STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

BNE Energy, Inc. Petition For a Declaratory Ruling That No Certificate of Environmental Compatibility and Public Need Is Required for the Construction, Maintenance, and Operation of a 3.2 MW Wind Renewable Generating Facility Located at 178 New Haven Road, Prospect, Connecticut ("Wind Prospect")	**Petition 980** **February 16, 2011**

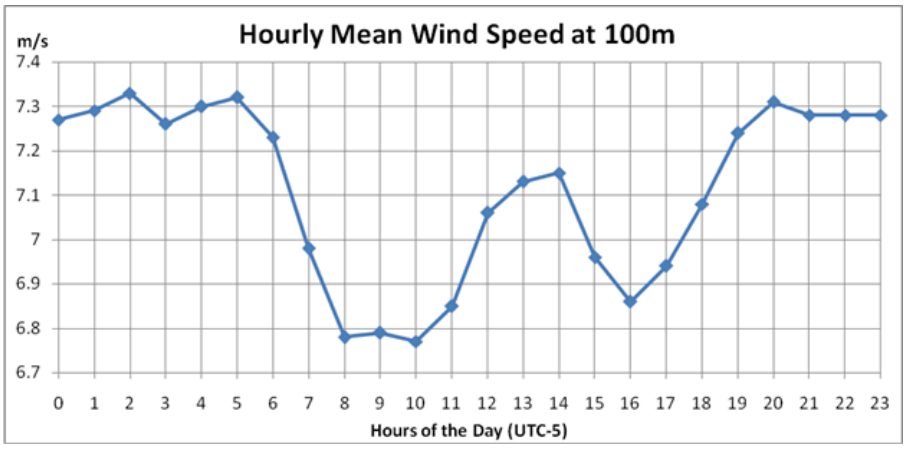
PETITIONER BNE ENERGY INC.'S INTERROGATORY RESPONSES TO CONNECTICUT SITING COUNCIL'S SECOND SET OF INTERROGATORIES DATED JANUARY 28, 2011

Petitioner BNE Energy Inc. ("BNE") submits the following responses to interrogatories issued by the Connecticut Siting Council dated January 28, 2011:

Q29. Exhibit N, Noise Impact Analysis pages 9 and 10 describe the project generated sound levels based on an assumed daytime wind speed of 9 m/s and a nighttime wind speed of 8 m/s. Please explain the basis for selecting the lower wind speed at night.

A29. The highest sound levels that the wind turbine could generate will occur at a wind speed of 9 m/s, or greater. The noise analysis assumed a wind speed of 9 m/s for the daytime period as a worst case condition. The noise analysis used a wind speed of 8 m/s for the nighttime based upon average actual wind data at the site. Wind data was collected at the site covering nearly 15 months, ranging from 11-04-2008 to 01-24-2010. Although, the data indicates that there could be maximum wind speeds at night exceeding 8 m/s on occasions, the average annual nighttime wind speeds are in the range of 7 m/s to 7.33 m/s. Therefore, using 8 m/s for the nighttime noise analysis predicts what we feel would be typical sound levels that could occur during nighttime conditions.

The wind data is presented below in a graph showing the **one day average** of the 14.7 month measured wind data at a height of 100 meters.



Q30. Exhibit N, Noise Impact Analysis, Appendix, Sound Level Calculations provide spreadsheets for both the daytime and nighttime noise calculations. Please explain the basis for selecting the sound power level for the nighttime project generated sound, which is 104 dB versus the daytime sound level of 106 dB?

A30. The maximum sound levels from the wind turbine are dependent upon the wind speed. The highest sound levels (106 dB) from the turbine will occur starting at a wind speed of 9 m/s. For a wind speed of 8 m/s, the sound level is 104 dB. The sound levels for the noise analysis were selected based upon the assumed wind speeds for the daytime and nighttime periods, that are 9 m/s for the daytime periods as a worst case condition and 8 m/s for the nighttime based upon average actual wind data at the site. If the nighttime wind speed were assumed to be at the highest sound level that the turbine could generate (106 dB at 9 m/s), the nighttime sound levels would increase by 1 or 2 dB, but would not exceed the nighttime residential impact criteria for a C-emitter. For the majority of the time, the sound emanating from the wind turbines would be lower than the maximum levels used in the Noise Impact Analyses calculations, as demonstrated by the average wind speeds.

Q31. Does GE have a recommended exclusion zone for ice throw or blade throw for the proposed turbine?

A31. Yes. GE's recommended setbacks include a zone for ice throw. The document is confidential and being filed separately pursuant to protective order and under seal.

Q32. Provide the distance and location of nearby weather stations that maintain weather records, especially of wind data.

A32. BNE previously purchased the Oxford Waterbury Reference Wind Data located approximately 8 miles from the Site for the dates of 2-26-1992 till 8-27-2009, which is attached hereto as Exhibit 1. In addition, the following wind data can be purchased online from the Weather Warehouse at: http://weather-warehouse.com/index.html;

- **Meriden Markham Municipal Airport, Meriden, CT 06451 (New Haven County) located 7.75 miles away from the Prospect site**

Station operational period: 9/15/1975 through Current
Latitude: 41.51, Longitude: -72.83
Elevation: 31.4 m (103 ft)
Time Zone: -5 (Uses Daylight Savings Time)

- **Oxford Waterbury, Oxford, CT 06478 (New Haven County) located 8.3 miles away from the Prospect site**
  Station operational period: 2/27/1992 through Current
  Latitude: 41.48, Longitude: -73.13
  Elevation: 221.9 m (728 ft)
  Time Zone: -5 (Uses Daylight Savings Time)

- **New Haven Tweed Airport, East Haven, CT 06512 (New Haven County) located 12.5 miles away from the Prospect site**
  Station operational period: 1/1/1973 through Current
  Latitude: 41.3, Longitude: -72.9
  Elevation: 4.3m 14ft
  Time Zone: -5 (Uses Daylight Savings Time)

Q33. Please provide historical data on wind velocity at times of peak electrical demand, i.e., during hot summer days and cold winter evenings. Provide the nearby weather stations used to obtain this data.

A33. BNE has measured the site specific wind resources since November 4, 2008. EPE conducted an evaluation of the site specific resources for a period of approximately 14.7 months from November 4, 2008, to January 24, 2010. See EPE's Wind Assessment Report for Prospect, dated April 10, 2010, and filed as an attachment to VHB's Noise Evaluation Report, Exhibit N to the petition. The table below lists the average nighttime (6 pm to 6 am) and daytime (6 am to 6 pm) wind speeds for each month of the 14.7 month site measured wind data.

Month	Nighttime Average Wind Speed at 100 m [m/s]	Daytime Average Wind Speed at 100 m [m/s]
January	7.07	7.01
February	8.40	8.32
March	7.49	6.83
April	7.24	7.51
May	6.52	6.09
June	5.60	5.07
July	5.99	5.40
August	6.20	5.06
September	6.86	6.07

October	7.37	6.96
November	7.27	7.14
December	8.29	8.33

The measured site specific wind data and EPE report provide the best indication of wind velocity on the site throughout the year. The detailed wind data is confidential and propriety and being filed subject to a protective order. Nearby weather stations were not used to obtain this data.

Q34. What is the capacity factor of the turbines? For what percentage of hours will the turbines be available?

A34. The capacity factor of the turbines is expected to be approximately 30 percent. *See also* EPE's Wind Assessment Report for Prospect, dated April 10, 2010, and filed as an attachment to VHB's Noise Evaluation Report, Exhibit N to the petition. The wind turbines are expected to be available 98 percent of the time or more.

Respectfully Submitted,

By: /s/ Carrie L. Larson

Attorney For BNE Energy Inc.
Carrie L. Larson, Esq.
clarson@pullcom.com
Pullman & Comley, LLC
90 State House Square
Hartford, CT 06103-3702
Ph. (860) 424-4312
Fax (860) 424-4370

Certification

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

Mayor Robert Chatfield
Town Office Building
36 Center Street
Prospect, CT 06712-1699

Jeffrey Tinley
Tinley, Nastri, Renehan & Dost LLP
60 North Main Street
Second Floor
Waterbury, CT 06702

Thomas J. Donahue
Killian & Donahue, LLC
363 Main Street
Hartford, CT 06106

Nicholas J. Harding
Emily A. Gianquinto
Reid and Riege, P.C.
One Financial Plaza, 21st Floor
Hartford, CT 06103

John R. Morissette
Manager-Transmission Siting and Permitting
The Connecticut Light & Power Company
P.O. Box 270
Hartford, CT 06141-0270

Christopher R. Bernard
Manager-Regulatory Policy (Transmission)
The Connecticut Light & Power Company
P.O. Box 270
Hartford, CT 06141-0270

Joaquina Borges King
Senior Counsel
The Connecticut Light & Power Company
P.O. Box 270
Hartford, CT 06141-0270

/s/ Carrie L. Larson
Carrie L. Larson

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