



Daniel F. Caruso Chairman March 1, 2011 Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

Carrie L. Larson Pullman & Comley, LLC 90 State House Square Hartford, CT 06103

RE: **PETITION NO. 980** - 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.

Dear Attorney Larson:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than March 8, 2011.

Please forward an original and 15 copies to this office and a .pdf copy. In accordance with the State Solid Waste Management Plan, the Council is requesting that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators. Fewer copies of bulk material may be provided as appropriate.

Yours very truly,

Linda Roberts
Executive Director

c: Paul Corey, Chairman, BNE Energy Inc. Council Members Parties and Intervenors







CONNECTICUT SITING COUNCIL

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Pre-Hearing Interrogatories Petition 980 - Prospect BNE Energy Inc. March 1, 2011 Set Four

- 36. The Petition states that the proposed project would comply with Connecticut Department of Environmental Protection air and water quality standards. Please specifically state what air and water quality standards BNE would comply with for the proposed project.
- 37. What state and/or local permits are required for the proposed project?
- 38. Regarding the Mechanical Loads Analysis, why is the ground elevation data for each turbine different from the elevation data presented in the Petition? Which information is correct? How does this affect the conclusions of the Mechanical Loads Analysis?
- 39. In determining compliance with DEP Noise standards, how is the emitter type determined? How is a "utility" defined by the DEP?
- 40. Would the sound made by the proposed wind towers be subject to aerodynamic modulation because of the shear caused by the hilly terrain?
- 41. Is the Individual Risk referred to in Section 5.3 of the ice throw analysis, based on icing conditions occurring eight days per year with no mitigation efforts in place?
- 42. What is generally regarded as an acceptable risk or chance of occurrence (in a percentage) for ice being thrown beyond the boundary of the host property? Is this percentage based on a guideline? If so, please specify the guideline. At what point does the risk level become unacceptable?
- 43. Please explain how the risk level along the vertical axis of Figure 5-3 of the ice throw study correlates with the throw and drop ranges shown in Table 5-1. In other words, what is the percentage impact probability of each risk level?
- 44. In reference to Section 5.2, icing conditions are generally described as occurring under "appropriate conditions of temperature and humidity." Please provide specific examples of meteorological conditions under which icing could occur (e.g., freezing rain, wet snow followed by rapid cooling).
- 45. What is the GE recommended residence setback distance (radius, in feet) for icing conditions and for blade throw. Provide the actual values.
- 46. Does the site meet GE's recommended setbacks for ice throws assuming an 82.5 meter rotor? Does the site meet GE's recommended setbacks for ice throws assuming a 100 meter rotor? Did BNE submit any safety analysis concerning ice throws to GE?

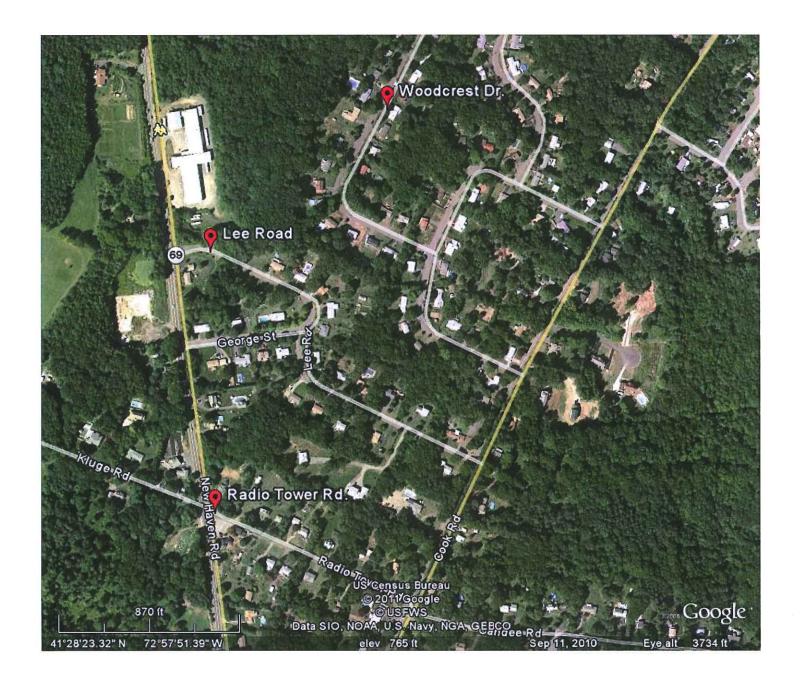


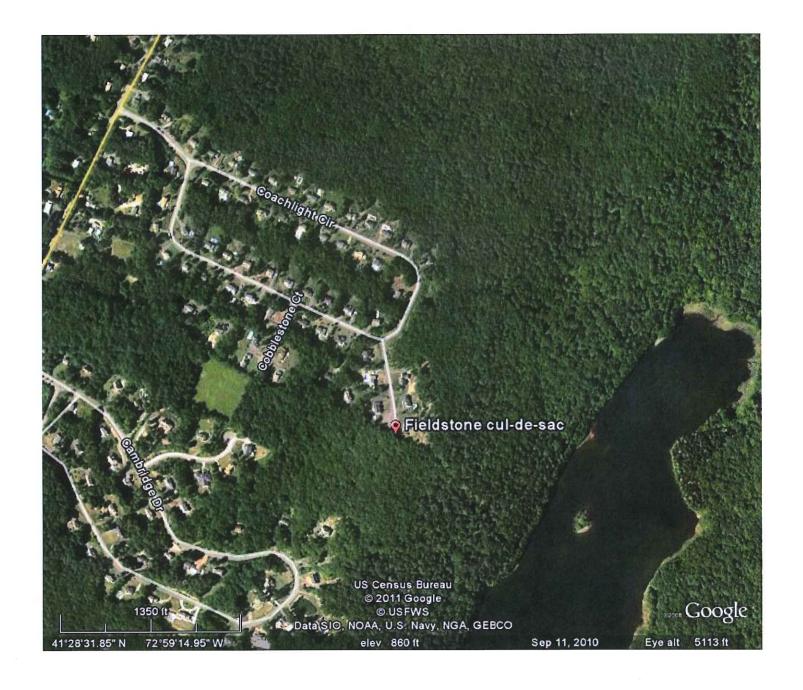
- 47. What is the step-by-step procedure that BNE would follow in the event of potential turbine blade icing? Please include techniques that would be employed to remove ice from the turbine blades.
- 48. If the proposed turbines are shut down during icing conditions, how is it determined when they should be restarted?
- 49. Revise the ice throw analysis to include historical meteorological data for the subject area indicating icing events (at least 25 years). Please include the following additional information within the revised analysis for the 82.5 and 100 meter rotor diameters:
 - a. probability of ice (0.5 kg and 1.0 kg) striking a residence within 275 meters of the turbines using the area of the roof and siding within the calculation rather than a square meter
 - b. probability of ice (0.5 kg and 1.0 kg) striking each off-site parcel within 275 meters, or any portion thereof, using the area of the affected parcel within the calculation.
- 50. Provide photo-simulations of the proposed turbines, similar to the ones provided in Petition Exhibit J, in areas of year-round visibility, including but not limited to the locations marked on the attached map.
- 51. Would the proposed turbines be visible from Lee Road extending from George Street to Route 69 (generally), or from the George Road and Route 69 intersection area? If so, why were these areas omitted from the visibility analysis?
- 52. Provide a visibility diagram showing the percent of the turbines, including blades, that would be visible within a 1 mile radius of the proposed turbines. Use 100%, 75%, 50%, 25%, and 10% shading. Provide for both the 100 meter and the 82.5 meter rotor diameters. Provide this information at a 1"≈500' scale and use multiple pages if necessary. Include the acreage of each shading designation.
- 53. Resubmit Petition Exhibit J, Figure 3 to include visibility of the turbines, including blades, at the 82.5 meter and 100 meter rotor diameters.
- 54. Provide the shadow flicker map (originally provided in response to Council interrogatory #35(a) at a scale of 1"≈750'.
- 55. For those homes that may be exposed to shadow flicker at 30 hours per year or greater, provide a shadow flicker assessment that includes an analysis of actual conditions (window orientation, sunshine probability, wind probability, etc.)
- 56. How do the following properties contained within the Shadow Flicker Report Probable Case Table 3 correspond to the Shadow Flicker diagram prepared for Council interrogatory #35(a)?

		<u>Table</u>	<u>Diagram</u>
DG	207 N H. Rd- 3	3 hrs	> 40 hrs (part of building)
BL	198 N H Rd.	0	> 40 hrs
A	1 George St.	0	20-30 building
X	255 NH Rd	0	20-30 and 30-40 in front of building
JN	9 Cambridge Dr.	0	<10 building

- 57. Please provide a brief overview of site restoration following completion of the proposed project, including what features will be permanently disturbed.
- 58. Volume 3, Tab N of the petition discusses the difference between Class III and Class II turbines and the need for further analysis in choosing a turbine type. Would a Class II turbine meet greater wind loads than a Class III turbine? What analysis was performed between April and November 2010 to determine the turbine type that is proposed? What that when the Mechanical Loads Assessment was done?
- 59. When was the GE 1.6-82.5 turbine reclassified from a Class III (as stated in Volume 3, Tab N of the Petition) to a Class II (as stated in BNE's response to Council interrogatory 2) turbine.
- 60. Most analyses submitted refer to the GE 1.6-82.5 turbine, when was the GE 1.6-100 turbine studied? Is it part of the GE 1.6-82.5 "family" of turbines? Please explain the reason for the statement at the end of BNE's response to Council interrogatory 2 that "it is unlikely that GE's 1.6-100 Class III turbine would be suitable for this Site."
- 61. How does the cut-in speed of a GE 1.6-82.5 compare with the cut-in speed of a GE 1.6-100? Provide all information shown in Table 1 of Tab N, Volume 3 of the petition for the GE 1.6-100.
- 62. BNE's response to Save Prospect interrogatory 19 discusses safety and reliability statistics of the GE 1.5 series. Do you have the same information for the GE 1.6 series?
- 63. What is the diameter of the base of the tower? What is the diameter of the tower structure just below the nacelle?
- 64. Referring to BNE's response to Save Prospect interrogatory 41, please explain what type of intermittence would trigger protection and/or a transfer trip, and provide an example.
- 65. Referring to BNE's response to Save Prospect interrogatory 58, please provide any relevant data from 2009 and/or 2010.
- 66. Does the ground detectors used in the bat analysis in the petition provide a reliable count to be used in the estimation of the number of bats that would die from the construction and operation of the wind turbines? Would elevated bat detectors provide more accurate information for the analysis?
- 67. In the pre-filed testimony of Thomas Wholley on page 1, he states that he has worked on air quality and noise permitting for various turbines in multiple states. Is any of this permitting experience with wind turbines? What type of turbines is this experience related to? How are the computer data centers referred to in the second to last sentence of Question 2 of this document, related to electricity generation?
- 68. What is the cost per foot for each foot the electric line would extend to the interconnection point? Would the cost per foot increase if the electric line had to extend over a greater distance from the turbines to the interconnection point?
- 69. What additional electrical equipment would be required to extend the distance between the turbines and the electrical interconnection?

- 70. If the proposed turbines were moved farther into the property, at a lower elevation, would the turbines have to be taller to achieve the same generation efficiency? If so, how much taller?
- 71. Is the Connecticut Water Company property adjacent to the site designated as Class I, Class II or Class III? If it is Class III, what is the feasibility of moving the proposed turbines onto that property?





Date: February 18, 2011

LIST OF PARTIES AND INTERVENORS $\underline{\text{SERVICE LIST}}$

Status Granted Document Service		Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	U.S. Mail	BNE Energy, Inc.	Carrie L. Larson, Esq. Pullman & Comley, LLC 90 State House Square Hartford, CT 06103-3702 (860) 424-4312 (860) 424-4370 fax clarson@pullcom.com Paul Corey, Chairman BNE Energy Inc. Town Center, Suite 200 29 South Main Street West Hartford, CT 06107 (860) 561-5101 (888) 891-6450 fax pcorey@bneenergy.com
Party (granted on 01/06/11)	⊠ U.S. Mail	Town of Prospect	The Honorable Robert J. Chatfield Mayor Prospect Town Office Building 36 Center Street Prospect, CT 06712-1699 (203) 758-4461 Town.of.prspct.@sbcglobal.net
Party (granted on 01/06/11) Party (granted 02/08/2011)	☑ U.S. Mail☑ E-Mail	FairwindCT, Inc. P.O. Box 225 Colebrook, CT 06021 (860) 379-6425 info@fairwindct.com	Jeffrey J. Tinley, Esq. Anthony J. Interlandi, Esq. Tinley, Nastri, Renehan & Dost, LLP 60 North Main Street Waterbury, CT 06702 (203) 596-9030 (203) 596-9036 fax jtinley@tnrdlaw.com noisyprospect@comcast.net Nicholas J. Harding Emily A. Gianquinto Reid and Riege, P.C. One Financial Plaza, 21st Floor Hartford, CT 06103 (860) 240-1011 (860) 240-1025
			nharding@rrlawpc.com egianquinto@rrlawpc.com

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Status Granted Document Service		Status Holder (name, address & phone number)	Representative (name, address & phone number)
Party (granted on 01/20/11)	⊠ E-Mail	John and Cheryl Lamontagne 225 New Haven Road Prospect, CT 06712 (203) 509-4158 John.lamontagneconstco.com Thomas and Eileen Satkunas 232 New Haven Road Prospect, CT 06712 (203) 592-1344 Tom.satkunas@snet.net	Thomas J. Donohue, Jr., Esq. Killian & Donohue, LLC 363 Main Street Hartford, CT 06106 (860) 560-1977 (860) 249-6638 tj@kdjlaw.com
Party (if granted on 02/24/11)	☑ U.S. Mail	Connecticut Water Company	Andrew W. Lord, Esq. Murtha Cullina LLP CityPlace I – 185 Asylum Street Hartford, CT 06103-(860) 240-6000 alord@murthalaw.com Cindy Gaudino Manager Source Protection & Real Estate Connecticut Water Company 93 West Main Street Clinton, CT 06413 (800) 428-3985

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	Document	Status Holder	Representative
Status Granted	Service	(name, address & phone number)	(name, address & phone number)
Intervenor (granted on 01/20/11)	⊠ E-Mail	The Connecticut Light and Power Company	John R. Morissette Manager – Transmission Siting and Permitting Northeast Utilities Service Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-2036 (860) 665-6933 fax morisjr@nu.com
	⊠ E-Mail		Christopher R. Bernard Manager, Regulatory Policy (Transmission) The Connecticut Light and Power Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-5967 (860) 665-3314 fax bernacr@nu.com
	⊠ E Mail		Joaquina Borges King Senior Counsel Northeast Utilities Service Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-3678 (860) 665-5504 fax borgej@nu.com
Intervenor (if granted on 02/24/11)	⊠ U.S. Mail	Eric Bibler 31 Old Hyde Road Weston, CT 06883 (203) 454-7850 (203) 246-2997 – cell ebibler@gmail.com	