

**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

March 8, 2011

**FAIRWINDCT, INC.’S SECOND SET OF INTERROGATORIES
TO BNE ENERGY INC.**

FairwindCT, Inc. (“FairwindCT”) requests that the petitioner, BNE Energy Inc. (“BNE”) respond to the following interrogatories:

1. Please provide copies of any documents related to your Scoping Meeting with CL&P.
2. Please provide copies of any documents related to your Application Request and Application Review with CL&P.
3. Has the Feasibility Study with CL&P been completed? If so, please provide a copy of that study. If not, when do you expect it to be completed?
4. Has the System Impact Study with CL&P been completed? If so, please provide a copy of that study. If not, when do you expect it to be completed?
5. Has the Transmission Study with CL&P been completed? If so, please provide a copy of that study. If not, when do you expect it to be completed?
6. Has the final report on bat acoustic studies been completed? If so, please provide a copy. If not, when do you expect it to be completed?
7. Please provide a shadow flicker analysis that analyzes the cumulative effects of both Wind Colebrook South and Wind Colebrook North on “receptors” in the surrounding area.

8. Please provide a noise evaluation that analyzes the cumulative effects of both Wind Colebrook South and Wind Colebrook North on noise levels in the surrounding area.

9. Do you plan to revise any of the site plans provided with your petition? If so, please provide a copy.

10. If you plan to revise site plans but have not yet completed those plans, please describe the anticipated revisions.

11. Have you offered to compensate any abutting property owners for the risk that your turbines may fall onto their property? If so, please provide the property owners' names and addresses and state when the offer was made.

12. In Exhibit B to your petition, dated September 30, 2010, your consultant VHB states that it "reviewed historic and cultural resources" and determined that no "historic resources listed or eligible for listing on the National Register of Historic Places, or Archeological Sensitive Areas [exist] at or within 1.5-mile of the proposed wind turbines." Please describe the "review" done by VHB that resulted in that erroneous conclusion.

13. Please provide AUTOCAD dwg files for all site plans included in the petition.

14. Please provide a list of all property lines, residences and related structures, roads, driveways, located within 984 feet of each proposed turbine location.

15. Please provide a list of all property lines and residences located within 0.5 mile of each proposed turbine location.

16. Please provide a list of all property lines and residences located within 1 mile of each proposed turbine location.

17. Please provide a list of all property lines and residences located within 1.25 miles of each proposed turbine location.

18. Please provide a list of all property lines and residences located within 1.5 miles of each proposed turbine location.

19. Please provide a copy of the noise emission characteristics of the GE 1.6 MW turbines you reference in your responses to the Council's first set of interrogatories.

20. Please provide a copy of any other GE materials relevant to the proper siting of its 1.6 MW turbines, guidelines and policies, including but not limited to materials regarding ice and blade throw, fire safety, noise, wildlife impacts, fall zones and proper siting to avoid turbulence.

21. Please provide GPS coordinates of each noise monitoring location identified in your Noise Evaluation.

22. If your consultant monitored noise at any other location, please provide GPS coordinates of each additional location and provide the data collected.

23. As we heard on March 3, 2011 during the Evidentiary Hearing before the Connecticut Siting Council in Petition 980, GE may have performed more than one Mechanical Loads Assessment ("MLA") for siting the turbines in the petition. Please provide a copy of any MLA performed by GE with respect to this site.

24. Please provide the name(s) of GE personnel with whom you have been in contact in the course of preparing the instant petition, including, but not limited to, the author of any MLA prepared by GE.

25. Please identify the expected production time for turbines once a contract is signed.

26. Please provide a copy of any contract or agreement between you and GE that requires that you maintain the confidentiality of certain information produced or owned by GE

that you have filed under seal in Petition 980. (In the alternative, provide the portion of any such contract or agreement containing those provisions.)

27. In Exhibit L to your petition, "Breeding Bird Surveys for the Colebrook Wind Resource Area Litchfield County, Connecticut," Western EcoSystems Technology, Inc. ("WEST") reports results of summer breeding bird surveys and incidental wildlife observations at the Colebrook Wind Resource Area ("CWRA") (the "Bird Survey"). In the Bird Survey, were the breeding bird survey points located in the vicinity of the proposed turbines in a manner that would adequately collect data to analyze breeding bird use within 500 meters in all directions of each proposed turbine location?

28. In the Bird Survey, how many survey points were located within 100m and 500m in all directions, of the southernmost turbine?

29. Why was breeding bird data collected at only 12 points?

30. Why were no bird surveys conducted from late May to mid June?

31. Why were no data collected on spring and fall migratory bird use?

32. Please describe the impact of the "unidentified passerine" observations on reported species richness and species diversity (Exhibit L).

33. Please provide the times, and field conditions (temperature, precipitation, visibility) for each of the 12 observation points each day that field data on bird use were collected.

34. What is the likelihood that all of the unidentified passerine observations in the Bird Survey were of a single species?

35. Which data points were situated to capture bird use in the open water/emergent wetland habitats?

36. Why were no nocturnal or callback surveys conducted for Northern Saw-whet Owl (*Aegolius acadicus*), Sharp-shinned Hawk (*Accipiter striatus*), Northern Goshawk (*Accipiter gentilis*) or American Bittern (*Botaurus lentiginosus*)?

37. The Bird Survey states that no state-listed species were observed during the survey. However, the Broad-winged Hawk (*Buteo platypterus*), a state-listed species of special concern was observed on the site according to Table 4. Please provide details on site use by this species as well as an analysis of the potential impacts the proposed wind development might have on Broad-winged Hawk.

38. It is stated in both the executive summary as well as the discussion section of the Bird Survey: "*The results of the surveys were characteristic of forested and open grassland areas of central Connecticut*". However, the subject site is not located in central Connecticut but rather the northwest highlands (a.k.a. Litchfield Highlands). Please provide a regionally-relevant assessment of the survey results.

39. Please quantify (in acres) and illustrate on an aerial photograph the direct forested habitat loss as well as the potential indirect habitat loss (through behavioral avoidance and habitat fragmentation) at each turbine location as discussed in the executive summary of the Bird Survey.

40. Please provide the professional experience of Vanasse Hangen Brustlin, Inc. ("VHB") field personnel in conducting habitat assessments for forest-roosting bats.

41. Please state the number and species diversity of any snags identified by VHB personnel during the Vegetation Assessment.

42. Please describe the specific methodology employed by VHB to document "the occurrence of burrows, tree cavities, snags, and vernal pools" as stated in the Terrestrial Wildlife Habitat & Wetland Impact Analysis (Exhibit I, pg 4).

43. Please provide the education and experience in conducting bat acoustic surveys and call analysis for all members of the WEST field team in Connecticut.

44. Please explain the justification for excluding the possibility that eastern small-footed myotis could occupy the CWRA project site (Exhibit K).

45. Please explain how the 96.2% acoustic sampling rate was calculated (Exhibit K, pg. 7).

46. Please describe the specific calibration methods and sensitivity settings used by WEST on the CA1 and CA2 detector systems (Exhibit K).

47. Please describe the specific calibration methods used by WEST to determine the relative sensitivity of the CA1 and CA2 detector systems.

48. Please identify what calibration methods were used by WEST to confirm the proper functioning of the CA2 detector system at the beginning and end of the acoustic monitoring survey period.

49. Please compare the effective range limit of the bat detector system used by WEST in comparison to the nacelle height of the proposed wind turbines.

50. Please describe the temporal pattern of bat activity at the CA2 detector (independently of the CA1 detector).

51. Please identify how the CA1 and CA2 sampling sites were chosen.

52. Please identify the state or federal sampling guideline that was used to develop the sampling protocol at the CWRA project site (Exhibit K).

53. Does the acoustic sampling protocol used at the CWRA project site meet the temporal, spatial, or vertical sampling criteria identified by the Wind Siting Guidelines of the Pennsylvania Game Commission (Exhibit K)?

54. Does the acoustic sampling protocol used at the CWRA project site meet the temporal, spatial, or vertical sampling criteria identified by the pre-construction monitoring guidelines of the New York Department of Environmental Conservation (Exhibit K)?

55. Does the acoustic sampling protocol used at the CWRA project site meet the temporal, spatial, or vertical sampling criteria identified by the pre-construction monitoring guidelines for Tier 4 wind projects of the New Jersey Department of Environmental Protection (Exhibit K)?

56. Please explain why red bats were limited to the MF call group (30kHz - 40kHz) when WEST states in their report that "eastern red bats typically emit calls with minimum frequencies between 30 and 43 kHz (J. Szewczak, pers. comm.)" (Exhibit K, pg. 7).

57. In the Interim Report Discussion, WEST states that some of the HF call activity may have been due to little brown myotis, a species they categorize as an MF species. If both MF species are also HF species, what value is the MF call group?

58. Given that 3,004 calls were from the MF bat group, and given that only two species are in the MF bat group (little brown myotis and eastern red bat), and given that WEST only identified 5 calls from the eastern red bat, is it the opinion of WEST that 2,999 calls were from little brown myotis?

59. In the Discussion, WEST states that "the majority of MF activity during the study period was comprised of little brown bats" (Exhibit K, pg. 13). Please justify this statement.

60. Given that WEST's species-specific analysis only identified 0.1% of the MF bat calls and 0.2% of the LF bat calls, do you feel the conclusions made regarding eastern red bat and hoary bat activity at the CWRA project site are indicative of the overall activity of these species?

61. Was there a meteorological tower at the CWRA project site throughout the entire acoustic monitoring survey period? If yes, please explain why ground microphone systems were used to monitor bat activity when there was a meteorological tower on site that could have sampled within the rotor swept area.

62. Please explain how up to 95% of the bat activity is attributed to little brown myotis and big brown bats despite WEST's conclusion that "the CWRA is not in the vicinity of any known bat colonies" (Exhibit K, pg. 13).

63. Are upland sites with perennial streams and water habitat are critical roost habitat for bat species?

64. Are hydric habitats (including wetlands) a landscape-level feature that consistently associated with high levels of bat activity?

65. Are permanent water sources and wetland habitats used as foraging and/or roosting habitat by bats?

66. Please summarize the effort that was conducted to reach the conclusion that the "CWRA is not in the vicinity of any known bat colonies or features likely to attract large numbers of bats" (Exhibit K, pg. 13).

67. Please justify your conclusion that the CWRA is not in the vicinity of any features likely to attract large numbers of bats given the large beaver pond and multiple forested wetlands at the project site.

68. Given that the vast majority of bat mortality occurs during the fall migratory period, please explain how one can conclude the likely level of impact without providing data on the bat activity during the fall migratory period.

69. Given that the objective of the acoustic monitoring survey was to "characterize seasonal and spatial activity by bats within the CWRA during the maternity season", please justify why only one of the four habitat types identified by VHB at the Colebrook South project site was surveyed for bat activity

70. Given that the objective of the acoustic monitoring survey was to "characterize seasonal and spatial activity by bats within the CWRA during the maternity season", please explain why the survey missed over half of the maternity season.

71. Please explain why no acoustic monitoring was conducted by WEST in the southern half of the Colebrook South project area.

72. What are the terms and conditions of the Conservation Easement (Vol 53, P. 870) west of Pole 915 on Flagg Hill Road?

73. What is the significance of the long dash and two short dash line running roughly parallel to, and 300-400' west of, Flagg Hill Road on Sheet C-001 (Exhibit F)?

74. What is the source of the site topography shown on the plans (Exhibit F)? What is the level of accuracy and precision? If it was not field-surveyed, was any ground-truthing done? If so, where, and how much?

75. What is the source of the wetland boundary locations shown on the plans (Exhibit F)? What is the level of accuracy and precision?

76. Did VHB do any growing season wildlife surveys? If so, please provide the dates, weather conditions, visibility, time spent on-site on that particular task, and the qualifications of the personnel.

77. Please describe how the field investigator was able to determine on January 29, 2010 (with 2"-6" of snow) that Wetland 1 did not contain any areas that are irregularly or seasonally flooded, or that no vernal pools were present (Exhibit I)?

78. Please describe how the field investigator was able to determine on January 29, 2010 (with 2"-6" of snow) that Wetland 2, described as a seasonally saturated depression whose interior was generally devoid of woody vegetation, did not contain any areas that are irregularly or seasonally flooded, or that it did not contain a vernal pool (Exhibit I)?

79. Please describe how the field investigator was able to determine on March 16, 2010 (with up to 3" of snow) that Wetland 4, described as a seasonally saturated depression did not contain any areas that are irregularly or seasonally flooded, or that it did not contain a vernal pool (Exhibit I)?

80. Please describe the relevance of mid summer vernal pool surveys in general, and particularly during a hot, dry late spring and summer (Exhibit I).

81. How do you explain the absence of vegetation in the interior of Wetland 2?

82. How was the 3.5 acre hilltop meadow created? How frequently has it been mowed? Has it been seeded and if so, how?

83. Please explain the discrepancy between the description of the cleared area in the Vegetation Assessment (Exhibit I, p.3) and the rationale for selecting Forbs (Exhibit I, p.9) to assess the wildlife potential for this area?

84. Please explain the conflict between the characterization of the outlet stream from the Beaver Pond as perennial (Exhibit I, p 8) and intermittent (Exhibit I, p11). If the outlet is actually perennial or nearly so, how would that affect VHB's conclusions with respect to amphibians and fish likely to use the site.

85. Please provide a reference or other source for the statement that the beaver pond is likely to be too deep for salamanders (Exhibit I, p. 11)

86. Given the presence of successional forest and early old field/meadow habitat (Exhibit I, p. 4) and the DEP's confirmation of the state-listed Smooth Green Snake nearby, why were no detailed surveys performed for this species?

87. Given the description of Northern Spring Salamander habitat in one of your primary reference documents (Klemens 1993) and the presence of a perennial watercourse, wetlands dominated by hemlock and springs, why was that species omitted from the discussion of Salamanders (Exhibit I, p. 11) and the list in Table 1 (Exhibit I, p. 13)?

88. Will the site development have adverse impacts on forest-interior birds and other disturbance-sensitive species that are/likely to be present within the 500m zone of influence of any of the turbines? If so, which species and if not, why not?

89. What will be the impact of low frequency noise generated by the turbines on wildlife using the site and adjacent areas?

90. Does any portion of the area proposed to be disturbed drain to Beckley Bog and Beckley Pond.

91. Please provide an analysis of the functions and values for Wetland 1 as a whole?

92. Please explain the assessment of the upper portion of Wetland 1 as not providing flood flow alteration functions at the principal or secondary level, in light of the well-documented significant influence of headwater wetlands on downstream hydrology.

93. Given the gently sloping to level terrain, headwater position, permanently ponded area, please explain VHB's position (Exhibit I, p.21) that Wetland 1 does not provide principal or secondary level functions for groundwater recharge or discharge?

94. Please explain the discrepancy between the description of Wetland 1 as having emergent marsh and open water (Exhibit I, p. 7) and the statement that it is not associated with open water and therefore does not provide sediment or shoreline stabilization functions or protect water quality (Exhibit I, p. 21)

95. Given the presence of streambanks and wet meadows which are suitable for the state-listed species Great St. John's Wort and its known presence in a nearby wetland east of the site, why were no detailed on-site surveys completed for this species?

96. Why are several species identified in the DeGraff and Yamasaki matrices as utilizing the three habitat types used by VHB in their analysis, not reported in Table 1 (Exhibit I)?

97. Please explain the discrepancy between the Habitat Type Map (Exhibit I, Figure 2), which maps a significant area of scrub-shrub emergent wetland and the wildlife evaluation, which considered this entire area to be a pond.

98. How would the inclusion of this habitat type have changed the results reported in VHB's Table 1 (Exhibit I)?

99. Please explain the discrepancy between the Habitat Type Map (Exhibit I, Figure 2), and vegetation assessment (Exhibit I, p.4) which both identify forested wetlands at the site, and the wildlife evaluation, which considered the entire forested area to be northern hardwoods?
100. How would the inclusion of this habitat type have changed the results reported in VHB's Table 1 (Exhibit I)?
101. What many square feet of wetlands or watercourses will be indirectly affected?
102. How were the wetland flags placed in the field by VHB located and transferred to the plans (Exhibit F)? What is the level of accuracy?
103. Do all of the plans conform to A-2 and T-2 standards (Exhibit F)? If not, which ones do not?
104. How will the slash and stumps from clearing 11+ acres of trees be handled? Will stumps be buried on-site? If chipped, where is the stockpile area and how much volume will be generated?
105. Where is the dewatering wastewater treatment detail?
106. Where are the soil stockpile areas for all three turbines/blade assembly/crane assembly areas and the access road construction?
107. How much earthwork (total volume of cut and fill) is required to execute the plans?
108. Is the total earthwork balanced, or will there be a net import or export of earth materials?
109. How much specialized earth material (bank-run gravel, process gravel, rip-rap, etc.) will be required, in terms of yardage and truck trips?

110. What is the total volume of topsoil proposed to be stockpiled for use in site restoration? Where will it be stockpiled? Will any be exported from the site?

111. Why is no grading shown for the entire downslope blade at each assembly area?

112. What is the distance between the limit of grading for the tower laydown area for the southern turbine and the nearest property line? If the 1:1 cut and fill slopes upgradient of this area are ultimately determined not to be feasible, will off-site grading be required? If so, have grading rights been obtained? If they are not available, how will this affect the plans?

113. Please explain the conflict between the temporary seeding proposed to stabilize these side slopes and the limitation of vegetative stabilization.

114. Please explain the conflict between Construction Schedule Note 9 on Sheet C-200 (exhibit F) and the grading shown for each of the tower and blade assembly areas, and the road side slopes.

115. Where are the discharge points from the temporary diversions shown on Sheet C-201 (Exhibit F), what is the drainage area for each of the discharge points and what measures will be used for sediment control and stabilization at these outlets?

116. Please explain the discrepancy between the use of 1:1 slopes and the specified erosion control and stabilization measure of temporary seeding on Sheets C-201, C-202, and C-203 (Exhibit F).

117. What is the drainage area that discharges to the culvert at Sta. 15 + 50, Sheet C-202 (Exhibit F)? How will sediment be removed and how will the downslope blade assembly area be protected from erosion?

118. What is the drainage area flowing to the temporary diversion downslope of the culvert @ Sta 15 + 50 on Sheet C- 202 (Exhibit F), including the area that drains to the culvert?

119. Please explain the discrepancy between the design of the silt fences around all of the blade laydown/assembly areas and the requirements of the CT Erosion and Sediment Control Manual.

120. How will run-on from upslope areas, groundwater seepage and slumping be controlled on the cut slopes above the blade laydown and tower laydown areas on Sheets C-202 and 203 (Exhibit F)? If it is to be intercepted and diverted, where are those facilities on the plan, where will the discharge points be, what is the total area that drains to each of the discharge points, how will they be stabilized, what erosion control measures will be required, and how will the grading accommodate these features?

121. How will the discharge from the temporary diversion ditch be conveyed down the slope @ Station 1+ 75 of the access road, to the roadside ditch?

122. Why doesn't the erosion control barrier downslope of the access road Station 1+00 and 5+00 conform to the requirements of the Erosion Control Manual?

123. Why doesn't the stabilization of the slopes for the Tower assembly area on Sheet C-201 (Exhibit F) conform to the requirements of the Erosion Control Manual.

124. Why is no grading shown for southwestern leg of the blade assembly area on Sheet C-201 (Exhibit F)? Why doesn't this grading conform to the requirement that the blade assembly area be graded flat to within 6" shown on the plans? If the blade is allowed to "hang over", what supports will be needed and how will they be constructed, given the 18' grade differential?

125. Please provide site plans (including grading, erosion control, access, utilities, sanitary facilities) for the support building. How much site disturbance will be required to make

this facility operational? Was this included in the area of disturbance calculations? If yes, please show where these facilities will be located.

126. Please explain the discrepancy between the proposed grading for the blade assembly areas, crane assembly area, crane pads, and tower assembly areas, the Erosion control plan notes, which do not permit slopes steeper than 2:1 without a plan designed and sealed by a geo-technical engineer, and the CT Sediment and Erosion Control Manual?

127. How will the side slopes and bottom of the temporary roadside ditches be stabilized? What runoff velocities will occur for the 10 yr through 100 year storms and how will the ditch bottom and sides be stabilized? Please provide calculations showing that the ditches will be stable and have adequate capacity to pass the design storm.

128. What measures are included in the design to control seepage and stabilize cut slopes in areas with a hardpan, or where seasonal high groundwater is likely to be encountered?

129. Why is there a discrepancy between the Erosion Control narrative and the plans with respect to stabilization of slopes steeper than 2:1?

130. Please explain the discrepancy between grading shown west of the access road in the vicinity of Stations 8 and 9 and the CT Erosion and Sediment Control requirements for slope angle, height, and stabilization method?

131. Why is the widest point of the permanent access road located at the wetland crossing?

132. If additional topsoil is required in the wetland restoration area (per note 3, Sheet C-312 of Exhibit F), what effect will that have on wetland hydrology?

133. How will the success of the proposed restoration and enhancement areas be monitored and what plans are in effect to address any remedial measures that may be required? What will the success standards be for the restoration?

134. What financial assurances will be put in place to ensure that the proper erosion controls are installed and maintained, and that the site is restored as shown? If you propose bonding or other surety, what is the amount you propose?

135. Why is no mulching or erosion control blankets proposed to protect the newly seeded areas to be restored from erosion until a stabilizing cover can be developed?

136. Please provide calculations showing that the proposed wetland crossing detail on Sheet 503 (Exhibit F) is adequate to support the proposed loads required to deliver and assemble the turbine.

137. Please provide a plan and cross-sectional detail of the underground utility trench.

138. How much area will be cleared for the overhead electrical connection to Flag Hill Road? Was this included in the disturbed area calculations?

139. How much clearing will be required along Flag Hill Road to Rte. 44? Was this included in the disturbed area calculations?

140. Please provide calculations demonstrating the adequacy of the proposed temporary sediment basins.

141. Please provide calculations showing the adequacy of the soil stockpile area to accommodate the required soil volume.

142. Can you direct us to the detail for sediment control for dewatering wastewaters?

143. Do you have a permit under the Inland Wetlands and Watercourse Act CGS §§22a-36 to 22a-45(a) for Wind Colebrook South?

144. If the answer to the previous question is: no, do you intend to apply for one? If not, why not? If so from which authority?

145. If you intend to apply, when do you intend to do so?

146. If you have already received an Inland Wetlands and Watercourse Permit, please attach a copy of the permit.

By: 

Denise L. Myron
Nicholas J. Harding
Emily A. Gianquinto
Reid and Riege, P.C.
One Financial Plaza, 21st Floor
Hartford, CT 06103
Tel. (860) 278-1150
Fax. (860) 240-1002

CERTIFICATION

I hereby certify that a copy of the foregoing document was sent by U.S. mail and email to the following service list on the 8th day of March, 2011:

Carrie L. Larson
Paul Corey
Thomas D. McKeon
David M. Cusick
Richard T. Roznoy
David R. Lawrence and Jeannie Lemelin
Walter Zima

and a copy was emailed to:

John R. Morissette
Christopher R. Bernard
Joaquina Borges King


Denise L. Myron