



## ***Industrial Wind Action Group***

facts, analysis, exposure of wind energy's real impacts

March 15, 2009

Ms. Rene Pelletier, P.G.  
Assistant Director, Water Division  
New Hampshire Department of Environmental Services  
29 Hazen Drive  
Concord, New Hampshire 03301

### **Re: Granite Reliable Power Wind Park in Coos County (NH SEC Docket 2008-04)**

Dear Ms. Pelletier:

The Industrial Wind Action Group (“IWA”) is a national organization focused on raising awareness of the negative impacts of utility-scale wind if sited improperly. In this capacity, our organization closely monitors wind energy proposals, development, and post-construction performance and attendant impacts. IWA has been granted intervenor status before the New Hampshire Site Evaluation Committee regarding the Granite Reliable Power LLC (“GRP”) wind energy proposal, SEC Docket 2008-04.

We appreciate the opportunity to provide comments to the New Hampshire Department of Environmental Services in regard to the draft 401 Water Quality certificate submitted to the Site Evaluation Committee (“SEC”) on February 10, 2009. Per the document filed with the SEC, you state the public comment period will extend from “mid February to mid March 2009. It is our hope that these comments fall within the time period you contemplated.

#### **General Comments:**

Wind energy development must be planned, sited, designed, mitigated, and monitored in a thoughtful manner to ensure it is done right from the start. In order to ensure high-quality, legitimate, and non-controversial development decisions, such resource planning must be science-based. The NH Department of Environmental Services, in our opinion, did not meet this test in regard to its review of the wetlands impacts and terrain alteration that will result from the proposed GRP project.

The Administrative rules Env-Wt 300 govern DES’ decision to grant a wetlands permit. In the findings section of the Wetlands Bureau Conditions, Finding #11, the DES asserts “The applicant has demonstrated by plan and example that each factor listed in Env-Wt 302.04(a) Requirements for Application Evaluation, has been considered in the design of the project.” Yet, in our reading of the rules and the materials submitted to DES by GRP, we cannot find any evidence in the record that shows:

- 1) The applicant submitted proof that the potential impacts have been avoided to the maximum extent practicable (Env-Wt 302.03(a))

- 2) The alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site (Env-Wt 302.04(a)(2)). In fact, there is no evidence in the record that any alternative analysis was conducted.
- 3) The extent of impact of the project on plants, fish and wildlife. While the DES at least acknowledges several State listed threatened and endangered species in Finding #9, there is no information that attempts to quantify the impact of the project development on these species nor does DES consider the extent to which their habitat will be degraded or destroyed through direct and secondary impacts. There is no indication DES requested information pertaining to federally threatened or endangered species including migratory wildlife. (Env-Wt 302.04(a)(7))
- 4) Whether DES evaluated other wind energy facilities located at elevations above 2700 feet and considered the high risk of increased flooding, erosion, or sedimentation. DES appears to treat this extensive development as comparable to subdivision roads in areas already impacted by human activity rather than recognizing the unique issues that might arise at this project site.
- 5) Whether the department abided by Rule Env-Wt 302.04(d) in determining that any other practicable alternative would have a less adverse impact on the area and environments under the department's jurisdiction. The department's failure to request an alternatives analysis makes it impossible for the any such determination to be made.

In light of these concerns and the ongoing SEC hearings, we believe DES released its findings prematurely. There are outstanding questions pertaining to wind energy development at high elevations which should be answered before asking the public to provide meaningful input to the process. If not too late, we respectfully ask that a public hearing be scheduled to grant the public the full benefit of hearing directly from DES as to how it conducted its review of the project.

In addition to the above general comments we have specific concerns with several of the DES Findings marked D-n.

- 1) **D-1:** Finding D-1 correctly details the number of miles of roads that will be constructed as part of the project site, however we object to the characterization that GRP will be 'upgrading' approximately 20 miles of existing gravel logging roads. During testimony before the SEC on March 11, 2009, Horizons Engineering confirmed that the roads would span in width from over 30-feet to 150-feet and in some cases significant ledge cuts would be required on the steeper slopes. The road bases for the existing roads would be substantially rebuilt to withstand the impacts of thousands of tons of equipment. Appendix A and Appendix B of this letter include photographs of roads as built at the Kibby Wind Energy facility in Maine. On March 11, Horizons Engineering confirmed under oath before the SEC that the roads GRP will be constructing will be akin to the roads depicted in these pictures.

- 2) **D-9:** Please state the basis for the assertion made in finding D-9 that “other pollutants typically associated with vehicular traffic are not a concern as the project will only result in 2 to 3 vehicle trips per week”. Construction of the project site will require substantial vehicular traffic during the 1-2 year construction period. Further, it is well documented that wind energy facilities invite traffic given the substantial road system, despite signage and gates.
- 3) **D-10:** Given the location of the project site at above 2700 feet elevation it is critical that the permit findings recognize the high risk of erosion when vegetation is removed. This is due to the shallow soils, steep slopes, and high precipitation at these elevations<sup>1</sup>. The Kibby Mountain wind facility experienced a significant failure of erosion control measures resulting in a 900-foot mud slide. We’ve included in Appendix C the site inspection report prepared around the time of the failure and photographs of the mud slide. Given the unique attributes of the GRP site and the enormity of the project scale, we strongly recommend the DES require that the site be monitored more frequently than once per week and that all rain events of ½ inch or more should result in a monitor visit without exception.
- 4) **D-11:** It is important to acknowledge that turbine failures including tower collapse and fire have resulted in site contamination due to oil leaks from the turbines. Incidents of this nature have occurred throughout the United States including the March 6 tower collapse in Altona, New York involving a Noble Environmental wind turbine<sup>2</sup>. In addition, the Searsburg wind energy facility in Searsburg, Vermont experienced a collapse in September 2008 resulting in an oil spill<sup>3</sup> and the Maple Ridge wind energy facility in Lowville experienced a transformer failure that leaked oil underground contaminating a residential well<sup>4</sup>.
- 5) **D-13:** DES’ finding D-13 is particularly worrisome as it suggests DES reviewers do not understand the importance of carefully managing the edge effects of the road. We recommend consultation with NH F&G personnel and NH Audubon to better understand how best to manage re-vegetation efforts. Per testimony before the SEC, the use of grasses should be avoided to ensure grass does not spread into the forested area and suppress re-growth of the trees.
- 6) **D-14:** We encourage DES to investigate wind energy facilities in Maine, Vermont, Pennsylvania, New York, and elsewhere to understand the frequency in which de-icing chemicals are needed. While the GRP has stated salt used would be limited, we encourage DES to validate such assertions. There have been a number of turbine failures in New York, Illinois, and Pennsylvania during the winters of 2007 and 2008.

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<sup>1</sup> NH Audubon Comments to the NH SEC: [http://www.nhsec.nh.gov/2008-04/documents/090227nh\\_audubon\\_letter.pdf](http://www.nhsec.nh.gov/2008-04/documents/090227nh_audubon_letter.pdf)

<sup>2</sup> [http://www.pressrepublican.com/midday/local\\_story\\_066152541.html](http://www.pressrepublican.com/midday/local_story_066152541.html)

<sup>3</sup> <http://www.rutlandherald.com/apps/pbcs.dll/article?AID=/20081017/NEWS02/810170356>

<sup>4</sup> <http://www.windaction.org/news/13367>

Thank you for taking the time to consider our comments. Please do not hesitate to contact me by e-mail at [llinowes@windaction.org](mailto:llinowes@windaction.org) or phone (603-838-6588) if we can be of further assistance.

Respectfully,

A handwritten signature in black ink, appearing to be 'Lisa Linowes', written in a cursive style.

Lisa Linowes  
Executive director

cc: Michael J. Iacopino, Counsel to the SEC  
Kathlyn Keene  
Kenneth Kimball, AMC  
Vern Lang, USFWS  
Evan Mulholland NH AGO  
Jane Murray, NH DES  
David Publicover, AMC  
Peter Roth, Counsel for the Public  
Steve Weber, NH FG





Stephen Roberge is the inspector;  
Marcia Spencer-Famous for Maine's Land Use Regulatory Commission (LURC);  
David Rocque is the State Soil Scientist;

From: Stephen Roberge [sjroberge@roadrunner.com]  
Sent: Monday, October 27, 2008 10:55 PM  
To: Spencer-Famous, Marcia; Rocque, David  
Subject: B-series video of skidder access road mud flows

Hi Marcia and Dave,

Copy and paste the link below to see a video of just one of many of the mud flows coming from the skidder access road leading to B17 tower. This issue was pointed out in the last report and not acted upon. I believe this violation deserves some sort of fine/penalty. If this doesn't qualify, I'm not sure what would. This is the worst non-compliance for erosion control to date on this project. All eyes will be looking towards the LURC response to this issue. Please call me (242-6248) if you want additional information. Also many photos attached with the normal site visit report.

Dave your photos of the soil/seep are attached in the normal report photos also. You can download them from the site and blow them up as appropriate.

Steve

# Kibby Wind Power Project

## Erosion Control Item summary

10-27-08

<u>Erosion Control item</u>	<u>Date</u>	<u>Location</u>	<u>Brief Description</u>
No erosion control devices	10-22-08	AR5 Mile 2.0 Wahl Rd Skidder Access trail	Logging operation skidding material from "B-17" area approximately 4000' to landing area at end of AR5 road. No erosion controls have been installed along landing yard and skidder access road. <b>See Section 10.25,M(2)(b) page 84 of permit.</b> 3PI submitted written report (17) to "strongly recommend the skidder access road not be used until adequate erosion controls have been installed." It was also recommended the road not be used until freeze-in occurs.
Overwhelmed and inadequate erosion controls installed	10-27-08	AR5 Mile 2.0 Wahl Rd Skidder Access trail	Logging operation skidding material from "B-17" area to landing area using 5 skidders. Significant erosion and sedimentation was in progress. Non-compliance items to consider are as follows according to approved Erosion Control Plan (ECP) and Best Management Practices (BMP):

1. Skidding operation along the skidder road should not have begun until all erosion controls are in place and maintained. **Section 10.25,M(2)(b).** A clear definition of who the responsible erosion control contractor was not established for this road prior to use.
2. The contractor did not adequately anticipate the amount of water (snow melt, significant 1.5" rain, larger upslope watershed area) when designing/sizing the erosion control implementation devices according to BMP's. **Section 10.25,M(2)(a)**
3. No downslope erosion barrier along the landing area. **(See Section 7 TRC E&S Plan)**
4. No rock check dams in ditches adjacent to landing area and outlet culvert to slow flows and collect sediment from passing culvert. **(See Figure 14 Appendix C TRC E&S Plan)**

5. No diversion of upslope "clean" water out of project disturbed areas. (See Section 6 TRC E&S Plan)
6. Skidder access road to B16/17/18 did not have adequate downslope erosion barrier (erosion mix or silt fence) along appropriate lengths of skidder access road. (See Section 7 TRC E&S Plan)
7. Skidder access road did not have adequate number (based on the steepness of slope and watershed) and proper construction/location of water bars along entire length of road. (See Section 6 TRC E&S Plan)
8. Water bars did not have adequate construction of water bar outlets as sediment filled (or overwhelmed) silt fence and bypassed fence thereafter. Silt fence, as an outlet protection device, is not a BMP for large volumes of water. (See Section 6 TRC E&S Plan)
9. Water bars did not drain to stabilized areas...in some cases, bars drained to old logging trails promoting erosion and sedimentation along those trails also. (See Section 6 TRC E&S Plan)
10. Severe wheel ruts within the skidder access road allowed water to bypass the water bar construction putting greater volumes of water into the downslope bars. (See Section 6 TRC E&S Plan)
11. Sedimentation resulting from overwhelmed erosion control devices allowed sediment (large particle sediment such as sands and gravel) to travel significant distances; in some cases as much as 1000' downslope from the landing yard. Chocolate colored water was leaving the site and (although not photo documented) possibly could have entered Kibby Stream, downslope approximately 3000' from the landing yard.

Other similar occurrences (with lesser impact than above):

<u>Erosion Control item</u>	<u>Date</u>	<u>Location</u>	<u>Brief Description</u>
No erosion control devices	08-06-08	Crane access road near A14 tower	Logging operation skidding material from A14 area ROW without any erosion controls during beginning of project. Significant rains and constant skidder operations created slop conditions. Voluntary stop work order issued by Plum Creek. Sargent erosion control crew installed appropriate water bars and silt fence. No sediment left the site. See 3PI report 3. See Section 10.25,M(2)(b).
Additional erosion control devices needed	09-17-08	9.5 mile Goldbrook Rd skidder trail to Met Tower A11-1	Steep skidder trail for access to ROW has limited erosion water bars/outlets. Additional devices advised. No sediment left the site. See 3PI report 9. (See Section 6 TRC E&S Plan)
Additional erosion control devices needed	10-02-08	0.5 mile Spencer Bale Rd Skidder trail to A10	Steep skidder trails for access to ROW were shut down due to lack of adequate erosion devices, significant wheel rutting, water bars, and rain. Sediment running down trail wheel ruts as mud flows. Voluntary stop work order issued by Plum Creek. See 3PI report 12. See Section 10.25,M(2)(b).
Maintenance of water bars	10-02-08	4.5 mile Spencer Bale Rd Skidder trail to A2	Water bar outlets are full of silt and have discharged sediment offsite into wooded area. See 3PI report 12. (See Section 6 TRC E&S Plan)

