

**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 30, 2011**

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

FairwindCT, Inc., Susan Wagner and Stella and Michael Somers (the “Grouped Parties”), request that the petitioner, BNE Energy Inc. (“BNE”) respond to the following interrogatories:

1. Was only one Mechanical Loads Assessment conducted for this site? If not, please provide copies of all Mechanical Loads Assessments conducted for this site.
2. Please provide dimensions for the 1.6-82.5 turbine, including width of the turbine tower, height, width and depth of the nacelle, and the width of the blades at the widest point.
3. Please provide dimensions for the 1.6-100 turbine, including width of the turbine tower, height, width and depth of the nacelle, and the width of the blades at the widest point.
4. You indicate that Michael Klemens be conducting an on-site study for the smooth green snake in your response to Question 86 of FairwindCT’s Second Set of Interrogatories, but Mr. Klemens’ prefiled testimony makes no reference to the smooth green snake. Will Michael Klemens be conducting an on-site study for the smooth green snake?
5. Please provide the approximate date on which the results of all of Michael Klemens’ on-site studies will be reported in final form.

6. Please provide the approximate date on which the results of the “additional acoustic bat study” being conducted by Western EcoSystems Technology, Inc. (“WEST”) will be reported in final form.

7. During this “additional acoustic bat study,” will the Anabat detectors be placed on the met tower?

8. Please provide the approximate date on which the results of the “migratory bird study” being conducted by WEST will be reported in final form.

9. In response to Question 46 in FairwindCT’s First Set of Interrogatories, you referred to a 13.4-month period of wind data collection and did not provide the information by days, as requested. Please provide the number of days on which wind speeds were lower than 3.5 m/s for the period 1/1/09 through 12/31/09 and 1/1/10 through 12/31/10.

10. Please provide the number of hours on which wind speeds were lower than 3.5 m/s for the period 1/1/09 through 12/31/09 and 1/1/10 through 12/31/10.

11. Have employees of Civil 1 or any other engineering firm worked on the site plans with Zapata? If so, please provide each engineer’s name and employer.

12. Question 50 of FairwindCT’s First Set of Interrogatories asked for a definition of “fall zone requirements.” Your lengthy response to that interrogatory did not answer the question. Again, please define the phrase “fall zone requirements.”

13. Please provide a list of all property lines, residences and related structures, roads, driveways, located within 898 feet of each proposed turbine location.

14. Question 26 of FairwindCT's Second Set of Interrogatories contained a typographical error. Please confirm that you have provided a copy of any contract or agreement that requires you to maintain confidentiality of certain information produced or owned by GE that you have filed under seal in Petition No. 983.

15. Does the confidentiality agreement between BNE and GE contain a provision excluding from protection information that has been put into the public domain through no fault of BNE?

16. In response to Question 28 of FairwindCT's Second Set of Interrogatories, you stated that at the time the "breeding bird survey" began in 2010, the location of the southernmost turbine on the site "was not being considered by BNE." You make a similar statement in response to Question 71 of FairwindCT's Second Set of Interrogatories. Please explain those statements and provide information on why and when the decision to add or change the turbine location was made.

17. Who will conduct the post-construction bird and bat fatality monitoring you propose to do?

18. Will the results of the post-construction bird and bat fatality monitoring you propose to do be made easily accessible to the general public and to local conservationists? Will the results be posted online?

19. In response to Question 37 of FairwindCT's Second Set of Interrogatories, you stated "To our knowledge only three broadwinged hawks have been documented as fatalities at 76 operating wind facilities in the US (WEST unpublished data)." Please provide copies of that unpublished data. If you refuse to do so, please provide the names, locations, turbine type and size and time of year for the wind facilities at which those three broadwinged hawks died.

20. In response to Questions 53, 54 and 55 of FairwindCT's Second Set of Interrogatories, you objected on the basis that this project need not comply with the pre-construction monitoring guidelines in place in Pennsylvania, New York and New Jersey. Please confirm that you did not consult out-of-state pre-construction monitoring guidelines, despite the absence of such guidelines in Connecticut.

21. Please confirm that the revised site plans, stormwater management plan and erosion and sediment control plan attached to Melvin Cline's prefiled testimony are the plans for which BNE is seeking the Council's approval.

22. If you are still seeking approval for the site plans, stormwater management plan and erosion and sediment control plan included in Exhibits F, G and H to the petition, please respond to Questions 111-124, 136-132, 135, 140-142 of FairwindCT's Second Set of Interrogatories based on the site plans in Exhibit F.

23. If you are no longer seeking approval for the site plans, stormwater management plan and erosion and sediment control plan included in Exhibits F, G and H, why have you not withdrawn those exhibits from your petition?

24. In response to Question 13 of the Council's Pre-Hearing Interrogatories, Set One, you stated that "BNE is following GE's recommended setbacks for wind turbines adjacent to uninhabited land to ensure that the rotor blades are entirely on BNE property." Does GE have different recommended setbacks for wind turbines adjacent to uninhabited property than it does for inhabited property? If so, please explain how the recommendations differ and how GE defines "uninhabited" and "inhabited."

25. Please provide GE's recommended setbacks for uninhabited land discussed in the preceding question and referenced in your response to the Council's interrogatories.

26. Question 25 in the Council's Pre-Hearing Interrogatories, Set One, asked you the "approximate distance that parts of the blades could be thrown from a turbine" and asked you to provide calculations regarding that distance. You did not provide that information in your lengthy response. Please do so.

27. Does the "final" bat report attached to the prefiled testimony of David Tidhar replace the "interim" bat report attached to the petition as Exhibit L? If so, why have you not withdrawn Exhibit L from your petition?

28. In Question 5 of Mr. Tidhar's prefiled testimony, he refers to "bat fatality patterns" observed during post-construction monitoring projects "[a]t operating commercial wind-energy facilities located within the region within similar forest dominated landscapes (e.g., Noble Ellenberg NY, Noble Clinton NY, Maple Ridge NY, Lempster NH, Stetson Mountain ME and Mars Hill ME)." For each of those six listed facilities, please provide the type, height and number of the turbines located on the site and please provide the approximate dates of the post-construction monitoring studies referenced.

29. Please provide the information regarding “the equipment used to transport the components to the erection location and their specific requirements for the road surface and the clearances required” and “the cranes used for the erection and installation process” reviewed by Melvin Cline and referenced in his prefiled testimony.

30. Please identify the “[c]onstruction companies with experience in the erection and installation of wind turbines” and “transportation engineering firms providing modeling assistance for blade transport vehicles” consulted by Mr. Cline or other BNE representatives, as referenced in Mr. Cline’s prefiled testimony, and please provide copies of the information provided by those companies and firms.

31. What studies or assessments have been conducted by BNE regarding the capacity of the local town roads, including Flagg Hill Road, to bear the weight of the loads associated with transporting and delivering the turbine components and all associated equipment, such as cranes?

32. Please provide computations showing the change in peak flows (rate, volume and velocity) from the culvert at STA 11 + 25 on the access drive, during the 2, 10, 25, 50 & 100 year storms.

33. Please provide computations showing the change in peak flows (rate, volume and velocity) at both sides of the access drive at Flagg Hill Road, during the 2, 10, 25, 50 & 100 year storms.

34. Please provide computations showing the change in peak flows (rate, volume and velocity) from the culvert at STA 21 + 50 on the access drive, during the 2, 10, 25, 50 & 100 year storms.

35. Please explain how the need for sanitary facilities and other utilities at the support building has been accommodated in the site plan.

36. Please reconcile the discrepancy between the statements in the petition that the site will be returned to its pre-construction state and the permanent changes shown on the post-construction grading and restoration plans.

37. Where will the surplus of cut material be accommodated at the site?

38. How will the initial roadway cut at Flagg Hill Road be constructed? Where will equipment operate? How will the existing road be protected?

39. Please provide a reasonable estimate of the area around the proposed tower, laydown and assembly areas that must be cleared and/or graded to allow for the construction activities (Sheet C-500).

40. Please indicate how the extent of the required construction and grading can be determined without a complete topographic survey and geotechnical analysis.

41. Where and how will the permanent bio-retention pond outlets be located? What is the approximate linear distance on the existing slopes until sheet flow becomes shallow concentrated flow? What will the velocities be at the outlets?

42. What is the width of the right of way that must be cleared and maintained to install the overhead electric lines from Flagg Hill Road to the collector yard? Please confirm that this was not accounted for in the disturbed area calculations.

43. What is the size of the drainage area west of the proposed wetland crossing? How do you know that the proposed French Mattress can pass storm flows from that drainage area without adversely affecting the hydro-period of the upgradient wetland?

44. Where are the weirs/outlet structures and energy dissipaters for the proposed sediment traps and bio-retention basins? What velocities will be experienced on the access road surface and in the roadside ditches? Is this calculated velocity based on any assumptions? If so, please state what those assumptions are and provide documentation that those assumptions are reasonably conservative. Are they stable under these conditions?

45. Which plan sheets show the grading, outlet controls and energy dissipation devices for the permanent stormwater basins?

46. What does the unlabelled, rectangular outline is shown on the plans upslope of the access road, Station 2 + 00, depict?

47. What criteria and design storm were used to design the permanent diversions shown on the plans? Please direct us to the calculations that demonstrate that the diversions meet the requirements of the 2002 Connecticut Guidelines for Erosion and Sediment Control.

48. Given the steeply sloping nature of the site and the lack of a topographic survey and geo-technical data, which BNE's engineers say prevents them from designing the bio-retention ponds, crane road, access road and wetland crossing, what assurances can BNE provide to the Council that the proposed wind development can be accommodated on the site? What contingency plans are in place in the event that they cannot be accommodated on the site with a plan that meets good engineering practice and all of the applicable DEP and CT standards?

49. Why do the roadside ditch check dams still fail to meet the design criteria of the 2002 Connecticut Guidelines for Erosion and Sediment Control?

50. Do the drainage computations account for reduced infiltration capacity of the crane road and access road due to compaction by heavy vehicle traffic?



51. Please provide a calculation to verify the 2.7% increase in impervious area.
52. If the runoff co-efficient only increases from 55 to 56 after construction, why are peak runoff attenuation practices (13 permanent basins) required?
53. Please explain how 36' of water will be accommodated in Basins 1-6 as per the Filter Bed Sizing table in Appendix D.
54. How much sand and special soil mixes will be required to construct the peak attenuation basins and water quality treatment basins? Has this volume of material been included in the calculations of the truck traffic required to complete construction?
55. Please explain the note "excludes segregated runoff" in the water quality volume tables in Appendix D of the revised Stormwater Management Plan attached to Melvin Cline's prefiled testimony.
56. The sizing calculations for the temporary sediment traps appear to be based on several assumptions. Please provide documentation as to the validity of the assumed design parameters.
57. The design calculations for the permanent diversions appear to be based on several assumptions. Please provide documentation as to the validity of the assumed design parameters.
58. Did Jeff Gruver personally conduct any component of the bat acoustic setup or call analysis at the Colebrook Wind Resource Area ("CWRA")?

59. Under the Tier 3 Section of the United States Fish and Wildlife draft wind turbine guidelines, *Bat Survey Methods* (pg 37) it states under Acoustic Monitoring that “[t]he Committee recommends placing acoustic detectors on existing met towers... Acoustic detectors should be placed at high positions (as high as practicable, based on tower height) on each met tower included in the sample to record bat activity at or near the rotor swept zone, the area of presumed greatest risk for bats.” Do the WEST biologists confirm the accuracy of this quote and agree with this statement?

60. Under Tier 3 Section of the United States Fish and Wildlife draft wind turbine guidelines, *Bat Survey Methods* (pg 37) it states under Acoustic Monitoring that “[d]evelopers should evaluate whether it would be cost effective to install detectors when met towers are first established on a site. Doing so might reduce the cost of installation later and might alleviate time delays to conduct such studies.” Do the WEST biologists confirm the accuracy of this quote and agree with this statement?

61. Under Tier 3 Section of the United States Fish and Wildlife draft wind turbine guidelines, *Bat Survey Methods* (pg 37) it states under Acoustic Monitoring that “the Committee recommends that additional sampling stations be established at low positions (~1.5 - 2 meters) at a sample of existing met towers and one or more mobile units (i.e., units that are moved to different locations throughout the study period) to increase coverage of the proposed project area.” Do the WEST biologists confirm the accuracy of this quote and agree with this statement?

62. Do the United States Fish and Wildlife draft wind turbine guidelines suggest anywhere that low position (“ground”) monitoring should be used instead of met tower monitoring? If so, please identify that language.

63. Do the United States Fish and Wildlife draft wind turbine guidelines suggest anywhere that low position (“ground”) monitoring using non-mobile sampling stations is effective or recommended? If so, please identify that language.

64. Mr. Tidhar states in his pre-filed testimony that the monitoring protocol conducted at Colebrook South was “in accordance with the United States Fish and Wildlife draft wind turbine guidelines, tiers one through three recommended assessments.” Please identify specific language in the USFWS Guidelines that supports this statement as it relates to WEST’s decision to use non-mobile low position (“ground”) monitoring.

65. In response to Question 43 of FairwindCT’s Second Set of Interrogatories, you stated that Jeff Gruver, who led West’s acoustic bat analysis, has completed at least 100 acoustic bat analyses for proposed and existing wind facilities. Of those 100 projects, how many included Anabat monitoring conducted on a met tower? Of those projects that included Anabat monitoring conducted on a met tower, how many resulted in damage to the meteorological equipment?

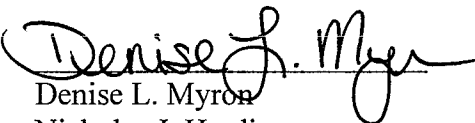
66. The figure used by WEST to identify the acoustic sampling points (Tidhar Pre-Filed Testimony, Exhibit 2, Figure 2) is of a scale and resolution that prevents useful identification of the sampling sites. Using the site map produced by VHB (Petition, Exhibit I, Figure 2), please identify the locations of CA1 and CS1 and state the distance between these two sampling points.

67. In response to Question 51 of FairwindCT's Second Set of Interrogatories, BNE states that the SM2Bat unit was placed at the edge of the beaver pond because "[o]pen water is considered a feature attractive to bats for foraging, and placement of the SM2Bat unit at this location increased potential for recording bat species that may occur in the Project area." Given this statement, why did WEST claim in its interim report (Petition, Exhibit L) that the "CWRA is not in the vicinity of any known bat colonies or features likely to attract large numbers of bats" (emphasis added)?

68. In response to Question 52 of FairwindCT's Second Set of Interrogatories, BNE lists the Cape Vincent Wind Project in New York as a site that used a similar acoustic monitoring protocol during the pre-construction site assessment. Please provide details of the sampling protocol at that site, including the timing of the survey, the sampling height of acoustic monitors, and the total sampling effort (in detector-nights).

69. Given that BNE claims that the data analysis approach used at the CWRA is similar to other monitoring projects conducted at wind development sites, please provide a citation for any acoustic monitoring project in the eastern United States that was not conducted by WEST and that uses the MF acoustic group.

70. Please provide the complete citation for "Brooks (2011)" referenced in response to Question 60 of FairwindCT's Second Set of Interrogatories.

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 delivered by first-class mail and e-mail to the following service list on the 30th 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  
Eva Villanova

and a copy was emailed to:

John R. Morissette  
Christopher R. Bernard  
Joaquina Borges King

  
Denise L. Myron