

**STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE**

**APPLICATION OF GROTON WIND, LLC
NO. 2010-01**

**RESPONSE OF MARK WATSON TO FILING OF
GROTON WIND LLC'S ENVIRONMENTAL HEALTH AND SAFETY PLAN**

Mark Watson hereby responds to the October 11, 2013 filing of the Groton Wind LLC Environmental Health and Safety Plan (the 'Plan'). I generally agree with the responses provided by Counsel to the Public and the Town of Rumney. In addition, I respectfully submit these comments for the Committee's consideration.

1. Road Profiles and Public Safety

The Alteration of Terrain permit dated October 8, 2010 as approved by NH DES and subsumed in the Certificate of Site And Facility references plans dated July 9, 2010 which show all roads with a grade no steeper than 12%. This is consistent with the engineering criteria for the roads as summarized in the original Groton Wind LLC application¹ (page 46). In addition, the Certificate of Site And Facility required that the Agreement between Groton Wind and the Town of Groton be part of the Order and that conditions contained within the Groton Town agreement "shall" be conditions of the Certificate. Section 8.2 of the Groton Town agreement requires that project roads be constructed and maintained to allow for year-round access to each Wind Turbine "at a level that permits passage and turnaround of emergency response vehicles."

¹The actual text of in the application states "straight roads must have a maximum grade of 12 percent."

Despite these conditions, the revised plans dated October 28, 2011 show road profiles with steeper grades (>12%) than those defined in the plans certificated by the Committee. It wasn't until after the project roads were constructed, that Groton Wind LLC informed the Town of Rumney that winter access of the project site was not recommended due to "continuous roadway grades that exceed 12-percent and have up to 15-percent grades." (*Appendix A: VHB Letter 3/22/2013*).

There is no evidence in the record that Groton Wind LLC notified the Committee, Counsel to the Public, the parties to the proceeding, or the Town of Rumney of the changes to the road profiles prior to construction. In fact, the VHB letter to NH DES dated November 10, 2011 which explained the plan revisions including relocation of the O&M building and two turbines, omitted any reference to changes in the road profiles. (*Buttolph/Lewis/Spring Motion to reopen, Attachment 3, 1/14/13*) Groton Wind LLC has resisted requests by the intervenor group Buttolph/Lewis/Spring and Counsel for the Public to provide copies of the revised plans. (*TR 2/19/13 p99 ln 15 and TR 2/19/13 p131 ln 8*)

During the February 9, 2013 hearing, Attorney Geiger withheld any mention that the road profiles were reengineered by Groton Wind LLC and VHB, and instead made the incredible assertion that "...at the time the Application was submitted, it's probably fair to assume that Groton Wind thought it was going to be plowing and sanding roads for this project. As it turns out, at the present time, that is an unsafe manner to maintain these roads." (*TR 2/19/13 p44 ln 7*)

Are we expected to believe that it was only after the roads were constructed that Groton Wind LLC and VHB made the surprising discovery that access under winter conditions was unsafe? Had the final road profiles been known in the original plans reviewed by the Committee, it is reasonable to assume that the steep roads would have caught the attention of the parties including the Towns. As Ms. Lewis stated "the intervenors would have had an opportunity to question it and that type of thing. But it shouldn't be a

situation where now they [Groton Wind] are unilaterally allowed to change what's already in the certificate." (*TR 2/19/13 p39 ln 12*) Groton Wind LLC attributes the road safety concerns directly to the steeper roads².

Paragraph 3.6.4 of the Environmental Health And Safety Plan insists that Iberdrola transport emergency services personnel in all-terrain vehicles when the roads are impassible. If this provision is necessary due to Groton Wind LLC's deliberate disregard of the conditions under which the project was approved, the public deserves a full adjudicative proceeding to understand how we reached this point and what steps must be taken in order to bring the project into compliance with the Certificate.

2. Ice Shed

The Committee's May 6, 2011 decision, includes the following paragraph regarding Ice Shed:

"The Applicant asserts that ice throws are unlikely to occur because ice generally melts gradually, allowing the turbine to spin slowly and causing the ice to slip off the blades and to fall on the ground. Tr. 11/02/2010, Morning Session, at 97-98. The Subcommittee received no credible evidence demonstrating that ice throws will cause an unreasonable adverse effect on public safety. The Subcommittee finds that the Project does not pose a danger to the human health and safety due to ice throws and finds it unnecessary to impose any conditions in this regard."

This casual treatment of the issue is in direct contrast to Paragraph 3.10 of the Plan which states:

"Shedding ice may be thrown a significant distance as a result of the rotor spinning or wind blowing the ice fragments. Icing of blades is a significant issue that during "shedding" poses a risk of injury or property damage. Everyone is reminded that at any time when "icing" may potentially occur there is no replacement for using constant vigilance in assessing your surroundings."

² As detailed in my March 18, 2013 letter to the Committee, I attended the December 4, 2012 Groton Selectmen's meeting where Ed Cherian, Iberdrola Representative, stated Groton Wind had purchased a Tucker (snow cat) to access the wind turbine facility because it was cost prohibitive to plow and sand the access roads. (<http://www.nhsec.nh.gov/2010-01/documents/130318watson.pdf>)

Groton Wind relies on an internal safety setback distance for personnel of 524-feet as referenced in 3.10.2 but there is no apparent action detailed in the plan that protects the public. The photographs in Appendix B, taken in February 2013, clearly show footsteps leading right to the base of the turbine. More detail is required to ensure the public is notified of the safety risks.

As concluded in Counsel to the Public's filing, with these questions still unanswered, the Plan is not sufficient. In addition, where Groton Wind LLC has not sought any relief with respect to the Plan or the emergency response issues, the violations of the terms of its certificate that were disclosed last winter and expanded herein, remain unresolved.

Dated this day of November 18, 2013

By:

/s/ Mark Watson

Mark Watson

cc: Parties to Docket 2010-01

APPENDIX A

Road Access via SnowCat

Groton Wind LLC ("Groton") made the decision to rely on a SnowCat for snow bound access to the Groton Wind Farm for safety reasons. The mountainous terrain is very rugged and can be dangerous to access during the winter months. During the Project's development stages, attempts were made to plow and sand the roads. These efforts failed when sand trucks and snow plow trucks lost traction due to the steep inclines with snow and ice. It became clear that attempting to plow these roads would introduce serious safety risk to equipment operators, and for others attempting to access the project by normal vehicular traffic.

Vanasee Hangen Brustline, Inc. ("VHB"), the Engineer of Record for the project with the State of New Hampshire, concurs with this decision, as documented in their attached letter. VHB noted that, due to steep grades of 12-15%, conditions would be unsafe for plow operators. Access road segments are built along the hillside with vertical drops of more than several hundred feet.¹

Groton purchased a SnowCat and an all-terrain vehicle for the project, and we are renting two additional Piston Bulleys. These vehicles will provide year-round safe access to the project, and will ensure the safe passage of all personnel to and from the turbines.

We also note that using SnowCats to provide safe winter access to is being used in other NH mountainous regions. For example, at the Mount Washington Observatory in North Conway, NH, SnowCoach is the only means of access during the winter months. This is also standard practice at many locations in the White Mountain Region, including Wildcat Mountain Resort, Cannon, Attitash Mountain Resort, Loon and Waterville Valley Resort. SnowCats are also routinely used at Granite Reliable, Brookfield's Wind Farm located in Coos County, NH.

¹ Additionally, VHB stated that plowing would create a greater adverse environmental impact due to excessive spring runoff. It should also be noted that the permit conditions for the project do not allow for salt or chemical deicers to be used on the gravel roads.



March 22, 2013

Ref: 52036.00

Doren L. Emmett
Iberdrola Renewables, LLC
Two Radnor Corporate Center
Suite 200, 100 Matsonford Rd.
Radnor, PA 19087

Re: Winter Road Maintenance
Groton Wind Farm
Groton, New Hampshire

Dear Mr. Emmett:

Vanasse Hangen Brustlin, Inc. (VHB) has reviewed options for winter access and maintenance of roads built for the Groton Wind Farm in Groton, NH. Following are our recommendations and comments relating to winter road access and maintenance.

VHB has recommended to Iberdrola Renewables that the access roads within the Groton Wind Farm not be plowed during the winter and instead that access for winter maintenance purposes should be via snow cats (a fully tracked vehicle designed for travel on snow) or other types all-terrain vehicles that would be suitable for winter and spring conditions. Using snow cats or other type appropriately equipped all-terrain vehicles will allow for safer winter travel along the access roads to turbine locations without the need for plowing roadways. These types of vehicles have superior traction and stability in a variety of conditions including snow, ice and mud. Snow cats are used at many New England ski areas for winter mountain access and are used for winter access along the Mount Washington Auto Road.

Plowing of the access roads is not recommended for the following reasons. Plowing roads with long continuous roadway grades that exceed 12-percent and have up to 15-percent grades would be difficult, unsafe and potentially hazardous to plow operators. Each of the access road segments are built along hillsides with steep slopes and have over several hundred feet of vertical rise from the valley up to each ridge. During heavy snow and high wind conditions, snow drift accumulations along the roadway would result in complex snow removal operations. Gravel roads are more difficult to maintain in winter conditions than paved roads, and the surface of the plowed gravel roads can become slippery from compacted snow, ice and or mud surfaces. During the winter plowed roads would be difficult to drive up and potentially unsafe to descend given the unpredictable surface conditions (lack of traction) and long steep roadway grades. If a vehicle were

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to loss traction while traveling down the mountain the operator may have little opportunity to regain control of the vehicle.

Leaving the roads unplowed will minimize or reduce the risk of the above mentioned hazards. If left unplowed during the winter, the snow cover will act as insulation minimizing road damage from frost and will reduce road damage from repeated winter plowing. VHB recommends for the reasons noted above that the access roadways within the Groton Wind Farm not be plowed during the winter, except for special conditions when truck access may be needed during winter for a specific maintenance activity. Groton Hollow Road from Route 25 to the Operations and Maintenance building near the entrance of the site should be plowed during the winter for staff access.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.



Michael J. Leo, PE, LLS
Senior Project Manager

Cc: Peter Walker – VHB
Jebby Varughese – Iberdrola Renewables
Ryan Haley – Iberdrola Renewables



APPENDIX B

