

1 THE STATE OF NEW HAMPSHIRE  
2 BEFORE THE  
3 NEW HAMPSHIRE  
4 SITE EVALUATION COMMITTEE

5  
6 DOCKET NO. 2008-  
7

8 APPLICATION OF GRANITE RELIABLE POWER, LLC  
9 FOR CERTIFICATE OF SITE AND FACILITY  
10 FOR GRANITE RELIABLE POWER WINDPARK  
11 IN COOS COUNTY  
12

13  
14 TESTIMONY OF JEAN VISSERING  
15 ON BEHALF OF  
16 GRANITE RELIABLE POWER, LLC

17 July 2008  
18

19  
20 Qualifications  
21

22 Q. Please state your name and business address.

23 A. My name is Jean Vissering. My business address is 3700 North Street,  
24 Montpelier, Vermont, 05602

25 Q. Who is your current employer and what position do you hold?

26 A. I am principal of Jean Vissering Landscape Architecture, a landscape  
27 architecture firm specializing in visual resource planning, visual impact assessment, and  
28 townscape and residential design.

29 Q. What are your background and qualifications?

30 A. My educational background includes both undergraduate and graduate  
31 degrees in landscape architecture. I have worked in the field since 1976 in various  
32 capacities including Park Planner and State Lands Planner with the Vermont Department  
33 of Forests Parks and Recreation, faculty member at the University of Vermont, and since

1 1997 as principal of a firm focusing on visual impact assessment, visual resource  
2 planning, community design and residential design. Since 2002 I have worked  
3 extensively with the issue of the visual impacts of wind energy projects. At that time, I  
4 helped facilitate discussions with numerous stakeholders in Vermont in a series of  
5 meetings sponsored by the Vermont Department of Public Service, and wrote *Wind*  
6 *Energy and Vermont's Scenic Landscape* outlining areas of consensus regarding the  
7 design and siting of wind energy projects in Vermont (available on line at the Vermont  
8 DPS website). More recently I co-authored along with other members of a committee  
9 appointed by the National Research Council of the National Academy of Science, a  
10 report titled, *Environmental Impacts of Wind-Energy Projects*, published in 2007. I have  
11 spoken around the country on the issue to groups such as Scenic America and the Clean  
12 Energy States Alliance (CESA). I have provided informal and formal assessments for  
13 several wind projects including the Deerfield Wind project in southern Vermont on  
14 behalf of Iberdrola Renewables, the Redington/Black Nubble Wind Project in Maine on  
15 behalf of the Appalachian Trail Conservancy, and the Kibby Wind Project on behalf of  
16 TransCanada. I have worked on behalf of Towns and Regional Planning Commissions to  
17 provide independent evaluations of proposed wind projects and to ensure a thorough  
18 review.

19 Other visual assessment and planning projects I have worked on include preparing  
20 visual resource planning and protection strategies for Montpelier and Huntington,  
21 Vermont. Through the Act 250 and Section 248 review processes in Vermont, I have  
22 prepared assessments of housing subdivisions, ski areas, transmission lines, and

1 communication towers. Often these have been on behalf of Towns, Regional Planning  
2 Commissions and citizen organizations.  
3 My resume is included as part of Appendix 11 to the GRE Application, the Visual Impact  
4 Assessment, which includes my resume as Appendix G to that Assessment.

5 **Purpose of Testimony and Overview of the Project**

6

7

**Q. What is the purpose of your testimony?**

8

A. The purpose of my testimony is to address the aesthetic impacts of

9

Granite Reliable Power, LLC's ("GRP") Project in Coos County and whether this

10

Project will unduly interfere with the orderly development of the region.

11

**Q. Are you familiar with the Project that is the subject of this**

12

**Application ?**

13

A. Yes, I am. In order to prepare a visual impact assessment of the proposed

14

Project, I must be familiar with all of the physical attributes of the Project and their

15

relationship to and effects on the site and surroundings. However, because my

16

involvement with this Project does not require that I be familiar with issues such as

17

financing and technical details of electrical generation specific to this Project, I am not

18

aware of those details.

19

**Visual Impact**

20

21

**Q. Have you studied the visual impact this Project will have ?**

22

A. Yes. The Visual Assessment Report, which details my study, is included

23

with as Appendix 11 to the GRE Application. The visual assessment was prepared with

24

the assistance of Tom Kokx, principal landscape architect of Thomas Kokx Associates in

25

Gilford, New Hampshire. Mr. Kokx assisted in field work, preparing the viewpoint

1 assessments contained in Appendix E of the report, and in reviewing the report. Mr.  
2 Kokx has extensive experience in visual impact assessment. His resume appears in  
3 Appendix G of the Visual Assessment Report. He was employed for many years by the  
4 U.S. Forest Service for which he both utilized and provided training in the U.S. Forest  
5 Service Scenery Management Systems and other scenic resource inventory processes,  
6 and in their application to natural resource management activities. Since 1997 he has  
7 worked independently, but has continued providing assistance to the USFS. For example  
8 he prepared visual assessments for the Nash Stream Forest, and has worked with the  
9 White Mountain National Forest to implement the new Scenery Management System in  
10 its revised 2006 Forest Plan and to train Forest personnel in its application. He is  
11 currently working with National Forest officials on the Environmental Impact Statement  
12 review of a wind project proposed within the Green Mountain National Forest in  
13 Vermont. He recently completed an extensive planning effort for the NH Division of  
14 Parks and Recreation for the Connecticut Lakes Headwaters Working Forest Recreation  
15 Access and Road Management Plans. Other projects include assisting the New  
16 Hampshire and Maine communities of Meredith, New Hampton, and Ogunquit in visual  
17 resource protection projects.

18 **Q. Please explain what your study entailed.**

19 A. The study provides an analysis of the aesthetic impacts of the Project  
20 using a methodology outlined in the National Academy of Science report mentioned  
21 above. The study focused on a 10-mile radius around the Project site, and also examined  
22 some visually sensitive resources beyond this distance. In general, based upon my study,  
23 I have concluded that significant visual impacts beyond 10 miles are unlikely due to the

1 very small area the Project would occupy within views. Field assessment work  
2 examined: federal, state, and local roads; recreation areas; lakes and ponds; village  
3 centers; hiking trails; historic sites and other resources documented or identified as  
4 having potential aesthetic significance.

5  
6

**Q. Please explain the results of your study.**

7 A. All wind energy projects will result in some visual impacts. The proposed  
8 GRP windpark appears to be well sited and would not result in unreasonable adverse  
9 impacts to the scenic resources within the area. The Project would not be visible from  
10 two of the most significant scenic resources in the area, Dixville Notch and the  
11 Androscoggin River. It would also not be visible from any of the state parks within the  
12 study area, the Connecticut River, Route 3, or Route 110. Visibility from Route 16 is  
13 extremely limited. It will be visible intermittently from sections of Route 26 east of  
14 Colebrook and northwest of Errol. From nearly all viewpoints only portions of the  
15 Project would be seen due to the numerous mountains and hills that block views from  
16 many vantage points. For example views from most residential areas in Colebrook and  
17 Columbia would be limited to the seven turbines along Dixville Peak. From the summits  
18 of both Percy Peak and Sugarloaf Mountains in the Nash Stream Forest, the Project  
19 would be seen at a considerable distance (8-10 miles away) and with only 21 turbines  
20 along Kelsey Mountain and Dixville Peak visible beyond foreground mountains. The  
21 most significant impacts would be to camp owners on Millsfield Pond due to the  
22 Project's proximity at 2.2 miles away and the visibility of turbines along both Kelsey  
23 Mountain and Dixville Peak. The pond however, is on private timber land and is not  
24 identified as a highly valued recreational resource or one for which a natural landscape is

1 critical to the experience of users. The visual impacts of the Project would not  
2 unreasonably degrade scenic or recreational resources of high public value. The major  
3 scenic focal points of the region would be minimally impacted by the Project, and the  
4 scenic quality of the region as a whole would remain.

5 **Q. Did you consider the lighting of the turbines in your evaluation?**

6 A. Yes. The Federal Aviation Administration (FAA) requires that wind  
7 turbines and other high elevation structures be illuminated in order to eliminate risks to  
8 aviation. FAA guidelines do not require daytime lighting and allow nighttime lighting of  
9 perimeter turbines only, at a maximum spacing of 0.5 mile. The lighting of the Project's  
10 turbines is designed to be visible for aircraft; its intensity will be lower than strobe lights  
11 and will not cause glow in the night sky. Intensity of the light will be lower at ground  
12 level and will decrease with distance from the Project. The lights would not be visible  
13 from any public camping areas or other recreation sites which would be used primarily or  
14 frequently during the evening or nighttime hours.

15 **Q. What steps has Granite Reliable Power, LLC taken to mitigate the**  
16 **visual impact of the Project?**

17 A. The most critical tool in minimizing the visual impacts of wind energy  
18 projects is site selection. This site has a number of attributes that minimize both the  
19 visibility of the Project and its overall impacts on the locations from which it would be  
20 seen. The ridgelines are not visually distinctive or notable in the landscape. North and  
21 South Percy Peaks, and the Mahoosuc and Presidential Ranges are examples of visually  
22 distinctive and notable peaks. The Project ridges are located among numerous other  
23 mountains that not only tend to block views from many vantage points but also ensure

1 that when the Project is seen, there would be many other undeveloped mountains and  
2 ridges within the view. Mountains to the west and south of the Project block views  
3 entirely from the Route 3 and Route 110 valleys for example. Fishbrook Ridge (this is a  
4 local name that does not appear on most maps), where 12 wind turbines are proposed to  
5 be located, is difficult to see from anywhere in the region due to other mountains that  
6 surround it. This attribute also means that from most vantage points only a portion of the  
7 Project can be seen, reducing the apparent scale of the Project.

8 Other ridgelines were considered for the Project but were rejected because they  
9 would have had greater impacts on the Nash Stream Forest due to proximity and visibility  
10 from ponds within the Forest. A further mitigating measure resulting from the site  
11 selected for the Project is its proximity to an existing transmission line which minimizes  
12 the construction of new transmission line rights-of-way. The terrain of both the site and  
13 surroundings offers sufficiently moderate grades for access roads and turbine locations so  
14 that regrading and therefore site clearing would be minimized. This also reduces the  
15 potential for any off-site views of project infrastructure. The substation, operations  
16 building and laydown areas will all be located in visually unobtrusive locations.

17 The current use of much of the surroundings for active logging also helps to  
18 reduce visual impacts. These are “industrial forests” with active harvesting operations.  
19 This tends to reduce the scenic quality of the existing landscape, especially within areas  
20 proximate to the Project (within 3 miles) since foreground views tend to be already  
21 altered.

22 **Q. In your opinion will this Project have an unreasonable adverse effect**  
23 **on aesthetics ?**

1           A.     No this Project would not have an unreasonable adverse effect on  
2 aesthetics, for the reasons summarized above and described in detail in my report.

3     **Orderly Development of the Region**

4           **Q.     Do you have an opinion as to whether this Project will unduly**  
5 **interfere with the orderly development of the region ?**

6           A.     I have reviewed the North Country Regional Land Use Plan, which is the  
7 regional planning document pertaining to the affected area. I have also reviewed the  
8 standards set forth in NH RSA 162-H. Neither the above-referenced planning document  
9 nor statute provides any guidance specific to the siting of wind energy projects in New  
10 Hampshire or within Coos County. Nor does either documentary or statutory reference  
11 contain any specific direction for the development of the site which would suggest that  
12 the Project would interfere with the orderly growth of the region.

13          **Q.     Are there any other comments you would like to make at this time?**

14          A.     Yes. I have visited many existing and potential wind sites. In my  
15 experience so far, I have made the determination that two sites were aesthetically  
16 unsuited for a wind project. I have also made determinations that other sites were  
17 unsuitable for proposed wind energy facilities because the proposed scale of the wind  
18 project was too large for the site and surroundings. I have on several occasions refused to  
19 work for clients (both wind developers and opponents) after my initial field investigation  
20 because I could not support the position the clients were advocating. I believe there are  
21 sound and logical methodologies for evaluating the impacts of wind energy facilities.  
22 Based upon my professional training and experience in evaluating sites for proposed

1 wind energy facilities, I believe that the site proposed in this case is an excellent site and  
2 the overall scale of the Project (number of turbines) is well suited for its setting.

3 **Q. Does this conclude your prefiled testimony?**

4 **A. Yes.**

5

6

7 468291\_1.DOC