STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

Petition of BNE Energy Inc. for a Declaratory Ruling for the Location, Construction and Operation of a 4.8 MW Wind Renewable Generating Project on Flagg Hill Road in Colebrook, Connecticut ("Wind Colebrook South")

Petition No. 983

May 20, 2011

ROBIN L. HIRTLE AND KRISTIN AND BENJAMIN MOW'S PROPOSED FINDINGS OF FACT

Robin L. Hirtle and Kristin M. Mow and Benjamin C. Mow, parties in the above-captioned petition, hereby submit these proposed Findings of Fact pursuant to the scheduling order of the Siting Council inviting such submissions by May 20, 2011.

Introduction.

Ms Hirtle and Mr. and Mrs. Mow herein adopt and incorporate by reference the proposed findings of facts submitted by FairwindCT, Inc. related to the filing of the petition and its claims, statutory and regulatory background, procedural history, notice, state agency comment, general site and facility description, proposed power plant description, wetlands, wildlife and environmental impacts (noise, air, water), and general public health and safety issues as if fully set forth herein.

TOWN OF COLEBROOK FINDINGS OF FACT.

These parties also expressly adopt and incorporate by reference herein the proposed findings of facts submitted by the Town of Colebrook in this proceeding as related to the impact of this proposed project on Flagg Hill Road and the potential need for, and factors related to, decommissioning.

Additional proposed findings of facts:

- 1. Robin L. Hirtle petitioned for party status in this proceeding December 11, 2010; party status was granted by Siting Council January 19, 2011.
- 2. Kristin M. and Benjamin C. Mow petitioned for party status in this proceeding January 11, 2011; party status was granted by Siting Council January 20, 2011.

- 3. On March 17, 2011 the Council voted to group Robin Hirtle, Benjamin and Kristin Mow, David Lawrence and Jeannie Lemelin, Walter Zima and Brandy Grant, and Eva Villanova as parties with the same interests. On March 28, 2011 Robin L. Hirtle and Kristin M. Mow and Benjamin C. Mow exercised their statutory right not to be grouped with the others and have proceeded, together, as separate parties in this action.
- 4. The proposed wind turbine nearest to the home and property of Robin L. Hirtle, at 29-A Flagg Hill Road, Colebrook, is Turbine 1, farthest south-west; the distance of the turbine tower to the property line of Ms Hirtle is 760 feet and to her home, 985 feet. BNE responses to Hirtle interrogs #9.
- 5. The proposed "Facility Support Building" is proposed to be 330 feet to the property line and 560 feet to the home of Robin L. Hirtle at 29-A Flagg Hill Road, Colebrook. BNE responses to Hirtle interrogs #10.
- 6. BNE claims access to the subject site, its property at 29 Flagg Hill Road, until its "proposed access road" in its site plans is operational, via a mutual driveway easement used by Ms Hirtle, and, if ruled permissible in a collateral civil action, permanently. Hearing, P. Corey 4/26/11.
- 7. BNE's proposed new access road, as depicted on its site plans, Petition Vol. II, Exhibit F, pages C-002 and following, will be 102 feet from the property line of Ms Hirtle at 29-A Flagg Hill Road and 225 feet from her home. BNE responses to Hirtle interrogs #11.
- 8. The turbines with a blade tip length of only 41.25 feet will be visible at the home of Kristin and Benjamin Mow at 12A Greenwoods Turnpike, Colebrook CT. Petition, Exhib. J; BNE responses to Mow interrogs #1.
- 9. The Mows have an 8-year old son, Daniel, diagnosed with benign paroxysmal vertigo, who is sensitive to lighting and sounds, cannot be around strobe lighting and is otherwise affected by the movement of the proposed turbines. Hearing 05/05/11; Mow testimony 3/14/11.
- 10. The Mows are concerned about the effects of these proposed wind turbines especially upon their son Daniel. Mow testimony.
- 11. BNE has employed no medical professionals to assess the health or medical impacts of their proposed turbines upon residents living in the area, has no information as to the impacts of their proposed project upon a young child who has vertigo. Hearing 05/05/11, Corey.
- 12. BNE proposed residents living in the area fearful of noise and other impacts of the turbines seek self-help to remediate the effects of the turbines by adding insulation to their homes or improving the qualities or adding onto their windows. Hearing 05/05/11, Corey.
- 13. Wind turbines accumulate ice at temperatures near freezing (0°C / 32°F) or with high humidity and freezing rain or sleet; weather conditions may then cause ice to be shed,

- propelling ice fragments up to several hundred meters, which may cause damage to structures and vehicles, injury to site personnel and the general public. Admin. Notice Item 2.
- 14. Various actions for mitigating the effects of ice throw are recommended, including setbacks of 1.5 times the combined hub height plus rotor diameter, automatic deactivation, fencing/signage, and site personnel restriction. Admin. Notice Item 2.²
- 15. Extreme wind speeds caused by a severe weather situation such as a hurricane or tornado may result in mechanical load levels that can lead to damage or failure of wind turbine components. Admin. Notice Item 3, at 1.3
- 16. Wind speeds measured by the maximum gust over a 50-year return period for a 3-second averaging time range from 52 to 70 meters per second; the turbine is assumed to be able to pitch the blades in a feathered position, and that site conditions meet recommended standards. Admin. Notice Item 3 at 1.
- 17. Recommended actions for mitigating the effects of extreme wind include appropriate siting and setbacks, fencing/signage, and site personnel restriction. Admin. Notice Item 3.
- 18. A study of the health and medical effects of wind turbines on local residents near Presque Isle, Maine, indicated significant increase in physical ailments, weight change, sleep disorders, medication use and mental impacts. Admin. Notice Item 5.4
- 19. Infrasound is identified as sounds at a frequency so low as to be unable to be perceived by the human ear; they can carry through the atmosphere for many kilometers and are believed to cause certain breathing, digestive and other health problems for persons living close to wind farms. Admin. Notice Item 6.5
- 20. Values of these parties' properties are likely to decrease based on information each has received from their professional real estate marketing sources. Testimony, Hirtle, re-filed 5-19-11; testimony, Mow, 3-15-11.

At: http://st-www.ge-energy.com/prod_scrv/products/tech_docs/en/downloads/ger4262.pdf
At public hearing on this petition, April 26, 2011 Siting Council requested Internet URL citations for this and the other public domain G.E. articles on these parties' Administrative Notice list dated March 14, 2011. This and the following articles have been located by independent online Internet research.

Setback information contained in this paragraph is derived from the pamphlet identified as Administrative Notice Item 2. Unlike Administrative Notice Items 2 & 3, the G.E. setback information identified as Administrative Notice Item 4 for these parties is marked "confidential" directly upon the document, and therefore is not included herein; it may or may not be the same information protected under seal at the Siting Council as confidential evidence – the sealed information has not been inspected by the undersigned. The public domain Internet access URL for that confidential "setback article" is available but is not entered herein.

At: http://h2o.enr.state.nc.us/admin/emc/documents/ger4277_ExtremeWind.pdf
See fn. 1.

M. A. Nissenbaum, MD, "Mars Hill Wind Turbine Project Health Effects – Pilot Study March 2007," at: http://www.windaction.org/documents/27985

Julia Layton: "Do wind turbines cause health problems?" at: http://science.howstuffworks.com/environmental/green-science/wind-turbines-health1.htm

Respectfully Submitted,

ROBINLL. HIRTLE,

KRISTIN M. MOW and BENJAMIN C. MOW

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CERTIFICATION

I hereby certify that a copy of the foregoing document was sent by U.S. mail and via email/electronic service to the following service list on this the _____20th_ day of the month of May 2011:

Carrie L. Larson
Paul Corey
Emily A. Gianquinto
Nicholas J. Harding
Thomas D. McKeon
David M. Cusick
John R. Morissette (email only)
Christopher R. Bernard (email only)
Joaquina Borges King (email only)
David R. Lawrence and Jeannie Lemelin
Walter M. Zima and Brandy Gant

Eva Villanova

Richard T. Roznoy

Commissioner of the Superior Court

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May 20, 2011

ROBIN L. HIRTLE AND KRISTIN AND BENJAMIN MOW'S POST-HEARING BRIEF

The Siting Council has invited parties to submit post-hearing briefs regarding this petition by May 20, 2011. Robin L. Hirtle, Kristin and Benjamin Mow hereby submit the following summary brief for the consideration of the Siting Council.

As noted in the enabling legislation for the Siting Council, and as repeated on the Council's website, a prime responsibility, or the first responsibility, of the Council, is to "balanc[e] the need for adequate and reliable public utility services at the lowest reasonable cost to consumers with the need to protect the environment and ecology of the state and to minimize damage to scenic, historic, and recreational values."

The petition before the Council seeks a declaratory ruling with the petitioner, BNE Energy, Inc. citing Conn. Gen. Stat. § 16-50k, "Certificate of Environmental Compatibility and Public Need" as the basis of jurisdiction for its petition. *See* Petition, pg. 1. Therefore, factors identified for certification under C.G.S.§ 50p are applicable to the Council's determination in this matter:

The council shall not grant a certificate, ... unless it shall find and determine:

- (A) ... a public need for the facility and the basis of the need;
- (B) The nature of the probable environmental impact of the facility alone and cumulatively with other existing facilities, including a specification of every significant adverse effect, ... whether alone or cumulatively with other effects, on, and conflict with the policies of the state concerning, the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish, aquaculture and wildlife.

Conn. Gen. Stats. § 16-50p(a)(3).

Further, the standard of review the Council is to apply is stringent. In order to approve, the Council must make a determination

(C) Why the adverse effects or conflicts referred to in subparagraph (B) of this subdivision are not sufficient reason to deny the application.

The Council must determine whether a "public benefit" applies in order to approve:

(c) (1) The council shall not grant a certificate for a facility described in subdivision (3) of subsection (a) of section 16-50i ... unless it finds and determines a public benefit for the facility.

. . .

(3) For purposes of subparagraph (A) of this subdivision, a public benefit exists if such a facility is necessary for the reliability of the electric power supply of the state or for the development of a competitive market for electricity and a public need exists if such facility is necessary for the reliability of the electric power supply of the state.

C.G.S. § 50p(c). In addition, a "public need" must be demonstrated — "... a public need exists for an energy facility if such facility is necessary for the reliability of the electric power supply of the state." C.G.S. § 50-p(h).

It is these parties' position that the petitioner, BNE Energy, Inc., has not met its burden to enable the Siting Council to grant the petition for Declaratory Ruling. The balance between the need for adequate and reliable electricity against the need to protect the environment and ecology of the state and minimize scenic, historic and recreational deterioration is not in favor of the proposed facility. Based on the evidence presented by petitioner, the countervailing evidence of all the parties and intervenors, and testimony at public hearings, the petitioner has not demonstrated that the impact of their proposed facility will bring a greater benefit to the State of Connecticut than it will create a negative impact.

This summary conclusion is borne out by the testimony and evidence presented which demonstrates this proposed project will have adverse effects and impacts upon the residentially-zoned neighborhood in which it is proposed in terms of noise interference, sight disturbance, and imposition of industrial machinery, major impacts on the roadways and infrastructure of the area. The petition has not fully considered the impacts of the project on the wetlands and conservation characteristics of the proposed site, and the proposed locations of the wind towers has been demonstrated, by testimony of opponents' experts, to be inadequate for the health and safety of residents in the area. Moreover, the petitioner has not shown that the proposed facility would be

able to generate sufficient electricity, on a consistent basis, to create the "development of a competitive market for electricity ... for the reliability of the electric power supply of the state," as required by statute. CGS § 50p(c)(3).

Although this petition has been presented as a "clean" energy source, evidence and testimony demonstrates that it will, nevertheless, have a significant adverse impact on wetlands, on wildlife and fauna and on the intangible factors related to residents living in an area of their choice. That it does not add carbon to the atmosphere does not mean it has no adverse impact.

As noted throughout these proceedings, Connecticut has developed statutory controls (Conn. Gen. Stat. § 22a-69) and regulations regarding noise, but the data and monitoring provided by the petitioner have been shown to lack sufficient detail to determine the petition should be approved. *See* testimony of T. Wholly and of M. Bahtiarian. Although the state has noise standards, very little of the information demonstrates a historic application to wind turbines, which create a noise previously un-addressed in Connecticut, especially as related to low frequency sound, or infrasound.

Siting Standards, Regulations. As noted in the course of these proceedings, the Siting Council has had no pre-existing standards related to the siting of wind turbine generators in Connecticut. The Council is empowered to develop such regulations, C.G.S. § 50t(a) & (b), and should consider this option as a possible ruling for this petition. Considerable testimony and evidence has been presented especially as to setback requirements for these facilities and the impact of the turbines on abutting neighbors. Therefore establishing regulations for the siting of wind turbines in Connecticut would serve the future needs of the state.

Health Impacts, Medical Needs. BNE's principal representative in this proceeding, Mr. Paul Corey, testified that BNE did not include a medical or "health expert" amongst his supporting experts. Clearly Mr. and Mrs. Mow have a particular need for the consideration of the impacts of the wind turbines upon the condition of their 8-year old son, Daniel, who has the medical condition, benign paroxysmal vertigo. That BNE would not consider that such large-scale machines — operating around the clock, all year, in neighborhoods where young people will be playing outdoors — would have an impact on <u>some</u> person during the course of the existence of the facility, if it were approved, in terms of medical issues, is an inexcusable oversight.

Certainly Daniel's needs are immediate, and should be considered by the Council in this petition. But if not Daniel, over the course of the life span of this proposed facility other persons would likely need to have medical issues addressed, or at least considered. BNE's failure to have any information related to the health, physical and medical impacts of their proposed facility is an inexcusable flaw in the petition.

<u>Summary</u>. In sum, Robin L. Hirtle, Kristin Mow and Benjamin Mow respectfully request that the Siting Council deny this petition and recognize the positive benefits that will ensue from **not** granting the petition.

Respectfully Submitted,

ROBIN L. HIRTLE,

RRISTAN M. MOW and BENJAMIN C. MOW

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CERTIFICATION

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Commissioner of the Superior Court