

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Petition of Georgia Mountain Community Wind,)
LLC for a Certificate of Public Good, pursuant)
to 30 V.S.A. § 248, authorizing the construction)
and operation of a 5 wind turbine electric)
generation facility with associated electric)
collection and interconnection facilities on)
Georgia Mountain, in the Towns of Milton and)
Georgia, Vermont, to be known as the “Georgia)
Mountain Community Wind Project”)

Docket No. ____

**PREFILED TESTIMONY OF
DAVID RAPHAEL**

**ON BEHALF OF
GEORGIA MOUNTAIN COMMUNITY WIND, LLC**

March 26, 2009

The purpose of Mr. Raphael’s testimony is to provide an assessment of the potential aesthetic impacts of the proposed Georgia Mountain Community Wind Project under Section 248(b)(5) of Title 30, Vermont Statutes Annotated.

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1 **1. Introduction**

2 Q1. Please state your name, occupation and business address.

3 A1. My name is David Raphael. I am a landscape architect and the principal of
4 LandWorks. My business address is 228 Maple Street, suite 32, Middlebury,
5 Vermont 05753.

6

7 Q2. Please summarize your qualifications.

8 A2. I began my career as landscape architect and planner working for the State of
9 Massachusetts Department of Environmental Management. Since 1986, I have
10 been the Principal and owner of LandWorks, a multidisciplinary planning, design
11 and communications firm based in Middlebury, Vermont. LandWorks serves

1 both public and private sector clients in Vermont and the Northeast. Our areas of
2 expertise include visual, aesthetic and environmental assessment; site and master
3 planning; graphic communications and GIS mapping; permit planning;
4 participatory and community planning; downtown revitalization; open space and
5 conservation planning; zoning ordinance and design review development;
6 landscape architecture; and environmental design. At LandWorks, we have
7 worked as advocates for communities, appellants, the State of Vermont and
8 private corporations. I personally have presented and served as an expert witness
9 before most of the District Commissions in the State and the Environmental
10 Board, as well as the Public Service Board.

11
12 LandWorks has extensive experience with regard to visual assessment and
13 environmental impact, Criterion 8 of Act 250, and the design and installation of
14 utility facilities and structures. We have been a consultant in this capacity for the
15 Vermont Department of Public Service. We have evaluated the aesthetic and
16 environmental impact of transmission lines and corridors (throughout the state of
17 Vermont); transmission structures (throughout the state of Vermont and the PV20
18 line removal along the Route 2 causeway in Milton/South Hero); proposed
19 telecommunication facilities (Coy Mountain tower proposal); and windpower
20 turbines (Searsburg project developed by Green Mountain Power Corp.). I have
21 provided aesthetic assessments for a number of utility scale wind power projects,
22 including the Sheffield Wind Farm project which recently received a Certificate

1 of Public Good from the Board. I have served as a member of the Design Issues
2 Study Committee appointed by the Secretary of the Agency of Natural Resources,
3 an initiative which clarified the application of the Quechee Analysis for aesthetics
4 and which resulted in the publication of *Vermont's Scenic Landscapes: A Guide*
5 *for Growth and Protection*. In addition, we have prepared zoning ordinances and
6 Management Plans based on scenery preservation and environmental protection
7 guidelines (such as the Town of Stowe Ridgeline and Hillside Overlay District,
8 and the award winning Lake George Upland Protection Program Manual),
9 prepared scenic highway corridor studies (Interstate 91 in Brattleboro, The Molly
10 Stark Byway Management Plan and the Route 100B Scenic Byway Management
11 Plan) and authored a study and state policy which was adopted for permit review
12 of the night lighting of ski areas (Agency of Natural Resources).
13 Additionally, I have been a delegate to the Addison County Regional Planning
14 Commission and continue as chairman of my town's Design Review Board and
15 Planning Commission, a position I have held for over 20 years.

16
17 A copy of my resume is attached as Exhibit Petitioner DR-1.
18

19 Q3. What is the purpose of your testimony?

20 A3. My testimony assesses the aesthetics impacts of the proposed Georgia Mountain
21 Community Wind Project ("Project") under Section 248(b)(5) of Title 30,
22 Vermont Statutes Annotated. Section 248(b)(5) and Public Service Board

1 (“Board”) precedent adopt the basic tenets of Act 250 and the *Quechee* analysis
2 for aesthetics review in the Section 248 process. In addition, the Board weighs
3 the societal benefits of the Project in its decision. Therefore, my testimony and
4 aesthetics assessment report which is part of my testimony, relies upon the
5 *Quechee* analysis as well as Board rulings for its structure and conclusions. A
6 copy of my report is included as Exhibit Petitioner DR-2.

7
8 **2. Summary of Assessment and Conclusion**

9 Q4. Please summarize your findings and conclusions regarding the Project’s potential
10 impacts upon aesthetics.

11 A4. I have conducted numerous field visits, analyzed GIS data and USGS maps, aerial
12 photography and the proposed Project design plans to best understand the Project.
13 As with hydroelectric power, the development of windpower is consistent with
14 the local resource base and represents the transition that is occurring in certain
15 locales to a renewable resource based energy generation strategy. Just as water
16 pumping windmills were prevalent in New England and the Midwest during the
17 late 19th and early 20th century, the grid-connected wind turbine will become a
18 more familiar site as well.

19
20 The Project site itself and Georgia Mountain is not a pristine area, as it has many
21 ATV trails, a cell tower with an access road up to it and the effects of past and
22 present logging. Many woods roads are scattered throughout the Project vicinity.

1 Nonetheless, based upon my assessment, I have determined that the Project would
2 have an adverse impact on aesthetics of the area due to the introduction of large
3 turbines which will be visible from a number of public viewsheds. However, the
4 average person viewing the Project would not be shocked or offended because the
5 majority of the public viewing areas are at a sufficient distance from the proposed
6 turbines that the turbines would not dominate the view. Where the Project would
7 be visible from public roads, the views will be intermittent due to vegetative
8 screening along the roads and, due to the speed of the vehicle, the duration of the
9 view would be limited. Drivers along Interstate 89 would have a direct view of
10 the Project, with the closest turbine being nearly 4 miles from the Project. Due to
11 the speed of the vehicles on the interstate, their views would be limited.

12 Arrowhead Lake itself is a man-made impoundment created by the hydroelectric
13 facility situated in Milton Village. The Interstate itself is not scenic in this area
14 and represents a major development intrusion onto the landscape. Additionally,
15 this is not considered an outstanding scenic view area. There is some limited
16 recreational use at the northern end of Arrowhead Lake near the railroad bridge
17 where a boat launch is located. The views from Lake Champlain of the Project
18 will be from a distance of over 8 miles and are limited to only a few land areas,
19 and only about 50% of the lake's waters are within the Project's 10 mile radius.

20 The view of the Project will be in the context of a much broader panorama, with
21 many other landmarks and focal points to draw the eye. The scale of the turbines
22 from these distances is such that the Project will not be prominent or dominant in

1 the view. The presence of the turbines will not materially change the recreational
2 atmosphere or experience with respect to sun, water quality or noise. The Project
3 would not violate any clear, written community standard. In fact, the Town of
4 Milton 2008 Comprehensive Plan has as a goal to facilitate renewable energy
5 development in Milton, citing in particular the development of wind energy on
6 Georgia Mountain. (See Exhibit Petitioner DR-2, at 29-30.) A more detailed
7 assessment of the Project's aesthetic impacts and my conclusions are contained in
8 my Visual Report, Exhibit Petitioner DR-2.

9

10 Based upon my aesthetic assessment, the proposed Project upgrades will not have
11 an undue aesthetic impact.

12

13 Q5. Does this conclude your testimony at this time?

14 A5. Yes, it does.