attended by persons knowledgeable with the Applicant's construction plans and responsible for managing construction activities; and it is,

Further Ordered that, the meetings between the Applicant and the Antrim Board of Selectmen shall be public meetings under RSA 91-A, moderated by the Antrim Board of Selectmen, except as provided by RSA 91-A:3; and it is,

Further Ordered that, the Applicant shall provide information concerning complaints during construction, if any, and their resolution, except that confidential, personal or financial information (Ref. RSA 91-A:5) regarding the complaint may be redacted; and it is,

Further Ordered that, in the event of significant unanticipated changes or events during construction that may impact the public, the environment, compliance with the terms and

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conditions of the Certificate, public transportation or public safety, the Applicant shall notify the Town of Antrim Board of Selectmen or its designee and Administrator of the Committee in writing as soon as possible but no later than seven (7) days after the occurrence; and it is,

Further Ordered that, in the event of emergency conditions which may impact public safety, the Applicant shall notify the Town of Antrim, appropriate officials and the Administrator of the Committee immediately; and it is,

Further Ordered that, during construction, the Applicant shall copy the Town of Antrim on any notices provided to the Committee, the New Hampshire Department of Environmental Services, or other applicable regulatory agency pursuant to the Certificate or any other permit for the Project; and it is,

Further Ordered that, prior to any blasting, the Applicant shall identify drinking water wells located within 2,000 feet of the proposed blasting activities and develop a groundwater quality sampling program to monitor for nitrates and nitrites, either in the drinking water supply wells or in other wells that are representative of the drinking water supply wells in the area; and it is,

Further Ordered that, the groundwater quality sampling program shall include pre-blasting and post-blasting water quality monitoring to be approved by the Department of Environmental Services prior to commencing blasting; and it is,

Further Ordered that, the groundwater sampling program shall be implemented by the Applicant once approved by the Department of Environmental Services; and it is,

Further Ordered that, the Department of Environmental Services is authorized to monitor the implementation and enforcement of the groundwater quality sampling program to ensure that terms and conditions of the program and the Certificate are met, and any actions to enforce the provisions of the Certificate must be brought before the Committee; and it is,

Further Ordered that, the Department of Environmental Services is authorized to specify the use of any appropriate technique, methodology, practice or procedure, as may be necessary, to effectuate conditions addressing the groundwater sampling program or to carry out the requirements of the groundwater quality sampling program; and it is,

Further Ordered that, the Certificate is conditioned upon the Applicant's compliance with the terms and conditions contained in the Bird and Bat Conservation Strategy (App. 33, Appx. 12F) which is appended hereto as Appendix VI; and it is,

Further Ordered that, the Certificate is conditioned upon the Applicant's compliance with the terms and conditions contained in the Invasive Species Management Plan which is appended hereto as Appendix VII; and it is,

Further Ordered that, the Certificate is conditioned upon the Applicant's compliance with the terms and conditions contained in the Memorandum of Understanding between the Applicant,

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New Hampshire Fish and Game and the New Hampshire Audubon Society which is appended hereto as Appendix VIII; and it is,

Further Ordered that, any and all reports that will be provided to New Hampshire Fish and Game, the United States Fish and Wildlife Service and/or the New Hampshire Department of Environmental Services pursuant to the terms and conditions of the Bird and Bat Conservation Strategy, the Invasive Species Management Plan and the Memorandum of Understanding between the Applicant, New Hampshire Fish and Game, and the New Hampshire Audubon Society shall be provided to the Administrator of the Committee; and it is,

Further Ordered that, the New Hampshire Fish and Game is authorized to monitor the Applicant's actions as they relate to protection of wood turtles during construction of the Project in the laydown and staging areas identified in the July 1, 2016, letter from New Hampshire Fish and Game to the Applicant, which is appended hereto as Appendix IX, and any actions to enforce this provision of the Certificate must be brought before Site Evaluation Committee; and it is,

Further Ordered that, New Hampshire Fish and Game is authorized to specify the use of any appropriate technique, methodology, practice or procedure approved by the Subcommittee within the Certificate, as may be necessary, to effectuate conditions of the Certificate addressing the protection of wood turtles; and it is,

Further Ordered that, the Applicant shall consult with, and receive approval from, New Hampshire Fish and Game regarding methods for providing protection of wood turtles during Project construction activities in the laydown and staging areas identified in the July 1, 2016 letter; and it is,

Further Ordered that, the Applicant shall submit to the Administrator of the Committee the final plan addressing protection of wood turtles during Project construction activities, as approved by New Hampshire Fish and Game; and it is,

Further Ordered that, the Applicant shall, to the extent practicable, use all reasonable efforts to avoid, rather than demolish, any boulders identified during adjudicative hearings in this docket that are located on Tuttle Hill within the limits of the disturbance area in the construction zone; and it is,

Further Ordered that, all reasonable efforts to avoid the boulders shall be within the scope of state and federal permits pertaining to the Project; and it is,

Further Ordered that the Applicant shall retain a third-party noise expert, as approved by the Administrator of the Committee, to assist the Town of Antrim and the Administrator in taking field measurements in order to evaluate and validate noise complaints; and it is,

Further Ordered that, the Applicant shall file, with the Administrator of the Committee, the Federal Aviation Administration's determination of no hazard pertaining to the Aircraft Detection Lighting System that will be installed on the Project upon its receipt; and it is,

Further Ordered that, on a semi-annual basis, the Applicant shall submit to the Administrator of the Committee and to the Town of Antrim, an electronic copy and one hard copy of the report generated from the SCADA System that shows the amount of shadow flicker for each residence, learning space, workplace, health care setting, outdoor or indoor public gathering area, other occupied building, and roadway, identified by property address and/or tax identification number, within a minimum of one mile of any turbine; and it is,

Further Ordered that, the Applicant or its successors shall provide the Town of Antrim and the Administrator of the Committee with paper and electronic copies of its Post-Construction Sound Monitoring Reports required by the Site Evaluation Committee (Ref. Site 301.18 e & f) which shall include a map or diagram showing: (1) the layout of the project area, including topography, project boundary lines, and property lines; (2) the locations of the sound measurement points; and (3) the distance between any sound measurement point and the nearest wind turbine; and it is,

Further Ordered that, the Applicant shall request the Town of Antrim to maintain a paper and electronic copy of the Applicant's Post-Construction Sound Monitoring Reports available at the Town Hall for all potential owners and/or developers (Potential Owners and/or Developers) applying for either a: (i) building permit to construct a new residential structure or (ii) planning board approval for the subdivision of land for residential use, within one mile of any wind turbine associated with the Project (New Development); and it is,

Further Ordered that, the Town of Antrim shall make available the Applicant's Post-Construction Sound Monitoring Reports to all Potential Owners and/or Developers on its web site, in person, or by regular mail, provided that such in-person or mailed reports shall require a nominal fee for postage or photocopying; and it is,

Further Ordered that, in addition to a copy of the Post-Construction Sound Monitoring Report, the Town of Antrim shall inform any Potential Owner and/or Developer of any New Development that it has the right to obtain from the Applicant or its successors, upon request via email to _______,[1] additional information regarding expected maximum sound power levels and shadow flicker associated with the Project within the above referenced one mile radius; and it is,

Further Ordered that, a request for additional information regarding expected maximum sound power levels and shadow flicker associated with the Project within the above referenced one mile radius shall include the proposed location of the New Development, and the name and address of the property owner and the Potential Owner and/or Developer (if different than the property owner) pertaining to the New Development (collectively, as applicable, the Property Owner); and it is,

Further Ordered that, within fourteen (14) days after receiving a request for additional information regarding expected maximum sound power levels and shadow flicker associated with the Project within the above referenced one mile radius from a Potential Owner and/or Developer, the Applicant shall provide to the Potential Owner and/or Developer and the Town of

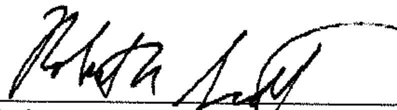
[1] To be provided by the Applicant.

Antrim the following information: (i) the expected maximum sound power level at the location of the New Development; and (ii) the expected amount of shadow flicker at the location of the New Development; and it is,

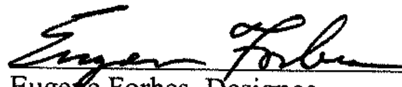
Further Ordered that, following the receipt of the above-referenced forecasts for expected maximum sound power level and expected amount of shadow flicker by the Potential Owner and/or Developer, the Applicant shall cooperate with and take such mitigation measures, if requested by the Potential Owner and/or Developer, to comply with applicable rules; and it is,

Further Ordered that, all Conditions contained in this Certificate and in the Decision shall remain in full force and effect unless otherwise ordered by the Committee.

SO ORDERED this seventeenth day of March, 2017.



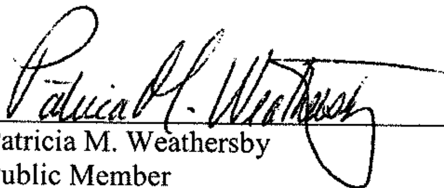
Robert R Scott, Presiding Officer
Site Evaluation Committee
Commissioner
Public Utilities Commission



Eugene Forbes, Designee
Director, Dept. of Environmental Services
Water Division

John Clifford, Designee
Hearings Examiner
Public Utilities Commission

Jeffrey J. Rose, Commissioner
Dept. of Resources & Economic Dev.



Patricia M. Weathersby
Public Member

STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE

Docket No. 2015-02

Re: Application of Antrim Wind Energy, LLC
for a Certificate of Site and Facility

June 21, 2017

ORDER DENYING MOTIONS FOR REHEARING

I. BACKGROUND

On October 2, 2015, Antrim Wind Energy, LLC (Antrim Wind or Applicant), applied for a Certificate of Site and Facility (Application) with the Site Evaluation Committee (Committee). Antrim Wind proposes to site, construct, and operate nine (9) wind turbines and associated civil and electrical infrastructure in Antrim (Project.) *See* Application, at 19, 27. The Project is proposed to be on the Tuttle Hill ridgeline spanning southwestward to the northeastern slope of Willard Mountain (Site). *Id.* at 5.

A subcommittee consisting of seven members, including two public members, (Subcommittee) was assigned to this docket. *See* RSA 162-H:4-a, II. The adjudicative hearings in this docket lasted thirteen days.[1] During the adjudicative hearings, the Applicant presented testimony of expert witnesses who were cross-examined by members of the Subcommittee, Counsel for the Public and the Intervenors. Counsel for the Public presented expert testimony. The Intervenors and their witnesses also presented testimony and were cross-examined. In total, the Subcommittee received 220 exhibits. The Subcommittee also received numerous public comments, oral and written, from interested members of the public.

The Subcommittee deliberated over three days on December 7, 9 and 12, 2016.

[1] Hearings were held on September 13, 15, 20, 22, 23, 28, 29, October 3, 18, 19, 20 and November 1 and 7, 2016.

A Decision and Order granting a Certificate was issued on March 17, 2017.

On March 27, 2017, the Meteorologists Intervenor Group (Meteorologists) moved for Rehearing. The Applicant objected to Meteorologist Motion for Rehearing on April 5, 2017.

On April 14, 2017, the Abutting Residents Group of Intervenors, the Non-Abutting Residents Group of Intervenors, the Levesque/Allen Group of Intervenors, the Stoddard Conservation Commission and the Windaction Group (Intervenors) filed a Joint Motion for Rehearing. The Applicant objected to the Joint Motion on April 24, 2017. The Intervenors replied to the Applicant's Objection on May 2, 2017.

On April 17, 2017, Counsel for the Public moved for Rehearing or Reconsideration. The Applicant objected to Counsel for the Public's Motion on April 25, 2017.

On May 5, 2017, at a public meeting the Subcommittee deliberated on the three motions for rehearing and voted to deny each motion. This order memorializes the deliberations and decision of the Subcommittee.

II. STANDARD OF REVIEW

Under RSA 541:2, any order or decision of the Committee may be the subject of a Motion for Rehearing or of an appeal in the manner prescribed by the statute. *See* RSA 541:2. A request for rehearing may be made by "any party to the action or proceeding before the commission, or any person directly affected thereby." RSA. 541:3. The Motion for Rehearing must specify "all grounds for rehearing, and the commission may grant such rehearing if, in its opinion, good reason for the rehearing is stated in the motion." *Id.* Any such motion for rehearing "shall set forth fully every ground upon which it is claimed that the decision or order complained of is unlawful or unreasonable." RSA 541:4.

"The purpose of a rehearing is to direct attention to matters said to have been overlooked or mistakenly conceived in the original decision, and thus invite reconsideration upon the record

to which that decision rested." *Dumais v. State of New Hampshire Pers. Comm.*, 118 N.H. 309, 311 (1978) (internal quotations omitted). A rehearing may be granted if the Committee finds "good reason." *See* RSA 541:3. A motion for rehearing must be denied where no "good reason" or "good cause" has been demonstrated. *See O'Loughlin v. NH Pers. Comm.*, 117 N.H. 999, 1004 (1977); *see also In re Gas Service, Inc.*, 121 N.H. 797, 801 (1981).

A motion for rehearing shall:

> (1) Identify each error of fact, error of reasoning, or error of law which the moving party wishes to have reconsidered;
>
> (2) Describe how each error causes the committee's order or decision to be unlawful, unjust or unreasonable;
>
> (3) State concisely the factual findings, reasoning or legal conclusion proposed by the moving party; and
>
> (4) Include any argument or memorandum of law the moving party wishes to file.

N.H. CODE ADMIN. RULES Site 202.29. A motion for rehearing is generally required in order to appeal a decision of the Subcommittee to the Supreme Court. *See* RSA 541: 4.

III. GENERAL DENIAL

The Intervenors, Counsel for the Public and the Meteorologists have filed motions for rehearing alleging dozens of perceived errors. With one exception[2] all issues raised in the motions were initially raised, argued and decided during the adjudicative hearing process. At the public meeting on the motions for rehearing the Subcommittee determined that each issue raised had been properly decided. In each instance the Subcommittee found that the motions did not present good reason or good cause for rehearing or reconsideration. No new evidence was

[2] The Intervenors and Counsel for the Public raised one new claim in the motions for rehearing. They allege that a quorum of the Subcommittee was not properly constituted when only one public member assigned to the docket actually attended and deliberated on the matter. The Subcommittee rejected this argument finding that a duly constituted quorum of a subcommittee did not require the attendance of both public members. See Section ___, below.

presented and the arguments made by the parties were no more persuasive than they were during the course of the adjudicative proceeding.

In each case there was no good cause or reason for rehearing. The balance of this order explains in more detail the Subcommittee's reasons for denying the motions.

IV. ANALYSIS AND FINDINGS

A. *Res Judicata*[3]

The Intervenors claim that the Project is substantially similar to a prior project considered by the Subcommittee in the Docket No. 2012-01 (Antrim I). They argue that the Subcommittee should have declined to consider the Project under the doctrine of *res judicata*. They claim that the only differences between the two projects is the removal of one turbine, a reduction of the remaining turbine heights by approximately 38 inches and additional off-site mitigation measures. The Intervenors assert that the change to the physical characteristics of the Project is *de minimus*. The Intervenors assert that it is unreasonable to determine that the Project is substantially different from the Antrim I project simply because of the proposed additional mitigation measures. They assert that the Subcommittee in the Antrim I docket specifically determined that mitigation measures proposed by the Applicant did not change the Project's actual impact on aesthetics. The Intervenors conclude that there are no material differences between the projects. Therefore they argue that the Application should be denied under the doctrine of *res judicata.*

Counsel for the Public argues that the Subcommittee failed to identify material changes to the Project and findings of how these changes materially altered the impact of the Project on

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[3] Counsel for the Public joined the arguments addressing the following issues raised by the Intervenors in their Joint Motion: (i) res judicata; (ii) quorum; (iii) waiver of requirements; (iv) procedural fairness; (v) effect on aesthetics; (vi) decommissioning. Counsel for the Public's Motion addressed and supplemented arguments raised by the Intervenors. Therefore, issues addressed by Counsel for the Public and the Intervenors are addressed under the same section of this Order.

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aesthetics. Counsel for the Public concludes that, without identifying these changes and their effect on aesthetics, the Subcommittee could not reasonably find that doctrine of *res judicata* did not apply to the Project.

Counsel for the Public also claims that the Subcommittee erroneously concluded that the Antrim I subcommittee invited the submission of an amended application. In Antrim I the applicant filed a motion to reopen the record to offer a number of changes to that project. The Antrim I subcommittee found that the proposed changes would render the project to be materially different. Counsel for the Public argues that the Antrim I statements were made to express the Antrim I subcommittee's concerns about re-opening the record and the effect additional changes proposed after the closing of the record may have on the Applicant's financial ability and other aspects of the application. In addition, Counsel for the Public argues that the Subcommittee's finding that the Antrim I subcommittee invited the refiling of an amended Application was erroneous because it was contrary to a determination made by the subcommittee that asserted jurisdiction over the Project. Counsel for the Public concludes that the Subcommittee's decision that the doctrine of *res judicata* does not bar the Application in this docket is unlawful because it is based on an erroneous finding that the subcommittee in the Antrim I docket invited the resubmittal of an amended Application.

The Intervenors and Counsel for the Public also argue that changes in the Committee's rules did not render the Project materially different from the Antrim I project because the Subcommittee in the Antrim I docket considered many issues recently codified in Site 301.14(a), *i.e.* the character of the area; the significance of an affected resource; the extent, nature and duration of public use; the scope and scale in the change in landscape; the extent to which the Project would be a dominant and prominent feature within a natural or cultural landscape of high scenic quality; and the effectiveness of mitigation measures.

Counsel for the Public also asserts that the Subcommittee's decision is unlawful because the Subcommittee failed to make specific findings stating how the changes in the law or rules affected the outcome such that they would be an intervening force negating the doctrine of *res judicata* and collateral estoppel.

The Applicant argues that the Intervenors failed to identify issues of fact or law that the Subcommittee overlooked or misapprehended. The Applicant claims that the Intervenors incorrectly characterized the Subcommittee's finding of differences between the projects. The Applicant points out that the Subcommittee's findings were not based solely on changes to mitigation measures. The Applicant argues that the Subcommittee considered all the changes to the Project in determining that the Application is not barred by the doctrine of *res judicata*. In evaluating the applicability of the doctrine of *res judicata*, the Applicant argues that the Subcommittee specifically addressed differences between Antrim I and the current Project, including, but not limited to, the proposed additional mitigation and found that the "Application contains substantive and material changes from the initial Application." Deliberation, Day 1, Morning Session, at 16.

The Applicant disagrees with Counsel for the Public's argument that the Subcommittee could only determine that the Project is substantially different from the Antrim I project after a comparison and determination of differences between the impacts on aesthetics of each scenic resource in each project. The Applicant asserts that the Subcommittee correctly considered all differences between the projects as opposed to solely considering the different impacts on aesthetics in applying the doctrine of *res judicata.*

The Applicant also argues that there has been a change in the law, *i.e.* the enactment of the Committee's rules that preclude application of the doctrine of *res judicata*. The Applicant concludes that the Intervenors' and Counsel for the Public's requests for rehearing are based on

misapplication of the doctrine of *res judicata*. Applicants argue that the same arguments already made by Counsel for the Public in her Post-Hearing Memorandum were considered and denied by the Subcommittee.

The Intervenors and Counsel for the Public had a fair opportunity to argue that the denial of a certificate of site and facility in the Antrim I docket precluded consideration of the Application in this docket. However, that argument failed to persuade the Subcommittee. In the motions for rehearing neither Counsel for the Public nor the Intervenors offer any new evidence or arguments to support their claim for rehearing. They merely argue that the Subcommittee made a mistake.

The Subcommittee conducted a thorough and painstaking review of the similarities and the differences between Antrim I and the present Application. Specifically the Subcommittee cited the elimination of one turbine near Willard Pond, a substantial reduction in height of a second turbine near Willard Pond, a reduction in overall height and size of the remaining turbines, a change in turbine manufacturer, the addition of 100 acres of conservation land and additional mitigation measures. The substantial differences between the applications preclude a finding that the two applications represent the same cause of action. Based on the substantial factual differences between the two Applications the doctrine of *res judicata* does not apply. *See Morgenstern v. Town of Rye,* 147 N.H. 558, 565 (2002).

The Subcommittee also notes that the Antrim I subcommittee, when presented with a motion to re-open the record, declined to consider changes proposed by the applicant. In Antrim I the subcommittee wrote: "the Applicant seeks to introduce evidence which would materially change the original Application and would require extensive de novo review as opposed to 'a full consideration of the issues presented at the hearing.'" N.H. CODE OF ADMIN. RULES Site 202.27 (b) (emphasis added)." Application of Antrim Wind Energy, LLC, No, 2012-01, Order on

Pending Motions, September 10, 2013, p. 11. The Application in this docket includes those changes which the Antrim I subcommittee found to be material changes. Those material changes preclude the application of the doctrine of *res judicata*.

The Subcommittee also recognizes that the Order on Pending Motions in Antrim I can be read so as to invite the filing of a new application. *See Hill-Grant Living Trust v. Kearsarge Lighting,* 159 N.H. 529 (2009). The differences between the project in the Antrim I application and the Project in this docket are not inconsequential. The changes were in response to concerns raised by the Antrim I subcommittee and were designed to meaningfully resolve those concerns. Under these circumstances the doctrine of *res judicata* does not bar the granting of a Certificate in this docket. *See Hill-Grant Living Trust* at p. 536.

A substantial change in the law also occurred between the denial of the certificate in the Antrim I docket and this Application. In 2013 and 2014, RSA 162-H:10, VII, was amended and required the Committee to promulgate substantive administrative rules including "specific criteria to be applied in determining if the requirements of RSA 162-H:16, IV have been met by the applicant for a certificate of site and facility." See, 2013 N.H. Laws, c. 134:2, 2014 N.H. Laws, c. 217:16. In response, the Committee promulgated administrative rules defining the criteria that a subcommittee must apply when considering the statutory factors set forth in RSA 162-H:16. *See* N.H. CODE ADMIN. RULES Site 301.13 - 301.16. The administrative rules also set substantive limits for operational noise emitted from a wind energy facility, N.H. CODE ADMIN. RULES Site 301.14(f)(2) and for shadow flicker, N.H. CODE ADMIN. RULES, Site 301.14(f)(3). With regard to aesthetics the administrative rules now require a subcommittee to consider seven (7) distinct categories of impacts. *See* N.H. CODE ADMIN. RULES Site 301.14 (a)(1-7).

The changes in the substantive administrative rules altered the situation for the Applicant and provided "fixed targets" in the form of substantive limitations on impacts to be met in any new application. The Subcommittee considers those changes in the law to be material changes that alter the situation and preclude application of the doctrine of *res judicata.*

B. Collateral Estoppel

The Intervenors and Counsel for the Public argue that, while determining which scenic resources will be affected by the Project, the Subcommittee should have applied the doctrine of collateral estoppel and adopted the findings regarding the visual impact of the Project on scenic resources identified in the Antrim I docket, *i.e.* Highland Lake, Lake Nubanusit and the dePierrefeu Wildlife Sanctuary (in its entirety as opposed to parts of it).

The Intervenors and Counsel for the Public assert that the doctrine of collateral estoppel required the Subcommittee to consider the effect of the Project on these resources because: (i) the same parties are involved in this docket and the Antrim I docket; (ii) the Project's effect on aesthetics was adjudicated to a final decision on the merits in the Antrim I docket; and (iii) the criteria to be employed to determine scenic resources in this docket is identical to the criteria used for identification of scenic resources in the Antrim I docket. The Intervenors and Counsel for the Public conclude that the Subcommittee's decision was unreasonable and unlawful because the Subcommittee failed to evaluate the Project's impact on scenic resources identified in the Antrim I docket.

The Intervenors and Counsel for the Public also argue that the Subcommittee should not have considered additional land conservation easements as a mitigation measure under the doctrine of collateral estoppel because the Subcommittee in the Antrim I docket determined that such placement would not mitigate the project's effect on aesthetics. Counsel for the Public further argues that the Subcommittee's determination in the Antrim I docket that conservation of

land does not adequately mitigate the Project's effect on aesthetics was not limited to the Antrim I project and applies to the current Project because: (i) the Decision issued in the Antrim I docket does not specifically state this findings applies only to Antrim I docket; and (ii) the term "in this case" used by the subcommittee in Antrim I docket referring to mitigation measures did not mean that the Subcommittee intended to make a case-specific finding.

The Applicant argues that the Intervenors reiterate arguments raised during the adjudicatory hearings and assert no facts or arguments that warrant rehearing.

Specifically, the Applicant asserts that the Subcommittee did not have to consider the Project's impact of the same scenic resources as identified in the Antrim I docket because the Project and its effect on aesthetics, including affected scenic resources, has changed.

The Applicant also argues that adoption of the Committee's rules containing a new definition of scenic resources and new criteria for evaluating the effect on aesthetics precluded application of the doctrine of collateral estoppel in this docket.

As to the proposed mitigation measures, the Applicant argues that the Subcommittee was not required to find that placement of conservation land in easements represents no effective mitigation measure under the doctrine of collateral estoppel. In support, the Applicant asserts that the Subcommittee in the Antrim I docket was specifically limited to the project considered in the Antrim I docket and the Project in this docket, including proposed mitigation measures, is substantially different from the Antrim I docket.

Collateral estoppel is a doctrine the New Hampshire Supreme Court has described as "an extension of res judicata which prevents the same parties, or their privies, from contesting in a subsequent proceeding on a different cause of action any question or fact actually litigated in a prior suit." *In re Hooker*, 142 N.H. at 43 (*citing Scheele v. Village Dist.*, 122 N.H. 1015, 1019

(1982)). Collateral estoppel "bars re-litigation of factual issues which have already been determined[.]" *State v. Pugliese,* 122 N.H. 1141, 1144 (1982).

In order for collateral estoppel to apply, the following elements must be satisfied: (1) the issue subject to estoppel must be identical in each action; (2) the first action must have resolved the issue finally on the merits; (3) the party to be estopped must have appeared in the first action or have been in privity with someone who did; (4) the party to be estopped must have had a full and fair opportunity to litigate the issue; and (5) the finding must have been essential to the first judgment. *See In re Hooker,* 142 N.H. 40, 43-44 (1997).

As noted above, the Application in this docket is independent of the Application filed in Antrim I and presents a substantially different Project than that proposed in Antrim I. The current Project includes the elimination of one turbine near Willard Pond, a substantial reduction in height of a second turbine near Willard Pond, a reduction in overall height and size of the remaining turbines, a change in turbine manufacturer, the addition of 100 acres of conservation land and additional mitigation measures. Given these differences between the projects it cannot reasonably be claimed that the issue in each action is identical. The differences in the size and configuration of the Project necessarily affect its visual impact as well as other impacts. Additionally the finding sought by the Applicant in this docket could not have been essential to the finding in the prior docket because the Project is materially different than the one proposed in 2012. The doctrine of collateral estoppel does not apply under these circumstances.

C. Quorum

The Intervenors and Counsel for the Public argue that the Subcommittee's decision was unreasonable and unlawful because it was made without two public members. In support, the Intervenors and Counsel for the Public assert that RSA 162-H:4, II requires two public members to serve on each subcommittee and, under RSA 162-H:3, XI, if one of the public members is not

available for good reason, the governor and counsel shall appoint a replacement upon petition of the chairperson. They further argue that, considering the special role of public members as representatives of the public, two public members are required for a quorum of the Subcommittee.

Counsel for the Public further asserts that the Intervenors did not waive their quorum argument as they were not advised that a public member will not participate in this docket and were not aware of the public member's non-participation until the record was closed and deliberations were conducted.

The Applicant asserts that RSA 162-H:4-a, II requires the Subcommittee to consist of seven members, including two public members. It further states that "[f]ive members of the Subcommittee shall constitute a quorum for the purposes of conducting the Subcommittee's business." RSA 162-H:4-a, II. The Applicant claims that nothing in the statutory language requires two of the five quorum members to be public members. The Applicant concludes that a quorum consists of any five members of the Subcommittee. The presence of public members is not a quorum requirement.

The Applicant also claims that the Intervenors waived their right to argue that the Subcommittee's decision is void because they had never raised this argument during adjudicatory hearings and failed to preserve it.

Neither Counsel for the Public nor the Intervenors complained at any point during the adjudicative process about the lack of a public member or the lack of a quorum. RSA 162-H: 4-a, II, requires a subcommittee considering a wind project to consist of seven members including two public members. The Subcommittee did consist of seven members including two public

members[4]. However, the statute contains the further proviso that five members of the subcommittee shall constitute a quorum for the purposes of conducting subcommittee business. *See* RSA 162-H:4-a, II. The statute does not require public members to be members of the quorum. The makeup of the Subcommittee and its quorum during the adjudicative process was consistent with the statute. The Subcommittee's actions were neither unlawful nor unreasonable. Moreover, due process does not require that all members of an administrative board take part in every decision. *See e.g. Auger v. Town of Strafford*, 156 N.H. 64, 68 (2007). The Subcommittee acted in full compliance with the statute. The motions for rehearing must be denied[5].

D. Waiver of Noise and Flicker Restrictions for Participating Landowners

The Intervenors and Counsel for the Public argue that the Subcommittee's decision was unreasonable because it waived the noise and shadow flicker restrictions in N.H. CODE OF ADMIN. RULES Site 301.14(f)(2) a and b as applied to participating landowners:(i) without making a determination that such waiver is in the public interest; and (ii) without allowing the Intervenors to address the request for waiver. See N.H. CODE OF ADMIN. RULES Site 202.15.

The Intervenors claim that the Subcommittee's decision was unreasonable because the Subcommittee failed to make a specific finding indicating that the waiver will serve the public interest.

The Intervenors also claim that, under N.H. CODE OF ADMIN. RULES Site 202.15(f), the Subcommittee may grant a waiver only upon providing the opportunity to comment on any waiver request before the Subcommittee. They conclude that the Subcommittee's decision was

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[4] Public members Roger Hawk and Patricia Weathersby were originally assigned to the Subcommittee. Mr. Hawk passed away. On January 11, 2017, the alternate public member, Rachel Whitaker, was appointed to the Subcommittee.

[5] The Intervenors suggest that Ms. Whitaker took "maternity leave." The Site Evaluation Committee does not formally recognize "maternity leave" or any type of "leave."

unreasonable because the Subcommittee failed to provide an opportunity for the Intervenors to address a waiver request.

Counsel for the Public further asserts that the Subcommittee's waiver was erroneous because it indirectly approved exculpatory agreements between the Applicant and participating property owners: (i) without finding that such agreements do not violate public policy; (ii) without determining that the releasing party understood the import of the agreement or a reasonable person in his or her position would have understood the import of the agreement; and (iii) without determining that the releasing party's claim would have been within the contemplations of the parties during execution and the releasing party would not be responsible for consequences of its negligence. *See Barnes v. N.H. Karting Assn.*, 128 N.H. 201 (1986).

The Intervenors and Counsel for the Public argue that the Subcommittee should reconsider its decision to waive the noise and shadow flicker restrictions in N.H. CODE OF ADMIN. RULES Site 301.14(f)(2) a and b, as applied to participating landowners, and should find that the Project exceeds these requirements as applied to the participating landowners.

The Applicant asserts that the Subcommittee received ample evidence that certain property owners voluntarily waived noise and shadow flicker restrictions set forth by the rules. The Applicant also asserts that the Intervenors addressed the legitimacy of such waivers during adjudicative hearings. The Subcommittee also considered waivers during its deliberations and concluded that the landowners should be permitted to voluntarily forego the restrictions. Deliberation Tr. Day 2, Afternoon Session, at 44. The Decision and Order accurately reflects the Subcommittee's findings. *See* Decision and Order Granting Application for Certificate of Site and Facility, at 168-69; Order and Certificate of Site and Facility with Conditions, at 11. The Applicant argues that, although the Subcommittee did not make a specific finding that a waiver

will be in the public interest, such finding is implicitly made by the Subcommittee by waiving requirements of the rules.

Counsel for the Public and Intervenors, in their motions for rehearing, make no new arguments regarding the waiver of noise and shadow flicker requirements as to participating landowners. There is no good reason to grant a rehearing.

It is important to note that the Subcommittee made an overall determination that the granting of a Certificate to the Applicant based upon the Project as presented in the Application, including the waivers, was in the public interest. Therefore, as a public interest determination regarding the waivers for participating landowners is included in the overall public interest determination made by the Subcommittee. There is no reason to grant a rehearing on this issue.

E. Procedural Unfairness

The Intervenors and Counsel for the Public claim that the Subcommittee should grant rehearing because the proceedings in this matter were unfair to the prejudice of Counsel for the Public and the Intervenors. According to them the alleged unfairness resulted in a chilling effect on the Intervenors' involvement and their ability to fully develop the factual record.

Specifically, the Intervenors argue that, under RSA 541-A:33, they were entitled to conduct cross-examination required for a full and true disclosure of the facts. They further argue that under N.H. CODE OF ADMIN. RULES Site 202.02, the Presiding Officer must conduct a hearing in a fair, impartial and efficient manner, admitting relevant evidence, excluding irrelevant, immaterial, or unduly repetitious evidence, and providing the parties with the opportunity to question any witness.

The Intervenors assert that, by requiring all parties to provide supplemental pre-filed testimony at the same time, the Presiding Officer provided the Applicant with the opportunity to address the Intervenors' critique and effectively deprived the Intervenors of the opportunity to

address arguments in the Applicant's pre-filed testimony. They assert this procedure was contrary to the spirit of RSA 541-A:33 because it prevented a full and true disclosure of the facts. They also claim it was contrary to N.H. CODE OF ADMIN. RULES Site 202.02 because it benefited the Applicant and did not allow for admission of relevant evidence.

The Intervenors also assert that, unlike the Applicant, they were not allowed to rehabilitate their witnesses and conduct friendly examinations. They claim that the record was under-developed and the decision, based on the record, was unlawful and unreasonable.

Counsel for the Public argues that the Presiding Officer's decision precluding her from asking additional rebuttal questions of her expert was arbitrary and unsustainable.[6]

The Intervenors and Counsel for the Public request the Subcommittee to re-open the record and to allow the Intervenors to rehabilitate their witnesses.

The Applicant asserts that the Intervenors identified no error of fact, reasoning or law and establishing the Subcommittee's decision to be unreasonable or based on an "under-developed" record.

The Applicant states that the Intervenors' claim that they could not conduct friendly cross-examination directly contradicts the record. They argue that the Presiding Officer, during structuring conferences, directly and unambiguously indicated that friendly examination would not be precluded as a rule and will be addressed case by case. The Presiding Officer allowed several Intervenors, including Ms. Linowes on behalf of Windaction, Mr. Block and the Audubon Society to conduct friendly cross-examination of various witnesses.

The Applicant also asserts that the Intervenors were not prejudiced by the requirement to file their supplemental pre-filed testimony at the same time as the Applicant because they had an

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[6] Counsel for the Public incorporates, by reference, any and all arguments made in her Motion to Reconsider Evidentiary Ruling and Request to Reopen the Record dated November 14, 2016.

opportunity to address any issues raised in the Applicant's testimony during cross-examination of the Applicant's witnesses.

Neither Counsel for the Public nor the Intervenors were treated unfairly during the adjudicative process. All parties including Counsel for the Public and the Intervenors had the opportunity to file testimony that was responsive to the pre-filed testimony of the Applicant's witnesses. In addition, Counsel for the Public the Intervenors and the Applicant were permitted to file supplemental testimony shortly before the commencement of the Adjudicative hearings. There is nothing inherently unfair about the process. Counsel for the Public and Intervenors were given full rein to cross-examine each of the Applicants witnesses. In fact, Counsel for the Public and the Intervenors did conduct comprehensive cross-examination of each witness. The filing of contemporaneous supplemental testimony by all parties did not inhibit the ability to cross-examine any witness. The request for rehearing must be denied.

In addition, Counsel for the Public and Intervenors are simply wrong when they allege that they were not permitted to conduct "friendly cross-examination." In fact, all parties were afforded an extensive opportunity to question witnesses regardless which party presented the witness. Although the Presiding Officer has the authority to limit "friendly cross-examination" that was not the case. Rehearing on this issue is denied.

F. Effect on Aesthetics - Consideration of Requirements of N.H. CODE OF ADMIN. RULES Site 301.14

The Intervenors and Counsel for the Public argue that, contrary to N.H. CODE OF ADMIN. RULES Site 301.14, the Subcommittee failed to analyze the scope and scale of the change in the landscape in determining the effect of the Project on aesthetics.

Counsel for the Public admits that the Subcommittee discussed the Project's dominance and prominence and such findings relate to the determination of scale of the Project in relation to

its surroundings. Counsel for the Public opines, however, that the Subcommittee's decision is unreasonable because the Subcommittee determined that the Project will be a dominant and/or prominent feature as viewed from identified scenic resources and determined that the Project's effect on aesthetics will be reasonable without addressing the Project's scale and scope and without stating why it was determined that they are reasonable.

Counsel for the Public also asserts that the Subcommittee failed to consider the character of the region as required by N.H. CODE OF ADMIN. RULES Site 301.14 (a)(1) and made a "cursory" finding that the affected area was in the Town of Antrim's rural conservation zone which includes a great deal of conservation land.

Counsel for the Public further argues that the Subcommittee failed to determine the significance of the affected resources and mistakenly concluded that Gregg Lake and Black Pond were private resources.

Counsel for the Public further argues that the Subcommittee underestimated the extent, nature and duration of public use of identified scenic resources and made no findings that would support the conclusion that considered uses would not result in an adverse impact.

The Applicant asserts that, while addressing the impact of the Project on aesthetics, the Subcommittee considered: (i) the existing character of the area – Deliberation Tr. Day 1, Afternoon Session, at 26-30, 32; (ii) the significance of scenic resources - Deliberation Tr. Day 1, Afternoon Session, at 63-64; (iii) public use of the resources - Deliberation Tr. Day 1, Afternoon Session, at 30-31, 38-39, 43; (iv) daytime and nighttime visual effects - Deliberation Tr. Day 1, Afternoon Session, at 53-54, 61-62; and (v) proposed mitigation measures - Deliberation Tr. Day 1, Afternoon Session, at 69-72, 132-141.

The Applicant also argues that the Subcommittee considered the scope and scale of the Project when it evaluated each and every photosimulation, assessed prominence and dominance

of the Project and ultimately determined whether the Project will have an unreasonable adverse effect on each evaluated scenic resource.

The Applicant disputes Counsel for the Public's statement that the Subcommittee determined that Gregg Lake and Block Pond were private scenic resources. The Applicant asserts that, during deliberations, the Subcommittee did not determine these resources were private. The Applicant asserts that the Subcommittee did not consider Counsel for the Public's simulations demonstrating the effect of the Project because it found that the photosimulations were prepared from private property and reflected the effect of the Project on the private property.

The Applicant also asserts that the Subcommittee specifically considered and addressed the nature and duration of the use of the resources and stated that consideration should be provided on whether the user will be considering returning to the resources. Deliberation Tr. Day 2, Afternoon Session, at 49.

The Subcommittee conducted an extensive review of the aesthetic impacts of the Project. As indicated in the Applicant's objection, the Subcommittee comprehensively considered each criteria related to aesthetics under N.H. CODE ADMIN. RULES Site 301.14. Neither Counsel for the Public nor the Intervenors offer any new or different arguments. The request for rehearing repeats the same arguments that failed to persuade the Subcommittee during the adjudicative proceeding. Neither Counsel for the Public nor the Intervenors offer good reason or cause to require a rehearing concerning aesthetics.

G. Effects on Aesthetics - Viewshed Analysis, Identification of Scenic Resources, Viewer Effects and Photosimulations

Intervenors and Counsel for the Public argue that the Subcommittee unreasonably relied on the visual impact assessment and testimony of the Applicant's expert, David Raphael:

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Intervenors allege a litany of complaints about Mr. Raphael's testimony and visual impact assessment. Intervenors and Counsel for the Public also argue that Mr. Raphael's visual impact assessment (VIA) did not comply with our administrative rules, failed to properly consider viewer effects, and was supported by improper photosimulations.

The Meteorologists also claim that the Subcommittee's decision that the Project will not have an unreasonable adverse effect on aesthetics was erroneous because it was subjective and was based on visual simulations without considering, in totality, the size, height, direction and speed of motion, flashing light, noise, rapidity of change, brightness and color of the Project.

The Applicant responds that the record does not support Intervenors' complaints. Citing to various portions of the transcripts of the adjudicative proceedings, the Applicant points out that each and every issue raised by the Intervenors, Counsel for the Public, and the Meteorologists was specifically considered and rejected by the subcommittee. The Applicant argues that the Subcommittee performed a comprehensive analysis of the testimony of Mr. Raphael and the testimony provided by Kellie Connelly, Counsel for the Public's aesthetics expert. The Applicant also argues that the Subcommittee conducted a photo by photo review of the photosimulations provided by all of the parties. Given the comprehensive review conducted by the Subcommittee, the Applicant asserts that the Motions for Rehearing simply seek to reiterate arguments that were not persuasive to the Subcommittee at the time of the hearings.

The Applicant also argues that the Meteorologists failed to identify a single fact that the Subcommittee overlooked or mistakenly conceived while addressing the effect of the Project on aesthetics. The Applicant further claims that the Decision was not erroneous because the Subcommittee comprehensively reviewed the VIA prepared by the Applicant's expert, a VIA prepared by Counsel for the Public's expert and the testimony of other witnesses in this docket including a video simulation demonstrating the effect of blade movement on the viewshed.

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During the course of its deliberations, the Subcommittee examined the testimony, the opinions, and the VIAs submitted by all parties including the expert testimony assessments and opinions. The Subcommittee considered the strengths and weaknesses of the testimony and each VIA. The Subcommittee also reviewed each and every photosimulation submitted. In addition, during the course of the adjudicative proceeding, the Subcommittee conducted two on-site visits to various scenic resources and other areas aesthetically impacted the project. The Subcommittee also benefited from a review of the video simulation demonstrating the movement of the turbine blades in the viewshed. Based on this comprehensive review the Subcommittee was persuaded by a preponderance of the evidence that the project would not have an unreasonable adverse impact on aesthetics in the region. The motion for rehearing seeks to reargue issues that were completely and comprehensively considered by the Subcommittee. There is no good cause for rehearing.

H. Effects on Aesthetics – "Testimony" of Jean Vissering

Counsel for the Public claims that the Subcommittee's decision that the Project will not have an unreasonable adverse effect on aesthetics was unreasonable because the Subcommittee failed to consider the opinion of Counsel for the Public's "other expert," Jean Vissering, who purportedly determined that changes to the Project did not sufficiently mitigate the unreasonable adverse effect of the Project on aesthetics.

The Applicant responds that the Subcommittee was not required to consider Ms. Vissering' s opinions because Ms. Vissering was not a witness in this proceeding, did not file testimony and was not subject to cross-examination. The Applicant further asserts that, nonetheless, the Subcommittee considered some statements made by Ms. Vissering and Counsel for the Public's statement to the contrary is not supported by the record.

Ms. Vissering was not a witness in this docket. She was not identified as a witness, provided no prefiled testimony, and was not available for technical sessions or cross-examination. Counsel for the public's visual expert relied on a prior of VIA authored by Ms. Vissering in 2012. The Subcommittee did consider the recommendations of Ms. Vissering in the prior docket and, in fact, recognize that the Applicant had adopted many of Ms. Vissering's recommendations.

However, Ms. Vissering's opinions from the 2012 docket were not the only opinions considered by the Subcommittee. The Subcommittee considered the testimony and the VIAs offered by Kellie Connelly and David Raphael. Noting that there was a significant difference of opinion, the Subcommittee, itself, reviewed each and every photosimulation in the record. After conducting that review, the Subcommittee determined that the Project would not have an unreasonable effect on aesthetics. As indicated above, the Subcommittee was also aided by two days of on-site visits. There is no good cause or reason for rehearing after such a review.

I. Effects on Aesthetics – "Rebuttal Testimony"

Counsel for the Public claims that the Presiding Officer improperly precluded her from conducting rebuttal examination of her visual expert at the time of her redirect testimony.

The Applicant asserts that this procedural issue was briefed and addressed by the order denying Counsel for the Public's Motion for Reconsideration and to Re-Open the Record filed on November 14, 2016.

The Presiding Officer issued an eleven (11) page order denying Counsel for the Public's Motion for Reconsideration and to Re-Open the Record. The Presiding Officer found that Counsel for the Public improperly attempted to introduce new testimony during redirect examination. If allowed, the Applicant would have been deprived the opportunity to conduct a full cross-examination of Ms. Connelly. In addition, the Presiding Officer correctly explained

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that Counsel for the Public's written offer of proof, explaining the information she wished to elicit from her expert, was replete with information that was already part of the record.

The Presiding Officer correctly assessed and properly ruled on the issue. There is no good reason or cause for rehearing.

J. Mitigation

Intervenors and Counsel for the Public argue that the Subcommittee's decision was unreasonable because it allowed mitigation measures that did not directly protect the viewshed from any scenic resource. They argue that N.H. CODE OF ADMIN. RULES Site 301.14 requires the Subcommittee to consider the "effectiveness of the measures proposed by the applicant to avoid, minimize, or mitigate unreasonable adverse effects on aesthetics." They claim that payment of $40,000.00 to the Town of Antrim for the enhancement of Gregg Lake, payment of $100,000.00 to the New England Forestry Foundation and placement of over 900 acres of land into conservation easements will not mitigate the visual effects of the Project on aesthetics.

The Intervenors and Counsel for the Public also dispute the Subcommittee's finding that implementation of a radar detection lighting system will effectively mitigate the night-time impact of the Project.

The Applicant argues that the parties extensively litigated and the Subcommittee considered the effectiveness of proposed mitigation measures as measures for addressing the impact on aesthetics. The Applicant states that the Intervenors and Counsel for the Public reiterate arguments already presented and addressed and fail to identify any facts or law warranting rehearing.

As to the effect of Project's radar activated lighting system on aesthetics, the Applicant asserts that the Subcommittee considered this issue during adjudicatory hearings where: (i) Attorney Reimers and Ms. Von Mertens specifically raised their concerns that there is no record

of visual impact of this system; (ii) Mr. Raphael specifically identified the turbines to be lit, the type of lighting to be used and opined that a radar activated system will essentially eliminate the Project's impact on aesthetics at night; and (iii) Counsel for the Public's expert opined that the radar activated lighting system provided a proper form of mitigation of the Project's impact on aesthetics. The Applicant argues that the Subcommittee considered this evidence and testimony and properly determined that the "radar activated system will minimize the impact of the Project on aesthetics." Decision and Order Granting Application for Certificate of Site and Facility, at 121.

The Applicant concludes that the Intervenors provided no evidence or arguments not already considered and evaluated by the Subcommittee.

The Subcommittee conducted an extensive analysis of the mitigation measures during its deliberations and in its final decision. The Subcommittee recognized that wind projects are not susceptible to typical visual screening mitigation due to their height. In considering mitigation of the visual effects the Subcommittee noted that the visual effects on the Willard Pond are mitigated by the elimination of Turbine 10 and a reduction in the height of Turbine 9 as compared to the Antrim I project. The Subcommittee also determined that the additional conservation easement of 989 acres will provide effective visual mitigation in some rural and forested areas in addition to sparing the conserved land from future development.

The arguments for rehearing simply disagree with the Subcommittee's conclusions and do not meet the standard for granting rehearing.

K. Decommissioning

Intervenors and Counsel for the Public argue that N.H. CODE OF ADMIN. RULES Site 301.08(a)(7) requires the Applicant to submit a decommissioning plan demonstrating that all underground infrastructure at a depth less than four feet below grade will be removed from the

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site. The Intervenors and Counsel for the Public assert that the decommissioning plan submitted by the Applicant does not comply with the rule. The plan requires the decommissioning contractor to excavate a trench, remove and pulverize the concrete, and then bury the concrete on-site. The Intervenors and Counsel for the Public argue that the approval of the decommissioning plan was in violation of the rule.

The Applicant argues that the Subcommittee's determination that the reuse of the concrete as fill was consistent with the Committee's rules. The Applicant further argues that the Subcommittee's decision was supported by the record where the Subcommittee received evidence that the practice is consistent with the Department of Environmental Services guidance and there will be no infrastructure remaining on the site because benign concrete does not qualify as infrastructure within the definition of the rule.

In its Decision the Subcommittee noted that the re-use of pulverized concrete as fill is a best management practice approved by the Department of Environmental Services. The concrete infrastructure is removed as part of the process, pulverized on site and used for fill. This process avoids the need to import foreign fill which may cause environmental problems. There is no evidence that the re-use of the pulverized concrete presents a health or public safety issue and it is the preferred environmental method of decommissioning. Once pulverized it is unreasonable to consider the material used as fill to be "infrastructure." The process does not violate N.H. CODE OF ADMIN. RULES Site 301.08(a)(7) as the infrastructure is removed. Rehearing on this issue is denied.

L. Effect on Public Health and Safety – Noise

The Intervenors claim that the Subcommittee's finding that the Project's noise will not have an unreasonable adverse effect on health and safety was erroneous because it was based on unreliable sound assessments that did not model the worst case scenario for noise associated with

the Project. Specifically, the Intervenors argue that the sound assessments prepared by Mr. O'Neal were not reliable because Mr. O'Neal used a ground factor (G Factor) of 0.5 and failed to include tolerance to the ISA 9613-2 model for variability of sound propagation as atmospheric conditions change at the Project site.

Finally, on noise, the Intervenors assert that the decision that the Project will not have an unreasonable adverse effect on health and safety was erroneous because it failed to consider that the Project's noise will be above 40 dBA at a hunting cabin that the Subcommittee erroneously found to be dilapidated.

The Meteorologists argue that the Subcommittee acted unlawfully or unreasonably with regard to noise issues. They assert that the Applicant failed to sustain its burden of proof on noise issues. They also claim that the modeling used by the Applicant's expert was unreliable, failed to model a worst case scenario, employed the wrong G-Factor and failed to consider meteorological ducting of sound.

The Applicant argues that Mr. O'Neal provided extensive testimony about the reasoning for using a 0.5 ground factor and decision not to include tolerance to the ISA 9613-2 model for variability of sound propagation as atmospheric conditions change at the Project site. The Applicant also asserts that Mr. O'Neal's sound modeling complies with the Subcommittee's rules where Mr. O'Neal used the ISA 9613-2 model and his professional judgment on which factors apply to the estimation of the Project's sound. The Applicant asserts that the Subcommittee has considered the critique of Mr. O'Neal's judgment in using certain factors and found his report and testimony sufficiently credible to determine that the Project will comply with the Committee's rules and will not have an unreasonable adverse effect on public health and safety.

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With respect to the noise claims raised by the Meteorologists the Applicant responds that the Sound Level Assessment Report was prepared in compliance with the Subcommittee's rules. The report used Cadna/A noise calculation software that employs the ISA 9613-2 international standard for sound propagation (Site 301.18(c)(1)), considering the effects of topography, ground attenuation, multiple building reflections, drop-off with distance and atmospheric absorption, assuming favorable conditions for sound propagation with corresponding moderate well-developed ground-based temperature inversion. The model assumes that each receptor is always located directly downwind from every turbine simultaneously. The Applicant argues this modeling provided the theoretical "worst case." On the G-factor, the Applicant asserts that the Subcommittee considered the Meteorologists' testimony and correctly found that the G Factor of .5 was reasonable for this Project.

The Subcommittee reviewed the Sound Assessment report prepared by Mr. O'Neal and heard his testimony. Mr. O' Neal was vigorously cross-examined. In addition his opinions were challenged by the testimony of the Intervenors expert, Mr. James. After consideration and deliberation the Subcommittee found Mr. Neal's opinions to be more credible and his Sound Assessment to comport with professional standards and our administrative rules. The motions for rehearing filed by the Intervenors and by the Meteorologists disagree with the Subcommittee's findings and conclusion but do not offer any new or more persuasive arguments or evidence that would require rehearing. Similarly the claims raised by the meteorologists merely repeat the unpersuasive arguments that were presented during the hearings. There is no cause for rehearing.

The Subcommittee also noted in its decision that even if the modeling contains some errors the Applicant will be constrained by the absolute noise limits set out in N.H. CODE ADMIN. RULES Site 301.14 (f)(2)(a), i.e. the greater of 45 dBA or 5 dBA above background levels.

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measured at the L-90 sound level, between the hours of 8:00 a.m. and 8:00 p.m. each day, and the greater of 40 dBA or 5 dBA above background levels, measured at the L-90 sound level, at all other times during each day. *See* N.H. CODE ADMIN. RULES Site 301.14 (f)(2)(a). The turbines will be equipped with equipment to curtail sound emissions to the limits allowed by the rule. Under these circumstances there is no good cause or reason for rehearing.

M. Public Health & Safety - Shadow Flicker

The Intervenors argue that the Subcommittee's failed to consider the effect of shadow flicker outside 1 mile of the zone of potential impact. Specifically, they assert that N.H. CODE OF ADMIN. RULES Site 301.08(a)(2) require the Applicant to analyze shadow flicker "within a minimum of 1 mile of any turbine." They argue that the rule assumes that the properties outside a 1 mile zone of potential impact will be affected and requires the Applicant to analyze the impact of shadow flicker on all structures that may be affected. They concluded that the Applicant's assessment of the Project's shadow flicker and the Subcommittee's determination of the impact of shadow flicker associated with the Project was erroneous and unjust because the Applicant failed to analyze the impact of shadow flicker on all properties that may be affected including properties located outside of the 1 mile evaluation zone.

The Intervenors also argue that the Applicant's assessment of the Project's shadow flicker was unreliable because it used a historical data set for Concord, New Hampshire from the National Climatic Data Center.

The Intervenors also assert that the Subcommittee's decision was unjust and unreasonable because it determined that the Applicant can control shadow flicker within required standards by implementing control protocols not tested in the United States.

The Meteorologists also seek rehearing based on shadow flicker issues. The Meteorologists claim that the shadow flicker modeling performed by Mr. O'Neal was unreliable

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because it failed to account for solar enlargement and other meteorological factors such as wind speed and direction. The Meteorologists claim that the modeling failed to account for reflection of flicker from ice and snow. The Meteorologists also complain that the Subcommittee failed to address certain disagreements between Mr. O'Neal and the Meteorologists representative Fred Ward, Ph.D.

In response to the claims of error, the Applicant argues that the Committee's rules do not require the Applicant to conduct shadow flicker analyses beyond a 1 mile zone of potential impact. The Applicant explains that the shadow flicker analyses assumed bare earth conditions and, considering the real life conditions, the Project's shadow flicker likely will not have an unreasonable adverse effect 1 mile beyond the Project. The Applicant also states that the Intervenors' argument that the Applicant should have analyzed the Project's shadow flicker impact beyond 1 mile was raised by the Intervenors and considered and rejected by the Subcommittee during the adjudicative hearings.

Similarly, the Applicant asserts that concerns associated with the Applicant's ability to control and limit shadow flicker are ameliorated by the condition of the Certificate which requires semi-annual reporting of shadow flicker data. The condition will assure that the absolute limitations on shadow flicker are observed.

The Applicant also responds that the Meteorologists raised no claim not already presented to and evaluated by the Subcommittee during the adjudicative hearings. The Applicant argues that the shadow flicker study prepared by Mr. O'Neal presented: (i) the worst-case calculations if the sun is always shining during the day and the turbines are always operating; and (ii) the expected shadow flicker that reflected the data obtained from the National Climatic Data Center and expected wind turbine operational data. The Applicant asserts that the Meteorologists raised all the issues addressed in their motion during the adjudicative hearings.

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during cross-examination of Mr. O'Neal, and their motion articulates arguments already considered and rejected by the Subcommittee.

In its Decision the Subcommittee found that the Applicant's shadow flicker analysis replicated the "worst case scenario." Under that scenario there were 24 locations where shadow flicker was likely to exceed the maximum limit allowed by our rules. *See* N.H. CODE ADMIN. RULES Site 301.14 (f)(2)(b). Therefore, the Subcommittee applied additional conditions on the project requiring semi-annual reporting of shadow flicker data to the Site Evaluation Committee. With such conditions the Subcommittee found that shadow flicker from the Project would not cause an unreasonable adverse effect. The Subcommittee also notes that there are absolute limitations on shadow flicker that may be enforced by the Committee. *See* N.H. CODE ADMIN. RULES Site 301.14(f)(2)(b).

The motions for rehearing filed by the Intervenors and the Meteorologists do not provide new or more persuasive arguments. The turbines will be equipped with equipment to calculate, record and curtail shadow flicker to the limits allowed by the rule. Under these circumstances there is no good cause or reason for rehearing. The Subcommittee believes that the conditions along with the absolute maximum shadow flicker limits contained in N.H. CODE ADMIN. RULES, SITE 301.14 (f)(2)(b) will protect the public and assure that there will not be an unreasonable adverse impact on health and public safety from shadow flicker.

N. Ice Throw

The Intervenors argue that the possibility of ice throws caused by the Project will have an unreasonable adverse effect on public health and safety. They argue that the Subcommittee unreasonably ruled otherwise, finding no unreasonable adverse effect on the health and safety of the public. They claim that the Subcommittee failed to consider evidence and testimony presented by the Intervenors.

The Intervenors assert that the only evidence on the Project's distance of ice throw from the Applicant was the testimony of Darrell Stovall of DNV GL who testified that 250 meters is a general assessment and industry accepted number. The Intervenors argue that to contradict Mr. Stovall's statement, they filed a report entitled "Methods for Evaluating Risk Caused by Ice Thrown and Ice Fall from Wind Turbines and Other Tall Structures." They assert that, based on this report, the Subcommittee could have calculated that the Project's ice throw distance could reach 300 meters. They claim that the Subcommittee erroneously disregarded "objective evidence from disinterested third-parties" and erroneously determined, based on Mr. Stovall's testimony, that the Project will not have an unreasonable adverse effect on public health and safety.

The Meteorologists also seek rehearing based on the ice throw issue. They claim that the Subcommittee accepted the representations of the Applicant and disregarded the opinions of Dr. Ward. Therefore they argue that the decision is unlawful and unreasonable.

The Applicant responds that the Intervenors identified no errors of fact or reasoning of law that resulted in an unlawful or unjust decision, but simply stated their disagreement with the Subcommittee's determination.

In granting the Certificate the Subcommittee considered the testimony and exhibits about ice shedding submitted by all parties. The Subcommittee found the testimony of the Applicant's witness, Darrell Stovall, to be the most credible. Mr. Stovall is a principal engineer with one of the worldwide leading technical consultancies on wind power. Mr. Stovall testified about the experiences of his company and the industry in general with respect ice throw. t is not unlawful or unreasonable for the Subcommittee to rely on the expertise of Mr. Stovall and his company to determine that ice throw will not cause an unreasonable adverse impact on public health and safety. But that is not all that the Subcommittee considered. The Subcommittee also considered

the fact that the turbines will be equipped a turbine condition monitoring system that detects increases in vibration levels due to ice buildup and automatically shuts down the turbine to avoid ice throw. The Subcommittee also approved the certificate based on the establishment of certain setback and signage criteria contained within the agreement with the Town of Antrim.

The motions for rehearing filed by the intervenors and by the meteorologists merely restate arguments that were made during the course of the proceeding. They do not provide any new material or more persuasive arguments. Rehearing is unnecessary.

O. Effect on Natural Environment

The Intervenors argue that the Applicant failed to assess the impact of the Project on large mammals, *i.e.* bears and bobcats. They assert that Mr. Block specifically testified about the signs of bears and bobcats in and around the Project and opined this area presented a core habitat for these species. The Intervenors believe that the Subcommittee should have concluded that the Site represents a "significant habitat resource" for these species as defined by N.H. CODE OF ADMIN. RULES Site 102.49, and should have required the Applicant to assess the impact of the Project on these species under N.H. CODE OF ADMIN. RULES Site 301.07(c). They conclude that determination that the Project will not have an unreasonable adverse effect on the natural environment without evaluation of the Project's effect on bears and bobcats is unjust and erroneous.

The Intervenors also argue that the Subcommittee erroneously allowed the Applicant to determine when identified boulders cannot be avoided.

The Applicant states that the arguments raised in the Intervenors' Motion are the same arguments the Intervenors raised during adjudicative hearings and no information was provided that the Subcommittee failed to consider. The Applicant asserts that it filed a wildlife habitat assessment discussed during adjudicative hearings (Tr. Day 2, Afternoon Session, at 153),

provided testimony indicating that state and federal agencies raised no concerns about the impact of the Project on large mammals (Tr. Day 2, Afternoon Session, at 95, 146-147), and provided additional testimony that the effect on the mammals, including bears, bobcats and moose will be minimal (Tr. Day 2, Afternoon Session, at 96, 116, 146).

This argument like other proffered by the Intervenors merely rehashes claims made during the hearings and rejected by the Subcommittee. Rehearing is unnecessary.

P. Orderly Development of the Region - Views of Municipal and Regional Planning Agencies

The Intervenors claim that the Subcommittee's decision that the Project will not have an unreasonable adverse effect on the orderly development of the region was erroneous and unjust because the Subcommittee failed to consider that the proposed land use is contrary to priorities expressed in the Master Plan, is not permitted in the Rural Conservation Zone under the Zoning Ordinance of the Town of Antrim, and the people of Antrim indicated their opposition to the Project by voting against an amendment to the Ordinance that would allow construction and operation of the Project.

The Intervenors also argue that the Subcommittee's decision was unjust because it failed to consider the views of other municipalities affected by the Project and the effect of the Project on other communities, including the ConVal School District.

The Applicant asserts that the Intervenors claim that the Subcommittee failed to consider the Town of Antrim's Zoning Ordinance and Master Plan is contrary to the record. The Applicant also asserts that the argument that the Project is not zoning consistent with the Town and Antrim's Master Plan and Zoning Ordinance were fully litigated by the parties during the adjudicative hearings was specifically addressed by the Subcommittee during deliberations. Tr. Day 3, Morning Session, 15-16. Similarly, the record indicates that the issue of public support in

Antrim was considered and adjudicated by the Subcommittee. Tr. Day 6, Afternoon Session, at 155-156; Tr. Day 7, Morning Session, t 26-32; Tr. Day 7, Morning Session, at 133-135; Tr. Day 9, Morning Session, at 32-35. The Applicant also asserts that the Subcommittee addressed concerns raised by the municipalities that participated and specifically mentioned a letter from the Town of Deering stating its concerns during deliberation. Deliberation Tr., Day 3, Morning Session, at 43-44. Finally, the Applicant states that the Subcommittee received testimony that specifically addressed the impact of the Project on surrounding communities and the ConVal School District.

The Subcommittee devoted extensive consideration to the issue of whether the project would interfere with the orderly development of the region giving due consideration to views of municipal and regional planning commissions and municipal governing bodies. After consideration of those views and other relevant evidence the Subcommittee determined that the granting of a Certificate would not interfere with the orderly development of the region. The motions for rehearing do not present good cause for reconsideration of that finding.

Q. Real Estate Values

The Intervenors assert that the Subcommittee's decision that the Project will not have an unreasonable adverse effect on property values is unsupported and contradicted by the record. Specifically, they argue that the Subcommittee determined that it was not persuaded that the Project will have no adverse effect on real estate values. They conclude that the Subcommittee should have decided that the Project will have an unreasonable adverse effect on property values and should have denied the Application. They opine that the finding of no unreasonable adverse effect is contrary to the record and arbitrary.

The Intervenors argue that the Subcommittee mistakenly concluded that there was insufficient evidence identifying and justifying a property value guarantee. The Intervenors

assert that they attempted to submit evidence of property value guarantees used in an unrelated Massachusetts Project, but this evidence was stricken by the Presiding Officer. They also assert that they filed a letter addressed to the Antrim Board of Selectmen requesting inclusion of property value guarantees into the agreement between the Town of Antrim and the Applicant. They assert that the record should be re-opened so they can submit evidence required for establishment of property value guarantees.

The Applicant responds that the Subcommittee's finding is consistent with the determination that the Project will not have an unreasonable adverse effect on property values. The Applicant argues that the decision not to require a property value guarantee was reasonable. The Applicant concludes that the Intervenors failed to state issues of fact and law warranting a rehearing in this docket.

The Subcommittee recognized that construction and operation of the Project might have an effect on the value of some properties in the area. However, the Subcommittee found that the effect, if any, would be small and was not unreasonable. This finding was based on the evidence in the record. The Subcommittee also considered the application of a property value guarantee condition but found that condition to be impractical. The motions for rehearing on this issue do not offer an evidence or argument that has not already been fully considered by the Subcommittee. Rehearing based on this issue is denied.

R. Financial Capacity

The Intervenors and the Meteorologists argue that the Subcommittee failed to consider the effect of implementing ice throw, shadow flicker and noise mitigation measures will have on the Project's capacity and ability to generate sufficient cash flow required for its operation. The Intervenors and Meteorologists suggest that the mitigation measures will decrease electrical production by the turbines to a degree that will render the project to be financially inefficient.

The Applicant asserts that the Intervenors argument is not supported by the record. The Applicant's witness, Mr. Weitzner, specifically testified that the Applicant knows of the constraints associated with implementation of ice throw, noise and shadow flicker mitigation. He testified that those mitigation procedures are irrelevant to the revenue of the Project Tr. Day 1, Morning Session, at 99-100; Tr. Day 1, Afternoon Session, at 92-93.

The Applicant has appropriately employed methods to mitigate ice throw, noise and shadow flicker. These methods are commonly used throughout the industry and are common sense responses to potential problems. The suggestions by the Intervenors and the Meteorologists that curtailment and other mitigation measures will render the project unprofitable are mere conjecture. They do not amount to good cause or reason for rehearing.

S. Flashing Lights at Night

The Meteorologists argue that the Subcommittee improperly concluded that the aviation safety lighting system will not have an unreasonable adverse effect on public health and safety. They claim that the Subcommittee did not consider the time the lights will be on, the pattern of the light and its effect on residents. The Meteorologists claim the Subcommittee did not consider the Project's night lights and its appearance during bright winter nights.

The Applicant asserts that the Meteorologists presented no new arguments or evidence and are simply attempting to re-litigate matters already resolved.

The Applicant also argues that the Meteorologists have no basis for their claims that the radar activated aviation safety lighting will cause an unreasonable impact. The Applicant points out that Dr. Ward had an ample opportunity to cross-examine all of the witnesses and did not elicit any concern that aviation safety lighting would have any adverse effect on the region.

In his motion for rehearing Dr. Ward provides a scenario suggesting that the radar activated aviation safety lighting causing sleeping residents to awake because of "reverse shadow

flicker." There is simply no evidence in the record supporting that assertion. Having considered the evidence in the record the Subcommittee determined that the aviation safety lighting is a requirement for public safety. The radar detection activation system will mitigate the minor impact of the aviation safety lighting. There is no good cause or reason for rehearing.

T. "Tipping the Scales of Justice"

The Meteorologists final complaint is that the Subcommittee overlooked the Meteorologists' testimony and evidence in favor of testimony submitted by the Applicant and Mr. O'Neal. Dr. Ward asserts that the lack of acknowledgement of his (Ward's) testimony and allegedly superior qualifications constitutes acceptance of his opinions by the Subcommittee and therefore the Subcommittee should have denied the Certificate. He claims that the scales of justice were unfairly "tipped" because the Subcommittee did not sufficiently credit his opinions and authority.

The Subcommittee as the trier of fact may accept or reject the testimony of any witness. *See In re Aube*, 158 N.H. 459, 466 (2009.) Where there is a dispute in the testimony an agency is not required to explain the reasons for rejecting expert testimony. *See In Re Blake*, 137 N.H. 43, 49-50 (1993.) In assessing which witnesses to believe it was not necessary for the Subcommittee to explain away the criticisms and opinions offered by Dr. Ward. It was sufficient for the Subcommittee to explain that it found the Applicant's experts and testimony to be credible and persuasive. The motions for rehearing present no cogent reasons to upset that finding and must be denied.

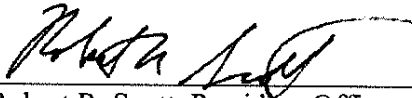
V. CONCLUSION

In granting the Certificate the Subcommittee undertook a thorough and careful review of the Application, the evidence and the arguments presented by all parties. The Subcommittee thoughtfully applied the statutory criteria to the evidence presented and determined that the

issuance of a Certificate was in the public interest. The motions for rehearing present no good cause or reason to upset that determination.

The motions for rehearing and/or reconsideration filed by Counsel for the Public, the Intervenors and the Meteorologists are denied.

SO ORDERED this twenty-first day of June, 2017.



Robert R. Scott, Presiding Officer
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