#### THE STATE OF NEW HAMPSHIRE

### BEFORE THE SITE EVALUATION COMMITTEE

**DOCKET NO. 2012-01** 

### APPLICATION OF ANTRIM WIND ENERGY, LLC FOR A CERTIFICATE OF SITE AND FACILITY

### POST-HEARING MEMORANDUM OF LAW OF AUDUBON SOCIETY OF NEW HAMPSHIRE

The Audubon Society of New Hampshire (Audubon), by and through its attorneys, BCM Environmental & Land Law, PLLC, files the following post-hearing memorandum of law, and states as follows:

- 1. The current application is not merely another wind facility application to be approved with conditions.
- 2. Rather, the subcommittee is compelled to deny it because of uncontroverted and credible expert opinion that if approved the project would have an unreasonable adverse effect upon Willard Pond and upon the de Pierre-feu Willard Pond Wildlife Sanctuary.
- 3. Further, the application is not approvable because the project will cause unreasonably adverse visual, noise, environmental, and wildlife effects, all as detailed subsequently.
- 4. Should the subcommittee disagree and find that the application is approvable, also discussed subsequently are the conditions Audubon would request.

#### I. SUMMARY OF THE APPLICATION

- 5. Antrim Wind Energy, LLC (applicant)<sup>1</sup> filed an Application for a Certificate of Site and Facility to construct and operate a renewable energy facility in the Town of Antrim, New Hampshire which would consist of not more than ten (10) wind turbines of up to 500 feet in height.
- 6. Each wind turbine would have a nameplate capacity of up to three megawatts (MW), for a total nameplate capacity of 30 MW.
- 7. To date, the particular wind turbines proposed have never been constructed, operated, and field-tested anywhere in the world.
- 8. The location of the proposed facility within Antrim is on the ridge formed by Willard Mountain and Tuttle Hill.
- 9. The application calls for conservation easements for some, but not all, of the properties upon which the facility would be constructed and operated.
- 10. The conservation easements would be conveyed to the Harris Center for Conservation only if the facility is approved and commences operation.

#### II. dePEIRREFEU-WILLARD POND WILDLIFE SANCTUARY

- 11. Audubon is a nonprofit, statewide, membership organization with a mission to protect New Hampshire's natural environment for wildlife and people.
- 12. As part of its mission, Audubon owns in fee and currently manages thirty-nine (39) wildlife sanctuaries throughout New Hampshire, with a total acreage of about 7,400.

<sup>&</sup>lt;sup>1</sup> Please note that the term "applicant" as used in this document includes the applicant's agents, witnesses, representatives, and counsel.

- 13. At nearly 1,700 acres, the dePierrefeu-Willard Pond Wildlife Sanctuary (Sanctuary) is Audubon's largest property.
- 14. The distance between the property line of the Sanctuary nearest the site and the nearest proposed turbine is roughly less than one (1) mile.<sup>2</sup>
- 15. Acquisition of much of the land in the Sanctuary has come about through the foresight and generosity of Elsa dePierrefeu Leland and her family.<sup>3</sup>
- 16. In addition, Audubon holds conservation easements on about 1,300 acres of lands adjacent to the Sanctuary, bringing the total of Audubon's protected lands in the vicinity of the Sanctuary to about 3,000 acres.<sup>4</sup>
- 17. These 3,000 acres are part of a 'supersanctuary' that totals over 30,000 acres of protected land in the area.<sup>5</sup>
  - 18. Willard Pond lies in the interior of the Sanctuary.
- 19. It is a State-designated 'Great Pond' and pristine water body of approximately 100 acres with considerable aesthetic values, including an undeveloped shoreline.
- 20. The distance between the northern side of Willard Pond (which is the side closest to the project) and the nearest proposed turbine is roughly less than 1.5 miles.<sup>6</sup>
  - 21. No gasoline-powered boats are permitted on Willard Pond.<sup>7</sup>
- 22. Surrounding Willard Pond are several forested peaks, including Bald Mountain and Goodhue Hill, which have hiking trails to their summits that provide scenic views.

<sup>&</sup>lt;sup>2</sup> Exhibit AWE-3, Application, Volume Three, Appendix 9A, Saratoga Associates Visibility Impact Analysis, p. 9.

<sup>&</sup>lt;sup>3</sup> Tr. Day 9, AM, ASNH-Von Mertens, pp. 160:11 to 162:22.

<sup>&</sup>lt;sup>4</sup> Exhibit ASNH-5, Attachment FVM-3: Willard Pond-A Legacy of Protection.

<sup>&</sup>lt;sup>5</sup> Tr. Day 9, AM, ASNH-Von Mertens, pp. 160:11 to 162:22; Exhibit ASNH-23, Pre-Filed Testimony of Frances Von Mertens, July 31, 2012, p. 2.

<sup>&</sup>lt;sup>6</sup> Exhibit AWE-3, Application, Volume Three, Appendix 9A, Saratoga Associates Visibility Impact Analysis, p. 9.

<sup>&</sup>lt;sup>7</sup> Exhibit ASNH-23, Pre-Filed Testimony of Frances Von Mertens, July 31, 2012, p. 7.

- 23. Large numbers of visitors come to the Sanctuary to enjoy wildlife viewing, fishing, environmental education, scenic views, and the quiet setting.<sup>8</sup>
- 24. The diverse mixture of species, abundance of wildlife, and its remoteness and natural condition make the Sanctuary unique.<sup>9</sup>

#### III. APPLICABLE LEGAL STANDARDS

- 25. The applicant is required to prove by a preponderance of evidence facts sufficient to satisfy all of the standards set forth in RSA 162-H:16, as found by the subcommittee duly authorized to issue the decision on the application.<sup>10</sup>
- 26. While RSA 162-H:16 sets forth several standards, Audubon focuses only on those standards most at the heart of its mission.
- 27. The applicant must prove that it has "adequate financial, technical, and managerial capability to assure construction and operation of the facility in continuing compliance with the terms and conditions of the certificate."
- 28. The applicant must prove that the facility will "not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal and regional planning commissions and municipal governing bodies."<sup>12</sup>
- 29. The applicant must prove that the facility will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety.<sup>13</sup>

<sup>&</sup>lt;sup>8</sup> Exhibit ASNH-23, Pre-Filed Testimony of Frances Von Mertens, July 31, 2012, p. 6.

<sup>&</sup>lt;sup>9</sup> See Tr. Day 7, AM, Vissering, p. 41:9-17 (characterizing the Sanctuary as "primitive").

<sup>&</sup>lt;sup>10</sup> See N.H. Admin. R. Site 202.19 (a), (b).

<sup>&</sup>lt;sup>11</sup> RSA 162-H:16, IV(a).

<sup>&</sup>lt;sup>12</sup> RSA 162-H:16, IV(b).

<sup>&</sup>lt;sup>13</sup> RSA 162-H:16, IV(c).

- 30. The subcommittee's decision must be based only on the record and must be made by a majority of the full membership of the subcommittee. 14
- 31. The subcommittee is authorized to consult with interested regional agencies in its consideration of the application. <sup>15</sup>
- 32. The subcommittee must consider available alternatives and fully review the environmental impact of the site and other relevant factors before acting on the application. <sup>16</sup>
- 33. The subcommittee is authorized to condition approval of an application on such terms as it deems necessary, including reasonable monitoring and the results of agency studies whose study period exceeds the application period.<sup>17</sup>
- 34. The subcommittee may not approve the application unless all of the standards are met, meaning that even if only one standard is not met, the subcommittee must deny the application.

## IV. THE LAND CONSERVATION PLAN FAILS TO ADEQUATELY MITIGATE THE UNREASONABLE ADVERSE EFFECTS OF THE FACILITY.

- 35. The sum of the applicant's land conservation plan is to purchase conservation easements on four properties upon which the facility would be located.
- 36. The applicant does not propose to purchase a conservation easement for the largest leased parcel, upon which four turbines of the facility would be situated and which lies in the middle of the Tuttle ridge.
- 37. The four proposed conservation easements allow for construction of specified residences and buildings ancillary to forestry and agriculture, both on the ridge line and at lower

<sup>15</sup> RSA 162-H:16, II.

<sup>&</sup>lt;sup>14</sup> RSA 162-H:16, II.

<sup>&</sup>lt;sup>16</sup> RSA 162-H:16, IV.

<sup>&</sup>lt;sup>17</sup> RSA 162-H:16, VI, VII.

elevations, and the practice of forestry and agriculture without any requirement for review or approval of site plans or management plans by the easement holder or any other entity. 18

- 38. The lack of any requirement for approval of forestry management plans is especially because the applicant did not know that the state of New Hampshire neither requires nor provides certification or licensing of loggers. <sup>19</sup>
- 39. Subsequent to decommissioning of the facility, development on the property that is unprotected by conservation easement would be limited only by local zoning.
- 40. The post-decommissioning presence of the four-mile roadbed, cleared and leveled turbine pads, and the flattened out ridge line would greatly improve the desirability and logistics of developing on the ridge wherever permitted by zoning and conservation easements.
- 41. The road constructed for the facility would create some access for development subsequent to the facility.
- 42. Because the terms of one easement prohibit the use of the road by any abutter, and terms of the other easements prohibit granting of access across the properties, the applicant argues that the road to the facility would not facilitate development subsequent to decommissioning.
- 43. Yet, the conservation easements lack explicit protection of the ridge line and as a result nothing prohibits development there after the facility is decommissioned.
- 44. Plus, the facility would be decommissioned at least one generation into the future which creates the risk, as frequently happens, that subsequent easement and fee owners may not be aware of the easements' terms.

<sup>&</sup>lt;sup>18</sup> *Contra* Tr. Day 9, AM, ASNH-Brown, p. 88:10-21 (ASNH logging pursuant to management plan). <sup>19</sup> Tr. Day 4, PM, Martin, p. 50:6-10.

- 45. Moreover, the application provides no protection against use of the portions of the access road on the properties with no easements for purposes of building on and near the ridge line to the extent allowed by local zoning.
- 46. The applicant completely failed to consider whether the developments permitted by the conservation easements and facilitated by the flattening of the ridge line would have an unreasonable adverse effect on aesthetics, water quality, the natural environment, or public health and safety.<sup>20</sup>
- 47. Overall, the applicant suggested that conveying the conservation easements would cure any unreasonable effects of the project.
- 48. However, the conservation easements are "very inadequate" and "paltry" because of their relatively small size and the development they allow.<sup>21</sup>
- 49. The conservation easements fall far short of allaying the numerous unreasonable adverse effects of the proposed project.

## V. THE PROJECT WILL HAVE AN UNREASONABLE ADVERSE EFFECT ON AESTHETICS.

- 50. To demonstrate that the facility will not have an unreasonable adverse effect on aesthetics the applicant performed a visual impact analysis.
- 51. Based on that and other factors, the applicant concluded that the facility would not have an unreasonable adverse effect on aesthetics.
- 52. On the other hand, the Counsel for the Public presented credible expert evidence from J. Vissering that the facility would have an unreasonable adverse effect on aesthetics.<sup>22</sup>

<sup>21</sup> Tr. Day 7, AM, Vissering, pp. 49 to 54, 93 to 96; Tr. Day 7, PM, Vissering, pp. 14-15.

<sup>&</sup>lt;sup>20</sup> Tr. Day 5, PM, Guariglia, p. 17:18-23.

<sup>&</sup>lt;sup>22</sup> Exhibit PC 1, Testimony of Jean Vissering, p. 2; Exhibit PC 4, Supplemental Testimony of Jean Vissering, p. 1.

53. Ms. Vissering testified about a number of discrete visual considerations that the applicant ignored, including that the project would be visible from so many important public recreational resources throughout the area and the magnified effect that would create and that because ninety (90) to ninety-five (95) percent of the area is forested, the open area views of the five (5) to ten (10) percent of the area that is not forested are particularly important.<sup>23</sup>

### a. The Applicant Failed to Analyze Visual Effect Upon the Sanctuary or Willard Pond, and Relied Instead on a Flawed Visibility Study.

- 54. The applicant's visibility study was flawed in three important ways.
- 55. First, the visibility study mischaracterized the way the Sanctuary is used, for example, categorizing users of the Sanctuary as "stationary" when in reality users hike and ski on a number of trails and canoe, kayak, and swim at Willard Pond.
- 56. Second, the visibility study erroneously assumed that all of the land that was forested at the time of the study would remain forested, although logging, in accordance with an approved forest management plan, is permitted on much of the Sanctuary.
- 57. In fact, holdings of Audubon and holdings along the proposed road to the facility have recently been harvested, which resulted in forest clearings that did not exist when the applicant's visibility study was performed.<sup>24</sup>
- 58. Third, and finally with respect to the visibility study, the applicant failed to appreciate and include in its study that the Sanctuary and Willard Pond are used during dawn, dusk, night, and winter.<sup>25</sup>

<sup>&</sup>lt;sup>23</sup> Tr. Day 7, PM, Vissering, pp. 25:15-24; p. 26:7-20; 34:16 to 35:21.

<sup>&</sup>lt;sup>24</sup> Tr. Day 5, PM, Guariglia, pp. 41:16 to 43:16; Tr. Day 9, AM, ASNH-Brown, p. 82:5-24.

<sup>&</sup>lt;sup>25</sup> Tr. Day 9, AM, ASNH-Brown, p. 83:1 to 84:14.

### b. The Sanctuary and Willard Pond are of at Least Statewide Significance.

- 59. Another component of analyzing the visual effect of the facility is determining the significance of the Sanctuary in general and Willard Pond in particular.
- 60. The evidence supports the conclusion that both are of statewide, New Englandwide, and even national significance.
- 61. First, the Quabbin to Cardigan Corridor Initiative is of statewide or New Englandwide significance. <sup>26</sup>
- 62. The Quabbin to Cardigan Corridor Initiative is a collaborative effort of multiple partners in a multi-state focus area to conserve the Monadnock Highlands of north-central Massachusetts and western New Hampshire.<sup>27</sup>
  - Willard Pond and the Sanctuary are included in the planned corridor. 63.
- 64. Second, the federal government has invested over \$3.5 million through the Forest Legacy Program to conserve land that is part of and directly abutting the Sanctuary, known as Willard Pond Phases I and II.<sup>28</sup>
- 65. The Forest Legacy Program is a federal program to protect land based on four criteria: intact (unfragmented) forests; wildlife habitat; aesthetics; and public recreation.<sup>29</sup>
- 66. In addition to federal funds, the state has invested over \$400,000 in matching funds for the Willard Pond Forest Legacy projects. 30
- 67. Third, and finally with respect to the significance of the Sanctuary and Willard Pond, the Sanctuary is unique because it provides a wilderness experience, i.e. human infrastructure can be neither seen nor heard throughout much of the Sanctuary.

<sup>28</sup> Tr. Day 9, AM, ASNH-Von Mertens, pp. 63:21-24; 68:19 to 69:16.

 <sup>&</sup>lt;sup>26</sup> Tr. Day 9, AM, ASNH-Brown, pp. 144:1 to 145:9; Tr. Day 7, PM, Vissering, p. 41:3.
 <sup>27</sup> Tr. Day 9, AM, ASNH-Brown, pp. 144:1 to 145:9.

<sup>&</sup>lt;sup>29</sup> Tr. Day 9, AM, ASNH-Von Mertens, pp. 63:21-24; 68:19 to 69:16; 159:2 to 160:6.

<sup>&</sup>lt;sup>30</sup> Tr. Day 9, AM, ASNH-Von Mertens, pp. 63:21-24; 68:19 to 69:16.

68. That the Sanctuary and Willard Pond are of at least statewide significance undermines much of the applicant's evidence regarding aesthetic effects.

> The Subcommittee Must Accept Credible and Uncontroverted Expert Evidence of Unreasonable Adverse Effect Upon the Sanctuary and Willard Pond.

69. The applicant "did not analyze the level of impact from Willard Pond or the Sanctuary."31

70. The applicant merely performed a visibility study to determine whether the facility would be seen from various surrounding locations.

71. Only the Counsel for the Public's witness performed a visual impact analysis that included a detailed resource by resource investigation and specifically evaluated effects on the Sanctuary and Willard Pond. 32

72. Further, only the Counsel for the Public's witness opined specifically about the visual effect from Willard Pond and the Sanctuary, and she explicitly opined that the facility would have an unreasonable adverse effect on them.<sup>33</sup>

73. Because the applicant did not perform any visual impact analysis on Willard Pond or the Sanctuary, the Public's opinion about the unreasonable adverse effect of the facility upon the Sanctuary and Willard Pond is an uncontroverted expert opinion.

74. Because the Public's opinion has been accepted as so credible in prior matters, and because no party elicited any information to meaningfully impugn her credibility, her testimony must be accepted as credible in this matter.

<sup>&</sup>lt;sup>31</sup> Tr. Day 5, PM, Guariglia, p. 23:8-10. <sup>32</sup> Tr. Day 5, PM, Guariglia, pp: 124:7 to 125:12.

<sup>&</sup>lt;sup>33</sup> Tr. Day 7, AM, Vissering, pp. 63: 20 to 64:14.

- 75. As a result, the subcommittee must accept her expert opinion, unless it can somehow articulate some point of evidence in the record which discredits the uncontroverted expert opinion.<sup>34</sup>
- 76. In addition, numerous other witnesses testified that the project will have an unreasonable adverse effect on views.<sup>35</sup>

## VI. THE PROJECT WILL HAVE AN UNREASONABLE ADVERSE EFFECT ON THE NATURAL ENVIRONMENT.

- 77. Underscoring all of the other unreasonable adverse effects the facility would impose on the natural environment is the fact that the facility would fragment substantial portions of intact forest lands and habitat that the state's Wildlife Action Plan categorizes as the highest-ranked habitat in New Hampshire.
- 78. Not only would the facility be constructed and operated upon highest-ranked habitat, but it would also bisect an important and very narrow link between two sections of highest-ranked habitat.
- 79. The fragmentation resulting from the project is significant because it exacerbates most of the issues discussed in the subsequent sections.
- 80. The applicant's attempts to address the fragmentation issue, both in testimony and in its Avian and Bat Protection Plan (ABPP), fail to demonstrate no unreasonable adverse effect.
- 81. Further, the ABPP and the applicant's efforts to prove no other unreasonable adverse effects to the natural environment also fail in several important respects, as follows.

<sup>35</sup> See e.g. Exhibit ASNH-23, Pre-Filed Testimony of Frances Von Mertens, July 31, 2012, pp. 11-12.

<sup>&</sup>lt;sup>34</sup> See Appeal of Pennichuck Water Works, Inc. (New Hampshire Public Utilities Commission), 160 N.H. 18, 24 (2010) (accepting the Public Utility Commission's rejection of uncontroverted expert opinion that the PUC found not credible because it was contrary to state law); Continental Paving, Inc., et al. v. Town of Litchfield, 158 N.H. 570, 575 (2009) (affirming the trial court's finding that a Zoning Board of Adjustment's decision was unreasonable because the board's discrediting of uncontroverted expert opinion was not based on any evidence in the record).

- 82. Of note, the ABPP provides no meaningful process for dispute resolution.
  - a. The Facility Will Cause Unreasonably Adverse Effects of Noise in The Sanctuary and Willard Pond.
- 83. The applicant has failed to prove that the project will not have an unreasonably adverse effect as it relates to sound, especially given the unproven and untested status of the turbines.
  - 84. Part of the reason people go to the Sanctuary is to enjoy the quiet sound of nature.
- 85. The recorded sound levels of the "almost wilderness" in and around the proposed facility were as low as eighteen (18) decibels.<sup>36</sup>
- 86. If the turbines are ten (10) to fifteen (15) decibels louder than the ambient natural sounds, the turbines destroy that part of the wilderness experience.<sup>37</sup>
- 87. Evidence showed that the turbines will cause an increase in noise by as much as 20 to 30 decibels in wilderness areas like the Sanctuary. 38
- 88. While some natural sounds may occasionally be at the same decibel level as the turbines, the turbine-produced sounds are of a completely foreign audio character compared to the sounds of nature.<sup>39</sup>
- 89. Even if users of the Sanctuary are not aware of hearing turbine noise, they may be experiencing adverse physiological effects that lessen the wilderness experience.<sup>40</sup>
  - 90. Physiological effects have been documented as far as three miles from a facility. 41

<sup>&</sup>lt;sup>36</sup> Tr. Day 8, AM, James, p. 125:7-16.

<sup>&</sup>lt;sup>37</sup> Tr. Day 8, AM, James, p. 144:16-24.

<sup>&</sup>lt;sup>38</sup> Exhibit NB-1, Pre-filed Direct Testimony of Richard R. James, July 30, 2012, p. 5.

<sup>&</sup>lt;sup>39</sup> Tr. Day 8, AM, James, p. 145:3-13.

<sup>&</sup>lt;sup>40</sup> Tr. Day 8, PM, James, pp. 115:8 to 116:9.

<sup>&</sup>lt;sup>41</sup> Tr. Day 8, PM, James, pp. 115:8 to 116:9.

- 91. With respect to Willard Pond, it is well known that sound travels clearly over water because water is reflective.<sup>42</sup>
- 92. The applicant's data collection and reporting of background sound at and around the proposed site were flawed and resulted in overestimating the background noise. 43
- 93. Studies show that thirty-five (35) decibels is a threshold above which complaints from those near a facility noticeably increase.<sup>44</sup>
- 94. Further, the larger the turbine, and those proposed here would be some of the largest in the world, the more low-frequency sound they produce. 45
- 95. The applicant claimed that the turbine manufacturer would guarantee the level of noise created from the turbines.
- 96. However, the so called "guarantee" relates only to the noise that the turbines create in extremely specific circumstances which are unlikely to exist at the proposed site. 46
- 97. Plus, because no turbine of this kind is in operation anywhere in the world it cannot be known how the product will perform on site and in commercial operation compared to the design analysis and predictions of how it will perform.
- 98. All told, the applicant has failed its burden to prove by a preponderance of the evidence that the project will not have an unreasonable effect with respect to noise.

<sup>&</sup>lt;sup>42</sup> Tr. Day 8, PM, James, p. 171:16-23.
<sup>43</sup> Tr. Day 8, PM, James, pp. 115:8 to 116:9; 175:5-21; 181:19 to 184:7; 185:6-19; 191:1 to 195:24.

<sup>&</sup>lt;sup>44</sup> Tr. Day 8, AM, James, p. 140:1-20.

<sup>&</sup>lt;sup>45</sup> Tr. Day 8, AM, James, pp. 141:5-12; 154:10 to 155:5.

<sup>&</sup>lt;sup>46</sup> Tr. Day 8, PM, James, pp. 145:20 to 147:15.

# b. The Facility Will Have an Unreasonable Adverse Effect on the Common Nighthawk, a State-Endangered Species.

- 99. Common Nighthawks nest on gravel or bedrock surfaces, such as those that currently exist on exposed ledges at the proposed site and those that the development of the project would indirectly create along roadways and on turbine pads.<sup>47</sup>
- 100. Construction of the facility may destroy currently available Common Nighthawk nesting habitat through blasting of existing exposed ledge. 48
- 101. Known turbine-related mortality of Common Nighthawks has occurred at the Lempster Wind Energy facility, after several years of operation.<sup>49</sup>
- 102. Further research is necessary to determine how best to prevent Common Nighthawk mortality at New Hampshire's wind facilities.<sup>50</sup>
- 103. No specific surveys were conducted for the presence of Common Nighthawks during their breeding season, nor were breeding bird surveys conducted at a time of day when Common Nighthawks are most active. <sup>51</sup>
- 104. As a result, the applicant used only incidental observations as the basis for its survey of Common Nighthawks in the area.
  - 105. Such method is inadequate.<sup>52</sup>
- 106. Nonetheless, incidental observations documented the presence of Common Nighthawks in the project vicinity during the breeding season, as was the case during preconstruction surveys at the Lempster facility.<sup>53</sup>

<sup>&</sup>lt;sup>47</sup> Tr. Day 9, AM, ASNH-Foss, p. 16:17-21.

<sup>&</sup>lt;sup>48</sup> Tr. Day 4, Martin, p. 30:8-12.

<sup>&</sup>lt;sup>49</sup> Tr. Day 3, PM, Valleau, p. 109:11-19; Tr. Day 4, AM, Gravel, p. 43:10-22; Tr. Day 9, AM, ASNH-Foss, pp. 18:11 to 19:3.

<sup>&</sup>lt;sup>50</sup> Tr. Day 9, AM, ASNH-Foss, pp. 58:6-18.

<sup>&</sup>lt;sup>51</sup> Tr. Day 4, AM, Valleau & Gravel, p. 40:1 to 42:23; Tr. Day 9, AM, ASNH-Brown, p. 42:2-7.

<sup>&</sup>lt;sup>52</sup> Tr. Day 9, AM, ASNH-Brown, p. 42:2-7.

- 107. Other parties have observed the Common Nighthawk feeding near Tuttle Ridge.
- 108. The construction of roads and turbine pads along the ridge line would create new areas of suitable nesting habitat for Common Nighthawks in immediate proximity to turbines.<sup>54</sup>
- 109. This newly created habitat would remain available to Common Nighthawks throughout the operational life of the facility.
- 110. Common Nighthawk mortality as occurred at the Lempster facility could occur at the proposed facility because of similar indications of its presence.
- 111. Despite the presence of a state-endangered species and a demonstrated risk of turbine-related mortality at a New Hampshire wind facility, the applicant has no plan for conducting annual surveys for Common Nighthawk presence within the project area.<sup>55</sup>
- 112. Without such surveys, mortality risk may be unknown, and as shown in the Lempster situation, the surveys must be conducted for several years because mortality may not occur immediately after operations begin.<sup>56</sup>
- 113. Even with such surveys, the possibility of Common Nighthawk mortality is too great and the variables about how best to protect it are too unknown for the applicant to meet its burden of proving that the project will have no unreasonable adverse effect to the natural environment, including to wildlife.

<sup>&</sup>lt;sup>53</sup> Tr. Day 9, AM, ASNH-Foss, pp. 18:11 to 19:3.

<sup>&</sup>lt;sup>54</sup> Tr. Day 9, AM, ASNH-Foss, pp. 18:11 to 19:3.

<sup>&</sup>lt;sup>55</sup> Tr. Day 9, AM, ASNH-Foss, pp. 57:12-16.

<sup>&</sup>lt;sup>56</sup> Tr. Day 9, AM, ASNH-Foss, pp. 18:11 to 19:3.

### c. Risks To Migrating Raptors Are Higher Than The Applicant Presented.

- 114. Migrating raptors and golden eagles are likely to use the ridges along Willard Mountain and Tuttle Hill for orographic life because of the ridges' orientation, and if the proposed wind facility were operating there, they would be at risk.<sup>57</sup>
- 115. Because golden eagles migrate later in the season, they rely more on orographic lift, lift from wind hitting the ridge line, than on thermal lift.<sup>58</sup>
- 116. Consequently, they migrate at lower altitudes, altitudes within the proposed rotor-swept zone of the project.<sup>59</sup>
- 117. On examination, the applicant noted that the American Bird Conservancy has designated the area as within the raptor migration corridor. <sup>60</sup>
- 118. The model used by the U.S. Fish & Wildlife Service estimated the risk to Golden Eagle as low, but the risk is more likely to be moderate.<sup>61</sup>
- 119. Parties agree that the model is new to the Service and that risk characterization is subject to expert interpretation.<sup>62</sup>
- 120. The Service may have used nothing but the model to categorize risk, but a model should be only one of several lines of evidence in determining a risk rating.<sup>63</sup>
- 121. The applicant testified that further study is needed on golden eagles in the eastern U.S. and that they are chronically under-surveyed.<sup>64</sup>

<sup>&</sup>lt;sup>57</sup> Tr. Day 9, AM, ASNH-Foss, p. 182:1-24; Tr. Day 6, PM, Evans, p. 140:12-15.

<sup>&</sup>lt;sup>58</sup> Tr. Day 3, PM, Valleau, pp. 176:14 to 177:17; Tr. Day 9, AM, ASNH-Foss, p. 183:1 to 185:6.

<sup>&</sup>lt;sup>59</sup> Tr. Day 9, AM, ASNH-Foss, p. 59:4-13.

<sup>&</sup>lt;sup>60</sup> Tr. Day 3, Valleau, pp. 160:23 to 161:1.

<sup>&</sup>lt;sup>61</sup> Tr. Day 9, AM, ASNH-Foss, p. 17:13-23; 197:8 to 198:2.

<sup>&</sup>lt;sup>62</sup> Tr. Day 3, PM, Valleau, pp. 201:17 to 202:4; Tr. Day 9, AM, ASNH-Foss, p. 17:13-23.

<sup>&</sup>lt;sup>63</sup> Tr. Day 9, AM, ASNH-Foss, p. 17:13-23.

<sup>&</sup>lt;sup>64</sup> Tr. Day 3, PM, Valleau, p. 203:11-18.

- 122. Bald eagles also use the Sanctuary:, during the breeding season, as part of their migratory path, and during other times of the year.<sup>65</sup>
- 123. Risk to bald eagles and other migrating raptors is highest during the migration period.<sup>66</sup>
- 124. The application completely fails to address these important considerations, and therefore does not meet the burden of proving no unreasonable adverse effect.
  - d. The Applicant Refuses to Comply with Agency Recommendations, while also Claiming that Agencies are the Experts.
- 125. The applicant claims that U.S. Fish & Wildlife Service and the N.H. Fish & Game Department are the environmental experts, not Audubon or others.<sup>67</sup>
- 126. Yet, the applicant would not during the hearing and still has not committed to following all of the requests and advice of the agencies.<sup>68</sup>
  - e. The Facility Would Unreasonably and Adversely Affect the Glacial Boulder Fields Along the Proposed Road.
- 127. Glacial boulders and boulder fields are rare and valuable features of the landscape and provide unique wildlife habitat.<sup>69</sup>
- 128. The proposed access road would pass at many locations through a significant area of such boulders.
- 129. When asked, the applicant would not quantify the number of boulders that would be destroyed for the road and turbine pads, except to say that some would be destroyed, and the

<sup>65</sup> Tr. Day 9, AM, ASNH-Brown, p. 81:2-9.

<sup>66</sup> Tr. Day 3, PM, Valleau, p. 191:22 to 192:8; Tr. Day 4, AM, Valleau, p. 113:22-24.

<sup>&</sup>lt;sup>67</sup> Tr. Day 3, PM, Valleau, pp. 205:13 to 206:11.

<sup>&</sup>lt;sup>68</sup> See e.g., Tr. Day 3, PM, Valleau, p. 192:9-12 ("That's still up for discussion"), p. 208:1 to 215:9.

<sup>&</sup>lt;sup>69</sup> Tr. Day 9, AM, R. Block, pp. 88-91; Tr. Day 9, AM, ASNH-Foss, pp. 20:21 to 21:3.

applicant would not describe by what method the boulders would be destroyed, except to list several possibilities.<sup>70</sup>

130. Any destruction or removal of or damage to these boulders is an unreasonable adverse effect to the natural environment.

#### f. The Applicant Mischaracterized the Status of the Little Brown Bat.

- 131. The applicant characterized the little brown bat as not listed in New Hampshire, meaning that they are not listed as endangered.
- 132. The applicant's comments suggest that the Little Brown Bat is not protected at all or of any concern.
- 133. However, the Little Brown Bat is listed as of 'special concern' under New Hampshire law, as are several other species the applicant identified to be present through surveys.<sup>71</sup>
  - 134. A significant nursery colony of Little Brown bats exists at the Sanctuary. 72
- 135. Regional populations of Little Brown bat have been declining significantly recently.<sup>73</sup>
- 136. Even the applicant testified that further study of bats is needed, especially in light of the population declines from white-nose syndrome.<sup>74</sup>
- 137. Some "mortality among resident bat species is also associated with spring and fall migration periods, and during the summer pup rearing season."<sup>75</sup>

<sup>&</sup>lt;sup>70</sup> Tr. Day 4, PM, Butler & Martin, p. 9:6 to 11:12.

<sup>&</sup>lt;sup>71</sup> Tr. Day 6, PM, Evans, pp. 78:10 to 79:13.

<sup>&</sup>lt;sup>72</sup> Tr. Day 9, AM, ASNH-Brown, p. 94:3-14; p. 176:5-14.

<sup>&</sup>lt;sup>73</sup> Tr. Day 9, AM, ASNH-Brown, p. 94:3-14.

<sup>&</sup>lt;sup>74</sup> Tr. Day 4, AM, Gravel, p. 63:1-11; p. 85:12-23.

<sup>&</sup>lt;sup>75</sup> Exhibit AWE 2, Application, Volume Two, Prefiled Direct Testimony of Dana Valleau and Adam Gravel, July 31, 2012, p. 32.

138. Consequently, the applicant has failed to meet its burden to prove that the project would not create an unreasonable adverse effect upon the Little Brown bat.

## g. The Applicant's Plan Fails to Adequately Address Detection and Management of Invasive Species.

- 139. Incisions into undisturbed forest, such as the road for the facility, create inroads for invasive species to enter and take hold, whether through vehicles coming and going; wildlife transporting seeds that take root only in disturbed conditions; or imported, sand, soil, or gravel.
- 140. Invasive species are among the top threats to forest health and are sought to be avoided wherever possible, and mitigated when avoidance is not possible.
- 141. The applicant's plan to manage against invasive species lacks critical components to avoid and mitigate for invasive species.
- 142. First, the applicant plans to do nothing to monitor or manage invasive species during the operation of the facility, a critical and lengthy period during which invasive species, or other forest pests, could become established at the site and spread to adjacent properties, such as the Sanctuary, and risk ecological and economic catastrophe.<sup>76</sup>
  - 143. The Sanctuary is currently relatively free of invasive species.
- 144. Lastly with respect to invasives, while the applicant does plan some management for invasive species during construction and decommissioning (e.g. cleaning trucks), the applicant does not plan to survey the site or surrounds for invasive species during this period, which obviates the meager management that has been proposed.<sup>77</sup>

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<sup>&</sup>lt;sup>76</sup> Tr. Day 9, AM, ASNH-Von Mertens, p. 73:1-3.

<sup>&</sup>lt;sup>77</sup> Tr. Day 4, PM, Martin, pp. 24:15 to 25:11.

#### h. The Applicant Failed to Consider the Effects of Climate Change.

- 145. The applicant is aware of the effects of climate change, including increasingly frequent extreme weather events in New Hampshire, expectations that existing stormwater infrastructure will be overwhelmed, and increasingly degraded water quality. <sup>78</sup>
- 146. The applicant also admitted that design standards do not always keep up with scientific knowledge.
- 147. Yet, despite available resources to do so, the applicant made no effort whatsoever to design the facility to accommodate conditions brought about by climate change. 79
- 148. For example, the project will introduce impervious surface into several watersheds, including the watershed for pristine Willard Pond, but the applicant did not design the project to protect Willard Pond from the increasingly frequent extreme weather events in New Hampshire it admitted are occurring.<sup>80</sup>
- Instead, the applicant relied on weather data from 1986 and design standards based on that outdated data.
- The oversight of not considering climate chance calls into question all of the 150. applicant's analysis and conclusions regarding invasive species, runoff, erosion, water quality, and anything else that involves temperature and precipitation.

 <sup>&</sup>lt;sup>78</sup> Tr. Day 4, PM, Martin, pp. 30:16 to 31:18.
 <sup>79</sup> Tr. Day 4, PM, Martin, p. 30:13-15.
 <sup>80</sup> Tr. Day 4, PM, Martin, p. 14:8-10;

- The Applicant Inappropriately Equates Satisfying Minimum and Outdated Legal Standards with Satisfying its Burden to Prove No Unreasonable Adverse Effects.
- 151. The applicant appropriately cites several different legal standards as the providing the required specifications and performance of the project.
- 152. However, if the applicant has shown that the project satisfies those standards, that does not amount to satisfying the applicant's burden of proof with respect to certification.
- 153. The applicant has admitted that the industrial wind sector is new and rapidly-evolving, and that as a result regulators struggle for standards to keep up with industry.
- 154. The applicant has also admitted that design standards do not always keep up with scientific knowledge.
- 155. Yet, throughout the application and hearing, the applicant refused to commit to anything more than the minimum requirements of current legal standards.
- 156. Satisfying the minimum legal requirements does not mean that the facility would not have an unreasonable adverse effect on aesthetics, water quality, the natural environment, and public health and safety.
- 157. Were that so, the standard enunciated in RSA 162-H:16 would simply be that the applicant must satisfy all applicable laws.

### VII. THE APPLICANT LACKS FINANCIAL, TECHNICAL, AND MANAGERIAL CAPACITY.

158. While this standard does not go to the heart of Audubon's mission and its concerns about the proposed facility, it is a critical component for any success at minimizing environmental effects should the facility be approved.

- 159. The application calls for Acciona Windpower North America to develop and manage the facility for a period of five years of a potential fifty (50) year operating life of the project.
  - 160. Acciona's representative at the hearing in this matter was Ruben Segura-Coto.
- 161. During the hearing, Mr. Segura-Coto was asked to elaborate on his pre-filed testimony that the Acciona team was "an extremely knowledgeable and experienced" one.
- 162. Because Mr. Segura-Coto could not answer questions regarding the specific training and qualifications of the team members and how many team members would be working at different times of the week and on holidays, the subcommittee made a record request to the applicant for this information.
- 163. However, despite a response, information to answer the questions was not included.
- 164. Thus, not only do these answers remain unanswered, but more importantly, the applicant's unresponsiveness to the subcommittee signals serious inadequacy in its technical and managerial capacity.
  - 165. Furthermore, Acciona is proposed for only the first five years.
- 166. The application is void of any information about who or what entity might operate or manage the facility after that.
- 167. Nor does the application provide any mechanism for the subcommittee to consider the technical and managerial capability of any successor to Acciona.

#### VIII. OTHER CONSIDERATIONS INDICATE DENIAL

168. Several other aspects of the application distinguish this application from prior ones and demonstrate that it should be denied.

- 169. Because these considerations are either not central to Audubon's mission or are anticipated to be addressed by other parties, Audubon does not address them except to list them here.
- 170. These deficits include that: the applicant has failed to show adequate financial capability; the application is inconsistent with the orderly development of the region; the fact that the application is of such concern to so many parties, including many outside of Antrim; and no apparent considerations of alternatives, as required.
- 171. Also, while Audubon presents the application's inadequacies primarily from the perspective of effects upon the environment, almost all of Audubon's arguments carry equal force from the perspective of public health and safety.

#### IX. CONDITIONS REQUIRED

- 172. To be clear, Audubon strongly opposes approval of the application because of its unreasonable adverse effects as stated previously, and urges the subcommittee to deny certification.
  - 173. This project falls far short of prior applications that have received certification.
- 174. However, Audubon recognizes that the subcommittee may disagree and find that the application is approvable with conditions designed to address the issues of concern.
- 175. In that event, and in the alternative to its request for the subcommittee to deny the application, Audubon requests the following conditions.
- 176. Conditions precedent, meaning certification would not become effective until the conditions were satisfied:

- a. All agency recommendations, including the U.S. Fish & Wildlife Service and the N.H. Fish & Game Department, must be followed, to the extent that the recommendations may be completed prior to construction and operation;
- b. Conservation easements must be conveyed for all properties upon which the facility will be located and must contain the following terms must be included:
  - i. Forever wild protection that would prohibit any non-wind facility development and commercial logging on the ridge (and thereby exclude any ridge line development subsequent to decommissioning of the facility), where the extent of the ridge is to be defined by consensus of the N.H. Fish and Game Department and N.H. Natural Heritage Bureau biologists based on field surveys of the site;
  - ii. Prior to the practice of any forestry or agriculture or the construction of any structure ancillary to the practice of forestry or agriculture, management plans must be prepared by licensed professionals and approved by the conservation easement holder or the Harris Center for Conservation;
  - c. Identify conditions under which golden eagle migration is likely<sup>81</sup>; and
- d. All mitigation recommended by the Counsel for the Public's expert witness, Jean Vissering, to the extent that the recommendations may be completed prior to construction and operation.
- 177. Conditions subsequent, meaning the condition may be satisfied after the certification becomes effective, and if over the course of the project a condition subsequent came to no longer be satisfied, the certification would no longer be effective:

<sup>&</sup>lt;sup>81</sup> Tr. Day 9, AM, ASNH-Foss, pp. 188:4-17; 190:21 to 191:3.

- a. Maximum sound threshold for the Sanctuary and Willard Pond that would maintain the status quo as presented by the Counsel for the Public's expert witness, G. Tocci, and that under no circumstances would cause noise greater than thirty-five (35) decibels;
- b. Re-route the roads to completely avoid all effect upon glacial boulders and glacial boulder fields;
- c. All remaining agency recommendations, including the U.S. Fish & Wildlife Service and the N.H. Fish & Game Department, must be followed;
  - d. No tree-cutting after March 1 of any given year<sup>82</sup>;
  - e. At least three (3) years of post-construction wildlife mortality studies<sup>83</sup>;
- f. Annual monitoring for invasive plants and operational plan for removal if found from beginning of construction through the end of decommissioning;
- g. A radio-telemetry study of bald eagle fledglings from the two nearby nests for at least three (3) years;
- h. Annual monitoring for Common Nighthawk until after the facility has been decommissioned<sup>84</sup>;
- i. If a pair of nighthawks was to be discovered in the immediate vicinity of a turbine pad, notify the N.H. Fish & Game Department and feather or turn off the turbine from dusk through dawn until the young are dispersed<sup>85</sup>;
- j. Curtail operation of the facility during those identified times when golden eagle migration is likely  $^{86}$ ; and

<sup>&</sup>lt;sup>82</sup> Tr. Day 9, AM, ASNH-Foss, pp 189:1 to 190:18.

<sup>83</sup> Tr. Day 6, PM, Evans, pp. 76:17 to 77:17, 78:10 to 79:13, 100:3-18, 108:3-20, 122:8 to 123:13.

<sup>84</sup> Tr. Day 9, AM, ASNH-Foss, pp. 58:2 to 58:5.

<sup>85</sup> Tr. Day 9, AM, ASNH-Foss, pp. 186:9-21.

k. All remaining mitigation recommended by the Counsel for the Public's expert witness, Jean Vissering.

Respectfully Submitted BCM Environmental & Land Law, PLLC

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### **CERTIFICATE OF SERVICE**

I hereby certify that on this 14<sup>th</sup> day of January 2013, a copy of the foregoing has been hand-delivered to those on the Service List of this Docket and sent via e-mail or first class mail to those named in the Service List of this Docket.

Amy Manzelli, Esq.

Amy Mangelli

Dated: January 14, 2013

<sup>&</sup>lt;sup>86</sup> Tr. Day 9, AM, ASNH-Foss, pp. 188:4-17; 190:21 to 191:3.