STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Petition of BNE Energy Inc. for a Declaratory Ruling for the Location, Construction and Operation of a 3.2 MW Wind Renewable Generating Project on New Haven Road in Prospect, Connecticut ("Wind Prospect")

Petition No. 980

February 16, 2011

PETITIONER BNE ENERGY INC.'S INTERROGATORY RESPONSES TO FAIRWINDCT, INC.'S INTERROGATORIES DATED FEBRUARY 9, 2011

Petitioner BNE Energy Inc. ("BNE") submits the following responses to interrogatories issued by FairwindCT, Inc.'s interrogatories dated February 9, 2011:

Q1. Please provide the GPS coordinates of each proposed turbine location.

A1. Northern Turbine: 41-28-35.218 / 72-58-22.685

Southern Turbine: 41-28-23.720 / 72-58-20.289

Q2. Please provide the approximate date on which you or your representatives first informed members of the Siting Council and/or its staff that you would be seeking the Council's approval for this project.

A2. BNE objects to this interrogatory because the information sought is irrelevant to this proceeding.

Subject to this objection and without waiving the same, BNE and its representatives had several meetings with Council staff prior to filing this petition to discuss procedural issues as is common practice for the Council. Those meetings occurred over the course of the past two years. A representative from the Connecticut Clean Energy Fund attended at least one of these meetings.

Q3. Please provide support, including citations, for your statement on page 6 of your Shadow Flicker Analysis report that "Several communities in the United States have adopted a 30-hour annual limit for shadow flicker occurrences."

A3. As discussed in the Shadow Flicker Analysis ("Analysis"), VHB is not aware of any national, state or local regulations governing shadow flicker durations. The only known shadow flicker regulation was enacted in Germany, where a court ruled that the maximum allowable flicker duration should not exceed 30 hours per year.[1] In Austria, it was recommended

[1] Michigan Land Use Guidelines for Siting Wind Energy Systems, Michael Klepinger, October 2007.

that show flicker should not exceed 30 hours per year.[2] Guidelines for wind power development in Victoria, Australia specify that shadow flicker may not exceed 30 hours per year at any dwelling in the surrounding area.[3] Although wind energy ordinances currently exist in some communities throughout this country, many have no regulations in place.[4] In communities where ordinances or bylaws exist, and shadow flicker is addressed, it is typically expected that potential shadow flicker will be analyzed for impacts to off-site structures, including the extent and duration (Long Lake Township, Michigan,[5] for example). In some instances, a project owner/operator is required to make every reasonable effort to minimize shadow flicker to occupied buildings (Antic Township, Pennsylvania; Rockland, Wisconsin[6]). The comment on page 6 of the Analysis regarding communities in the United States adopting a 30-hour annual limit should have read "Several applications for wind turbines in communities in the United States have adopted a 30-hour annual limit for shadow flicker occurrences." In our literature research, it is evident that the vast majority of shadow flicker analyses have incorporated this threshold, most likely as a result of there being no domestic regulations and relying on the European and Australian guidelines. One example is a Shadow Flicker Analysis conducted for the proposed Blue Creek Wind Farm in Ohio (prepared by Epsilon Associates in April, 2010). This report indicates that ... "it is expected that the OPSB [Ohio Power Siting Board] will impose a condition of not to exceed 30 hours per year of shadow flicker at a residence."[7]

Q4. Please explain the methodologies used by the "[s]everal communities in the United States [that] have adopted a 30-hour annual limit for shadow flicker occurrences" to analyze, monitor and enforce that 30-hour annual limit.

A4. BNE objects to this interrogatory because BNE does not have knowledge of methodologies used by other communities.

Q5. Please define the term "appropriate setbacks" by feet or meters as used in your responses to questions 5 and 6 the Council's first set of interrogatories, dated February 3, 2011.

A5. BNE believes that an appropriate setback is a distance in feet or meters from homes, businesses or main roads that allows a turbine to operate safely and comply with applicable laws.

Q6. What are "the setbacks proposed by BNE" discussed in your response to question 26 the Council's first set of interrogatories, dated February 3, 2011? Please define those setbacks by feet or meters.

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[2] Dobesch and Kury (2001), Central Institute for Meteorology and Geodynamics (ZAMG) Vienna, Austria: "Basic Meteorological Concepts And Recommendations For The Exploitation of Wind Energy In The Atmospheric Boundary Layer."
[3] Sustainable Energy Authority Victoria, May 2003: "Policy and planning guidelines for development of wind energy facilities in Victoria", p.26.
[4] F. Oteri, *An Overview of Existing Wind Energy Ordinances*, December 2008.
[5] Ibid.
[6] Ibid.
[7] http://www.iberdrolarenewables.us/bluecreek/docs/supplemental/BC-Shadow-Report-040710-Final.pdf, p 3-1.

A6. The information has already been provided. *See* response to interrogatory Q21 to the Siting Council interrogatories dated February 3, 2011 and response to Save Prospect interrogatory Q13 dated February 16, 2011.

Q7. In your response to question 2 of the Council's first set of interrogatories, dated February 3, 2011, you state that "[i]t is unlikely that GE's 1.6-100 Class III turbine would be suitable for this Site." In your response to question 2 of the Council's first set of interrogatories, dated February 3, 2011, you state that "BNE has determined . . . that two GE 1.6 MW wind turbines with 82 meter diameter blades may be sited on the Property as proposed." Please confirm that you are now seeking approval for two GE 1.6-82.5 turbines rather than two GE 1.6-100 turbines.

A7. As discussed in BNE's petition, BNE anticipates utilizing the GE 1.6 MW turbine with a 100 meter hub height and 82 meter diameter blade. However, due to the ever changing technology, BNE is seeking approval to utilize the 100 meter hub height with a 100 meter diameter blade. As also noted in BNE's petition, BNE utilizes this "worst case scenario" in its visibility analysis.

Q8. Please provide a copy of the Mechanical Loads Assessment conducted by GE and described in your responses to questions 1, 2 and 6 of the Council's first set of interrogatories, dated February 3, 2011.

A8. The information requested is confidential and proprietary. Therefore, BNE is filing the MLA separate to these responses and subject to a protective order and under seal with the Council.

Q9. How many wind turbine projects in the Northeast that are presently operating have annual capacity factors of approximately 30 percent? Please identify those projects by location, number of turbines and type of turbines (size and model).

A9. BNE objects to this interrogatory because economic considerations, such as capacity factors, are outside the scope of the Siting Council's jurisdiction as defined by Connecticut General Statutes §§ 16-50g and 16-50k. BNE further objects to this interrogatory because the information sought is irrelevant to this proceeding.

Q10. How many wind turbine projects in the United States that are presently operating have annual capacity factors of approximately 30 percent? Please identify those projects by location, number of turbines and type of turbines (size and model).

A10. *See* objection to Q9.

Q11. On February 3, 2011, Mr. Corey testified at a hearing before the Energy and Technology Committee of the Connecticut legislature and promised to provide a written submission detailing the "specific" number of jobs that will be created by Wind Prospect. Please provide the specific number of jobs that will be created.

A11. *See* objection to interrogatory Q9.

Subject to this objection and without waiving the same, *see* pre-filed testimony of Joel Rinebold dated February 16, 2011.

Q12. On February 3, 2011, Mr. Corey testified at a hearing before the Energy and Technology Committee of the Connecticut legislature and stated that GE has "lots of rules" regarding setbacks that BNE has followed. Please provide copies of those rules.

A12. The information requested is confidential and proprietary. Therefore, BNE is filing GE information separate to these responses and subject to a protective order and under seal with the Council.

Q13. The "Wind Assessment" included in the petition is only a summary of data collected from the meteorological tower on the Site. Please provide the raw data upon which the summary assessment relies, in native electronic format.

A13. The information requested is confidential and proprietary. Therefore, BNE is filing the raw wind data separate to these responses and subject to a protective order and under seal with the Council.

BNE ENERGY INC.

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CERTIFICATION

This is to certify that a copy of the foregoing has been mailed this date to all parties and intervenors of record.

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