

1 The State of New Hampshire

2 Site Evaluation Committee

3 Docket # 2015-02

4 Re: Antrim Wind Energy, LLC

5 Pre-Filed Testimony of Geoffrey T. Jones, chair

6 Stoddard Conservation Commission

7  
8 **Q: State Name & Address:**

9 **A:** Geoffrey T. Jones, 1 Old Antrim Rd., Stoddard, NH 03464

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11 **Q: What is your educational background?**

12 **A:** I hold a BA in biology from Keene State College (1977); an Associate degree in Forest Technology  
13 from UNH/TSAS (1979); I served 4 years in the US Coast Guard, serving 1 tour of duty in Vietnam  
14 and attended a 5 month Marine Science Technician School (trained to collect oceanographic and  
15 meteorological data at sea). Resume is attached.

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17 **Q: Are you presently employed?**

18 **A:** Yes, I am a licensed professional forester, self-employed as the sole proprietor of Loveland  
19 Forestry, a forest consulting and residential tree removal company (since 2010).

20  
21 **Q: Where did you work prior to owning your own business?**

22 **A:** I worked at the Society for the Protection of NH Forests from 1979 to 2009, as director of land  
23 management, responsible for supervising a dept. of 4 FTE personnel, coordinating, and/or

1 performing work associated with owning and managing 45,000 + acres of high profile conservation  
2 land on 160+ separate woodlots.

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4 **Q: Site Qualifications to speak to this issue:**

5 A: I'm a native of NH and 4th generation resident of a family homestead in Stoddard. As  
6 chairman of the Stoddard Conservation Commission, I have my pulse on the community  
7 temperament towards this project. As a professional forester with 35+ years of experience, I know  
8 from 1st hand experience what a project like this will do to forest and conservation values of an  
9 area. I have served on state-wide committees that developed sustainable forestry guidelines put  
10 forth in the "Good Forestry in the Granite State" (both 1st and 2nd editions); I have extensive  
11 experience evaluating timber and non-timber values of NH forestland throughout the state,  
12 including scenic values. As the author of an award winning publication with global distribution  
13 "Logging Aesthetics Guide", I am keenly aware of aesthetic impacts to a forested landscape. (See  
14 attached resume for further credentials).

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16 **Q: Purpose of this testimony?**

17 A: To demonstrate (through testimony and visual aids) how this project will threaten the  
18 conservation values of adjacent conservation lands; fragment high ranking wildlife habitat as  
19 identified in the NH Fish and Game Wildlife Action Plan; and overwhelm the aesthetic values of the  
20 region.

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22 **Q: Jack Kenworthy mentioned at the February 22, 2016 SEC public hearing in Antrim, that**  
23 **he had been "at it for 7 years". How long have you been "at it"?**

24 A: I have been addressing environmental issues since I was a teenager in high school, writing a  
25 term paper on a career in forestry and a second one on issues facing our environment (vintage

1 1965). The conservation community has been protecting land in this area since 1978, beginning  
2 with the protection of the 3, 449 acre Charles Peirce Reservation in northeastern Stoddard.

3 **Q: Can you describe what makes Stoddard unique?**

4 A: At 33,949 acres, the town of Stoddard is the second largest town, by acreage, in Cheshire  
5 county. Over 65% of the town or 21,896 acres is permanently protected from development through  
6 the use of conservation easements or fee ownership of land by land trusts. Of the 65% protected  
7 lands, 6,518 acres (1/3 of all protected lands or 20% of the town) are in a "Forever Wild"  
8 designation. It is highly unusual for private landowners to place such a designation on their lands.  
9 In part, it reflects the unique biological richness of the area.....that development proposals of this  
10 nature, should take into consideration.

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14 **Q: Can you be more specific about the conservation values of Stoddard?**

15 A: These conservation lands collectively possess significant natural, ecological, and open space  
16 attributes which reflect the distinctive character of the Town of Stoddard and are of great  
17 importance to its residents. The Stoddard conservation lands (and abutting undeveloped lands) are  
18 some of the most significant unfragmented habitat areas in southern New Hampshire, where  
19 species diversity is higher among both plants and animals than in surrounding counties, and is  
20 exemplary in central New England (Van de Poll, March 2000 Management Plan of Stoddard  
21 Properties, prepared for Sweet Water Trust and the Society for the Protection of NH Forests and on  
22 file in their respective offices).

23  
24 **Q: On two separate occasions (July 15, 2012 and April 16, 2016) , traveling with others, you**  
25 **traversed the Tuttle Hill Ridge. Did you observe any wildlife sign, and if so, what was its**  
26 **significance?**

1 A: On the July 15, 2012 traverse of Tuttle Hill Ridge by a number of natural resource  
2 professionals (including myself, wildlife biologist Sue Morse, science teacher/tracker Scott  
3 Semmens), abundant sign (scat, scrapings, browse, bite marks) was observed along the Tuttle Hill  
4 traverse, indicating that this area is indeed core habitat for black bear, bobcats, coyotes, moose,  
5 deer, and other big game species. Two years later, following the same route, members of the  
6 Stoddard conservation commission observed numerous fresh sign (claw marks on beech, scat,  
7 browse, tracks), of bear, moose, deer, turkey, grouse, and coyote.

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9 **Q: On This Same Traverse, Did You Notice Any Timber Harvesting? And If So, Was There**  
10 **Anything Remarkable About The Area Cut?**

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12 A: Yes, a recent harvest had been conducted within the last 5+/- years. The silvicultural  
13 prescription that was applied appeared to be a prelude to the development of the industrial wind  
14 site, as the main areas that were cut were along the access road and large, circular clear cuts at the  
15 proposed tower sites Adjacent areas, for the most part, we left uncut.

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17 **Q: How does conservation land in Stoddard relate to other towns?**

18 A: Stoddard and the surrounding towns have large unfragmented forest blocks. Tuttle Hill is  
19 part of a 12,994 acre undeveloped forest block, which in turn borders 4 other large undeveloped  
20 areas that collectively represent over 76,600 acres of forestland. A good percentage of this large  
21 undeveloped land is protected. The conservation lands of Stoddard physically abut a collection of  
22 protected lands in several surrounding towns including: Washington, Windsor, Antrim, Hancock,  
23 Sullivan, Nelson, Harrisville, Gilsum, and Marlow, that represent over 40,000 acres of permanently  
24 protected conservation lands, affectionately known as the "Super Sanctuary". The protected lands  
25 in one town enhance the values of conservation lands they abut in adjacent towns. The biotic  
26 communities boundaries are not political.

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**Q: What are your specific concerns about the proposed Tuttle Hill Industrial wind installation?**

A: The proposed Tuttle Hill wind tower facility lies in a 12,994 acres unfragmented forest block (roadless area), of which 3,582 acres of protected lands lies (nearly 1/3 of the unfragmented forest block). This undeveloped area of northwestern Antrim contains important ecological and habitat values that contribute to and are interconnected with the adjacent conservation lands. The conservation lands of interest and concern to the town of Stoddard are the recently protected lands of Robb Reservoir (1,700+) that abut the northwestern bound of Antrim, and the 3,400 acre Peirce Reservation that lies a mere 2 miles northwest of Tuttle Mountain.

**Q: Can you be more specific on how this project would affect habitat values?**

A: A four mile+/- long (by 50-100 foot wide) access road to the wind tower site and 9 energy generating structures will have a profound impact on the interconnected conservation values of the northwest lands of Antrim AND the adjacent conservation lands in Stoddard (and adjacent towns), fragmenting important high elevation habitat (for certain species of birds) and splintering wildlife corridors (especially for bobcats), degrading their natural function.

Forest fragmentation usually begins incrementally, with cleared patches here and there ~ think of Swiss cheese ~ within in an otherwise unbroken expanse of tree cover. Over time, as these non-forest patches multiply and expand, the forest block is reduced to scattered, disconnected islands. As the large forest blocks are fragmented, wildlife habitat (especially for large mammals that roam) is degraded, biodiversity is lost, the presence of invasive plants, pests, predator generalists, and pathogens increases AND water quality decreases.

1 As forest patches become broken up and smaller in size, the movement of plants and animals is  
2 inhibited and it restricts breeding and gene flow, causing long-term population decline. As the  
3 forest's health and function erodes, so too does its resiliency and ability to adapt and respond to  
4 change, like global warming.

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6 The edge effect that fragmentation creates, damages interior forests by drastically changing  
7 temperature, moisture, light, and wind, which impacts the survivability of trees, flowers, ferns,  
8 lichens and the animals that depend upon them, in particular certain species of salamanders,  
9 goshawks, bats, and flying squirrels. The negative impacts of each residential dwelling acre located  
10 within an unbroken forest radiates outward, affecting up to 30 additional acres with increased noise  
11 disturbance, predation, and competition from edge dwellers, like the cow bird.<sup>1</sup>

12  
13 The larger unfragmented blocks are significant, because they provide important habitat and  
14 traveling corridors connecting working woodlands with farmlands that are used by a wide variety of  
15 song birds and large and small mammals that require deep interior unbroken forest canopies.

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18 **Q: Why is fragmentation of forest blocks a concern on the local level?**

19 A: According to internationally renowned biologist and Pulitzer Prize author, Dr. E. O. Wilson  
20 (Harvard University professor for over 5 decades and author of more than twenty books), the  
21 greatest threat to life on planet earth comes from habitat fragmentation and invasive species  
22 invasions through human development. The development of Tuttle Hill and surrounding lands will  
23 result in both habitat loss and make the area ripe for invasion by a host of invasive plants and  
24 pests.

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<sup>1</sup> Snyder, Michael, "What is Forest Fragmentation and Why Is It A Problem", Northern Woodlands, Autumn 2014 P.11

1 The Rte. 9 corridor, which historically has been a scenic gateway to southwestern NH, is  
2 experiencing a new wave of development in the form of cell towers, communication towers, wind  
3 farms, and "trophy" homes.

4  
5 The SCC is very concerned about the cumulative impact of proposed and recent development  
6 projects along the Rte. 9 corridor, which historically has been a scenic rural gateway for guests.  
7 Scientists like Dr. Wilson have identified the threats to life as we know it and they have told us what  
8 we need to do to protect them. **The only way we are going to address their concerns, is not by**  
9 **sweeping legislation, but by making the right land-use decisions one project at a time!**

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11 **Q: How will the wind towers undermine the conservation values/experience of lands in**  
12 **Stoddard and surrounding towns?**

13 **A:** The importance of beauty in NH used to be underscored by its presence on the vehicle license  
14 plates with the words "Scenic" on them. Recent studies conducted by the UNH Cooperative  
15 Extension clearly indicates that over 80% of NH landowners own land for its beauty and scenery,  
16 with privacy and biodiversity following closely behind (over 70% and 60% respectively). Timber  
17 production placed last at less than 10%. Clearly looks count. Pitcher Mountain, located in the  
18 heart of Stoddard, offers the best 360° view for the effort, in southern NH. It is surrounded entirely  
19 by protected lands, lying in the center of one of the largest conservation easements in New England.  
20 Much of the view is rural, scenic, and uncluttered.....but in recent years this scenic view shed has  
21 been fragmented by dozens of cell towers, radio transmitters, the Lempster wind farm, and several  
22 ski areas that offer night skiing. The dark skies of Stoddard have been compromised at night; the  
23 Tuttle Hill Wind Farm will dominate the view from the south. The views of Bacon Ledge, another  
24 popular local destination, are within two miles of Tuttle Hill. This project, as proposed with 10-500  
25 foot towers, will overwhelm visitors seeking natural skylines and the serenity they bring. In this  
26 region and around the state, as rural landscapes are fragmented, NH will experience a "scenic and

1 aesthetic" famine if we are not more considerate of our hilly heritage and more careful in how we  
2 pursue our land use activities.

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4 The ridge of towers will have a dominating impact on the view shed bordering Willard Pond, in  
5 Hancock. All but one tower will be visible from its shores or boaters on its waters.

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7 **Q: Isn't the Stoddard Conservation really taking a NIMBY position on this issue?**

8  
9 A: No, the Stoddard CC tries to guide growth rather than prohibit it, making sure that when it  
10 takes place it does so in appropriate places. The SCC has worked with the Stoddard ZBA and  
11 Planning Boards to see that proposed development projects complement (not undermine) the  
12 conservation values of protected lands in town through good planning, setbacks, and by finding  
13 alternative sites if proposed projects threatened the conservation values of protected lands. We  
14 believe that Tuttle Hill is a marginal site for wind towers (hence the 500-ft height on the proposed  
15 towers) and the benefits derived from the proposed wind site do not offset the damage and  
16 degradation to the unfragmented forest that it would bisect or the abutting conservation lands that  
17 would be degraded.

18  
19 **Q: Why does Stoddard have one of the lowest property tax rates in the state?**

20 A: The town of Stoddard has one of the lowest property tax rates in the state. The reason? In  
21 part, a high percentage of property owners are out-of-state folks that have cottages on the  
22 numerous lakes that are surrounded by protected lands. They value the scenic beauty of hills  
23 unmarred by buildings, towers, and other structures. The Stoddard still has some of the darkest  
24 night skies around.

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26 **Q: Do You Have Any Concluding Thoughts?**



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A: No matter how environmentally friendly the Antrim Wind Energy Project may be, Tuttle Hill is not the appropriate site for all of the aforementioned reasons.

Dated this 23 day of May, 2016



Geoffrey T. Jones, chair  
Stoddard Conservation Commission  
PO Box 336  
Stoddard, NH 03464

**Apendix-Exhibit List**

**Exhibit A: Jones Resume**

**Exhibit B: Map of Super Sanctuary Conservation Lands**

**Exhibit C: Map of Bobcat Study Home Range Relative to AWE and Protected Lands**

**Exhibit D: Letter of support for Stoddard Conservation Commission from Stoddard Selectmen (2012)**

**Exhibit E: Article on "What is Forest Fragmentation and Why is it a Problem" by Michael Snyder**