

STATE OF VERMONT
PUBLIC SERVICE BOARD

Joint Petition of Green Mountain Power)
Corporation, Vermont Electric Cooperative, Inc.)
and Vermont Electric Power Company, Inc. for a) Docket No. _____
Certificate of Public Good pursuant to 30 V.S.A. §)
248, to construct up to a 63 MW wind electric)
generation facility and associated facilities on)
Lowell Mountain in Lowell, Vermont and the)
installation or upgrade of approximately 16.9 miles)
of transmission line and associated substations in)
Lowell, Westfield and Jay, Vermont)

PREFILED TESTIMONY OF
DAVID RAPHAEL
ON BEHALF OF GREEN MOUNTAIN POWER CORPORATION

May 21, 2010

Summary of Testimony

Mr. Raphael’s testimony provides an assessment of the potential aesthetic impacts of the proposed Kingdom Community Wind Project under 30 V.S.A. §248(b)(5) and finds no undue adverse impact.

**PREFILED TESTIMONY OF DAVID RAPHAEL
ON BEHALF OF
GREEN MOUNTAIN POWER CORPORATION**

1 **1. Q. Please state your name, current position, employer and business address.**

2 **A.** My name is David Raphael and I am a Professional Landscape Architect and
3 Planner as well as a Lecturer in the School of Natural Resources at the University of Vermont. I
4 am the Principal and owner of LandWorks, a multidisciplinary planning, design and
5 communications firm based in Middlebury, Vermont. My business address is 228 Maple Street,
6 Suite 32, Vermont 05753.

7
8 **2. Q. Please state briefly your educational background and business experience.**

9 **A.** I began my career as landscape architect and planner working for the State of
10 Massachusetts Department of Environmental Management. I have been associated with
11 LandWorks since its inception in 1986. LandWorks serves both public and private sector clients
12 in Vermont and the Northeast. Our areas of expertise include visual, aesthetic and environmental
13 assessment, site and master planning, graphic communications and GIS mapping, permit
14 planning, participatory and community planning, downtown revitalization, open space and
15 conservation planning, zoning ordinance and design review development, landscape architecture
16 and environmental design. At LandWorks we have worked as advocates for communities,
17 appellants, the State of Vermont and private corporations. I personally have testified and served
18 as an expert witness before most of the District Commissions in the State and the former
19 Environmental Board, as well as the Public Service Board.

1 LandWorks has extensive experience with regard to visual assessment and environmental
2 impact, Criterion 8 of Act 250, and the design and installation of utility facilities and towers. We
3 have evaluated the aesthetic and environmental impact of (1) transmission lines and corridors
4 (including the Northwest Reliability, Lamoille and Southern Loop projects, and the PV20 line
5 removal along the Route 2 causeway in Milton/South Hero); (2) telecommunication facilities
6 (Coy Mountain tower proposal and four telecommunications facilities in Essex and Milton,
7 Vermont proposed by FairPoint Communications); and (3) wind energy development, the
8 Searsburg Project, the Sheffield project (on behalf of UPC, now First Wind), and three wind
9 projects in Maine (on behalf of First Wind). We have prepared feasibility studies for wind
10 energy facilities siting for the Lamoille County Development Commission. I have served as a
11 member of the Design Issues Study Committee appointed by the Secretary of the Agency of
12 Natural Resources, an initiative which clarified the application of the Quechee Analysis for
13 aesthetics and which resulted in the publication of *Vermont's Scenic Landscapes: A Guide for*
14 *Growth and Protection*. In addition, we have prepared a number of zoning ordinances based on
15 scenery preservation and environmental protection guidelines (for example, the Town of Stowe
16 Scenic Hillside and Overlay District), prepared scenic highway corridor studies (interstate 91 in
17 Brattleboro) and authored a study and state policy which was adopted for permit review of the
18 night lighting of ski areas (Agency of Natural Resources). I have also recently helped to author a
19 revision to the EPRI Transmission Line Reference Book – 115-345kV Compact Line Design,
20 Chapter 9. A copy of my resume is attached as **Exh. Pet.-DR-1**.

21

1 **3. Q. Have you ever testified before the Public Service Board?**

2 **A.** Yes, I have presented testimony on behalf of the Department in connection with
3 Dockets 6860 (Northwest Reliability Project), 7032 Lamoille County Project), 7314 (East
4 Avenue Loop), 7373 (Southern Loop), and 7250 (Searsburg Wind Project). I have also testified
5 on behalf of UPC (now first Wind) for Docket 7156 (Sheffield Wind Project) and on behalf of
6 Georgia Mountain Community Wind in Docket 7508.

7

8 **4. Q. Please describe your analysis and conclusions.**

9 **A.** My report addresses the Kingdom Community Wind Project (the “Project”) in
10 light of the aesthetics, orderly development and public investment criteria of 30 V.S.A. § 248(b).
11 As set forth in my report, “Aesthetic Assessment Of The Proposed Kingdom Community Wind
12 Project,” my analytical methods included visual and cartographic analyses, document research
13 and review. See **Exh. Pet.-DR-2**. Landworks’ primary analyses assess the Project’s visibility
14 and potential for visual and aesthetic impacts, with a focus on vantage points from major federal,
15 state or local roads; relationships to nearby areas of public interest; or high scenic value and/or
16 official designation as a cultural, aesthetic or recreational facility or resource. Locations that
17 involve residential areas in close proximity to the proposed wind farm were also considered. I
18 have used on-site and field study to reinforce my analyses and findings, and have also
19 documented public sentiment and concerns in this process.

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21 I have conducted my Project aesthetic analysis within the parameters set forth in Section 248 for
22 review of utility scale energy generation and transmission projects, including the Quechee

1 Analysis, established in the 1985 Environmental Board *Quechee Lakes* decision. This analysis
2 also recognizes that the Public Service Board weighs “societal benefits” when considering the
3 aesthetic impacts of projects within its jurisdiction.

4

5 Additionally, my analysis and exhibits follow the recommendation of the Vermont Commission
6 on Wind Energy Regulatory Policy that visual impacts within a 10-mile radius of the Project site
7 be evaluated. The analysis also benefits from and incorporates elements of a variety of wind
8 resource reports found on the Vermont Department of Public Service’s website, such as *Wind*
9 *Energy Planning Resources for Utility-Scale Systems in Vermont* issued as a product of the Wind
10 Siting Consensus Building Project in October 2002.

11

12 It is my conclusion, as reflected in my report, that the Project has no undue adverse affects on
13 aesthetics, the orderly development of the region, or public investments.

14

15 **5. Q. Does this conclude your testimony?**

16 **A.** Yes.

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