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 Winsted-Norfolk Road in Colebrook, Connecticut ("Wind Colebrook North")	**Petition No. 984**
	March 25, 2011

PETITIONER BNE ENERGY INC.'S INTERROGATORY RESPONSES
TO FAIRWINDCT, INC.'S SECOND SET OF INTERROGATORIES

Petitioner BNE Energy Inc. ("BNE") submits the following responses to the Second Set of Interrogatories issued by FairwindCT, Inc. dated March 8, 2011:

Q1. Please provide copies of any documents related to your Scoping Meeting with CL&P.

A1. BNE objects to this interrogatory because the requested documents are confidential. BNE further objects to this interrogatory because the information requested is irrelevant to this proceeding.

Q2. Please provide copies of any documents related to your Application Request and Application Review with CL&P.

A2. BNE objects to this interrogatory because the requested documents are confidential. BNE further objects to this interrogatory because the information requested is irrelevant to this proceeding.

Q3. 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?

A3. The Feasibility Study has not been fully completed. It is expected to be completed by early to mid 2011.

Q4. 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?

A4. The System Impact Study has not been completed. It is expected to be completed by mid 2011.

Q5. 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?

A5. The Transmission Study has not been completed. It is expected to be completed by mid 2011.

Q6. 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?

A6. The final bat acoustic study is attached to the pre-filed testimony of David Tidhar.

Q7. 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.

A7. BNE objects to this interrogatory because the information requested is already available. Specifically, BNE has submitted a shadow flicker report in this petition and separately in petition 983. BNE further objects to this interrogatory because petitions 983 and 984 have not been consolidated and therefore this request is inappropriate.

Q8. 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.

A8. BNE objects to this interrogatory because the information requested is already available. Specifically, BNE has submitted a noise evaluation in this petition and separately in petition 983. BNE further objects to this interrogatory because petitions 983 and 984 have not been consolidated and therefore this request is inappropriate.

Q9. Do you plan to revise any of the site plans provided with your petition? If so, please provide a copy.

A9. Revised site plans are attached to the pre-filed testimony of Curtis Jones.

Q10. If you plan to revise site plans but have not yet completed those plans, please describe the anticipated revisions.

A10. Not applicable. See response to Q9.

Q11. 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.

A11. BNE objects to this interrogatory because the information requested is irrelevant to this proceeding.

Q12. 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.

A12. BNE objects to this interrogatory because the conclusory statements contained in this interrogatory are not accurate. Specifically, no "erroneous conclusion" was reached. The State Historic Preservation Office (SHPO) has issued a no adverse effect letter relating to this proceeding. Subject to this objection and without waiving the same, BNE responds as follows:

BNE corresponded with the Connecticut SHPO regarding the Project in September 2010 and submitted a Cultural Resources Map (depicting known historic/archaeological resources within one mile of the Project, based on data obtained from publicly available sources). That data was initially compiled in December 2009 during a preliminary due diligence phase of the Project. Prior to submitting this courtesy information to the SHPO in September 2010, VHB reviewed the National Register of Historic Places (NRHP) records that were available online to determine what, if any, new additions may have been made to the list; at that time, the Rock Hall property in Colebrook had not been added to the list.

Regardless, the Cultural Resources Map is provided solely as a courtesy to the SHPO and does not constitute a regulatory determination of any kind. It is the responsibility of the SHPO, which maintains its own records of NRHP properties in the state, to determine whether there will be an adverse effect on cultural resources. The agency's initial review resulted in the issuance of a "no effect" letter on November 29, 2010. The SHPO subsequently requested photographic simulations and a visibility assessment specifically from the Rock Hall property. After extensive coordination with Rock Hall representatives, BNE arranged for VHB to visit the Rock Hall property to evaluate potential views of both Colebrook North and the Colebrook South Project (Docket 983). VHB worked with Rock Hall's representatives and collected photographs from exterior locations selected by the property owner. The photographs, simulations and viewshed map were submitted to the SHPO on March 21, 2011. Rock Hall's consultant was also provided with copies of the photo-simulations as well as coordinates of the turbine locations (including the proposed relocation of Turbine 1) and confirmation of the blade length reduction down to 41.25 meters.

The results of VHB's reconnaissance and photo-documentation indicate that the Colebrook Projects will not be substantially visible from the Rock Hall property. As depicted in the photo-simulations, overall views from this property would be limited. There are a few locations where portions of turbines may be visible through the trees during "leaf off" conditions. During "leaf on" conditions, some locations adjacent to the Rock Hall property pool area may have views of the upper portions of turbine blades above the tree canopy.

Q13. Please provide AUTOCAD dwg files for all site plans included in the petition.

A13. BNE objects to this interrogatory because the information requested is confidential work product.

Q14. Please provide a list of all property lines, residences and related structures, roads, driveways, located within 984 feet of each proposed turbine location.

A14.

Parcels within 984 feet				
MBL	Location	Town	Distance to Residence or Related Structures	Distance to Driveway
7-3	112 Rock Hall Road	Colebrook	1,450 ft	1,440 ft
13-1	Rock Hall Road	Colebrook	Vacant	Vacant
13-28	49 Rock Hall Road	Colebrook	1,050 ft	n/a in construction
7-4	Winsted-Norfolk Road	Colebrook	Vacant	Vacant
8-7	Pinney Street	Colebrook	Vacant	Vacant
8-8	Pinney Street	Colebrook	Vacant	Vacant
8-1	117 Pinney Street	Colebrook	3,160 ft	3,180 ft

Roads within 984 feet	
Road Name	Distance
Rock Hall Road	325 ft

Q15. Please provide a list of all property lines and residences located within 0.5 mile of each proposed turbine location.

A15. See table attached hereto as Exhibit 1.

Q16. Please provide a list of all property lines and residences located within 1 mile of each proposed turbine location.

A16. BNE objects to this interrogatory because the interrogatory is overly broad and unduly burdensome.

Q17. Please provide a list of all property lines and residences located within 1.25 miles of each proposed turbine location.

A17. BNE objects to this interrogatory because the interrogatory is overly broad and unduly burdensome.

Q18. Please provide a list of all property lines and residences located within 1.5 miles of each proposed turbine location.

A18. BNE objects to this interrogatory because the interrogatory is overly broad and unduly burdensome.

Q19. Please provide a copy of your agreement with David Battistoni and/or Rock Hall Associates, LLC.

A19. BNE objects to this interrogatory because the interrogatory because the document is irrelevant to this proceeding and is a confidential and proprietary business record.

Q20. 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.

A20. The requested document is being filed separately pursuant to a motion for protective order and under seal.

Q21. 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.

A21. BNE objects to this interrogatory because the interrogatory is overly broad and unduly burdensome.

Q22. Please provide GPS coordinates of each noise monitoring location identified in your Noise Evaluation.

A22.

Monitoring Location		
M1 – Flagg Hill Road	41° 57' 36.76" N	73° 08' 28.48" W
M2 – Beckley Road	41° 57' 27.75" N	73° 09' 14.31" W

Q23. If your consultant monitored noise at any other location, please provide GPS coordinates of each additional location and provide the data collected.

A23. Although not required, noise monitoring data was collected at the location identified in the Noise Evaluation (Petition, Volume Three, Exhibit M) to establish a baseline datum. No additional existing conditions noise monitoring was performed in association with the Project.

Q24. 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.

A24. BNE objects to this interrogatory because the information requested is irrelevant. Subject to this objection and without waiving the same, BNE responds as follows: a copy of the MLA performed for the proposed turbine locations will be filed separately pursuant to a motion for protective order and under seal.

Q25. 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.

A25. BNE objects to this interrogatory because the information requested is irrelevant to this proceeding.

Q26. Please identify the expected production time for turbines once a contract is signed.

A26. BNE objects to this interrogatory because the information requested is irrelevant to this proceeding.

Q27. 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.)

A27. BNE objects to this interrogatory because the information requested is irrelevant to this proceeding. Subject to this objection and without waiving the same, the requested confidentiality agreement is being filed separately pursuant to a motion for protective order and under seal.

Q28. 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?

A28. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. At Colebrook South, the study design used during the 2010 survey included sampling bird use and species composition at two of the proposed turbine locations and at points within 500 meters of the proposed turbine locations. Sampling was not completed within all directions or within all distances of all turbines as such a study design would not have been practical or necessary given the small number of turbines, the small disturbance area and the homogeneity of bird habitats at the Site. The objectives of the study were to characterize bird species composition and use during the sampling period. The sampling design was adequate to address these objectives. The ratio of sampling points to turbines was extremely high compared with other studies we are aware of which have been completed at proposed wind energy facilities in the northeastern US and New York State. The 2010 study included 12 x 5-min/50-m radius sampling points for the proposed 3 turbines, while, for example, the 79 turbine High Sheldon Wind Farm preconstruction breeding bird study included 44 points (Woodlot Alternatives 2006). Point locations were chosen in order to ensure good spatial coverage of the Site, to ensure proposed turbine locations were sampled and to ensure that representative land cover types present at the Site were sampled. Major bird habitat types were targeted.

Q29. In the Bird Survey, how many survey points were located within 100m and 500m in all directions, of the southernmost turbine?

A29. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. At the time of implementation of the 2010 breeding bird study in June 2010, this turbine location was not being considered by BNE. A total of 3 sampling points were located within 500 meters of the proposed turbine location. As stated in the response to Q28, the ratio of sampling points to turbines was extremely high, despite the fact that a breeding bird point was not arrayed at the southernmost turbine location.

Q30. Why was breeding bird data collected at only 12 points?

A30. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. At Colebrook South, data included in the 2010 report described results of the sampling at the 12 survey points. Information on birds seen and heard incidentally while surveyors were at the Site was also collected and reported.

Q31. Why were no bird surveys conducted from late May to mid June?

A31. The objective was to sample during the season when the majority of breeding birds would be present. Some species (e.g. Scolopax minor) may breed earlier in the season, however, the majority of woodland passerines and other species with the potential to breed within available habitats at the Site are likely to occur during the survey period – June to mid-July. When BNE met with representatives of DEP on March 19, 2010 to discuss the proposed project, the DEP's primary concern was the potential impact of the turbines on the bat population given the overall impact of the White Nosed Syndrome (WNS) on bat populations. DEP indicated that WNS affects cave-hibernating bat species, which are not likely the type of bats that may be impacted by the wind turbines, but requested that acoustic bat surveys be completed at the Project site. BNE agreed to install acoustic bat surveys at the Site and to coordinate with DEP in using similar equipment, methods and metrics that DEP was planning to implement state-wide as part of a state and regional effort to understand the status of bat activity and bat populations given current information on the impact of WNS on bats. BNE contacted representatives of DEP over the next several months to determine the type of bat monitoring equipment that DEP was planning to install, but was unable to do so. As a result, BNE contacted WEST to implement bird and bat surveys for the Project and appropriate measures were implemented. Additional surveys will be completed at the Colebrook South site during the early breeding season (mid-April to mid-May) during 2011. Impacts to breeding birds will be determined through a post-construction fatality monitoring study. The objective of the monitoring study will be to determine the annual and seasonal estimated fatality rates to birds and bats.

Q32. Why were no data collected on spring and fall migratory bird use?

A32. This question is responded to in two parts as follows:

1. Based on existing information derived from several sources, the Site does not appear to be located in an area which would concentrate migratory birds, and impacts to migrating birds are not anticipated to be high relative to other wind energy projects.

a. The majority of waterfowl and waterbirds migrating through Connecticut are concentrated along coastal portions of the state. While open water wetlands, ponds and other waterbodies in the area may occasionally be used by migrating individuals or small groups, the town of Colebrook does not appear to provide significant stopover habitat for migratory waterfowl or other waterbirds. The area is several miles from the nearest major river system, does not contain extensive agricultural lands (which have been know to attract hungry migrant geese and ducks), and is nearly 50 miles inland from the Connecticut coast. The Colebrook area is not included in the CTDEP Migratory Waterfowl GIS data layer that depicts areas with high concentrations of migratory waterfowl, and is not identified as a Waterfowl or Waterbird Focus Area by the Atlantic Coast Joint Venture (ACJV). The ACJV is a partnership of 18 state and federal agencies, regional conservation groups, and others coordinating to protect habitat for native birds in the Atlantic Flyway. Waterfowl may pass over the Project site in flight, however, most migrating waterbirds fly at night (and to a lesser extent during daytime) at altitudes of 500 to 1,000 feet or more (Bellrose 1976). This phenomenon has been confirmed with radar at many locations for ducks, geese, loons, and other birds (Kerlinger 1982, Kerlinger and Moore 1989). Impacts to waterfowl and waterbirds observed at numerous operating commercial wind energy facilities throughout the United States, including at large sites with high migration activity (e.g. Top of Iowa, Iowa), revealed that waterfowl are not particularly susceptible to collision with wind turbines (Koford et al. 2005). No waterfowl or waterbird fatalities have been documented at the closest operational wind facility (Lempster Wind, Lempster New Hampshire; Tidhar et al. 2010).

b. Most songbirds migrate at night, when air conditions and temperatures are more favorable (Kerlinger 1995). In the midwestern and eastern United States, night migrating songbirds have accounted for a majority of the fatalities at wind turbines. In general, the documented level of fatalities has not been large in comparison with the source populations of these species, nor have the fatalities been suggestive of biologically significant impacts to species. Nocturnally migrating songbirds documented at the closest operational wind facility (Lempster Wind, Lempster New Hampshire) have been within the range observed within the region and the nation, and impacts are estimated as resulting in the loss of individuals per annum (Tidhar et al. 2010). The observed level of mortality is also minor when compared to other potential sources of avian mortality (Erickson et al. 2001). The results of pre-construction surveys of nocturnal migration using radar, which include characterizations of passage rate and flight altitude, do not correlate with observed mortality of birds at operational wind energy sites (Tidhar et al. 2010).

c. In Connecticut, the primary fall migration pattern carries raptors from the northeast to the southwest. Raptors generally follow one of three migratory pathways: birds returning from breeding areas east of Connecticut may follow the coastline westward through the state; birds from breeding grounds north of Connecticut may follow the Connecticut River Valley south to the coast and then head west along the coastline; or they may travel southwest through the interior of the state along the hilly regions of Litchfield and Fairfield Counties, passing through the Northwest Highlands and the Southwest Hills. In the western hilly regions, migrating raptors take advantage of rising columns of warm air called thermals, which enable birds to soar for long distances, thereby reducing the energy required for migration (Kerlinger 1995). Because western

Connecticut lacks long linear ridges, such as those occurring along the edge of the Connecticut River Valley, thermals are somewhat spread out over the region, and migration is considered "broad front" as opposed to concentrated. The Northeast Hawk Watch Association (NEHWA) and the Hawk Migration Association of North America (HMANA) monitor the numbers and types of hawks migrating annually over specific mountains or hilltops where regular raptor passage occurs. The majority of hawk watch sites in Connecticut are located along the hills of southern Litchfield County and western Fairfield County. A few hawk watch sites are located in northern Litchfield County in the general region of the Project site, including Booth Hill in Hartland, Pine Mountain in Barkhamsted, and Middle School in Torrington. These sites range from approximately 9.5 to 11 miles to the northeast, east, and southeast of the Project site respectively. Spring raptor migration patterns tend to be focused inland rather than along the Atlantic Coast. In Connecticut, only Peak Mountain and Quaker Ridge have conducted spring raptor migration counts of any duration. These sites are 21 and 45 miles away from the Project site respectively, suggesting that the area surrounding the Project site is not a heavily used corridor during spring migration. The Project site is located many miles from prominent ridgelines and the coast, which are known to be used as primary transportation corridors by large groups of autumn migrating raptors. The Project site also appears to be located in an area that falls outside of the major chain of hawk watch sites that occur in a belt running northeast to southwest through Litchfield and Fairfield Counties. This suggests that the Project area might be outside of the major raptor migration corridors and would receive more sporadic migratory raptor traffic. Occasional individuals could be expected to pass over the site, but would be expected to be of lower frequency and lower abundance than hawk watch sites. Due to the prominence of broad-winged hawk at inland hawk watch sites in Litchfield County, it is anticipated that this species might make up the bulk of migrants potentially passing over the Project site. Peak passage rates in Connecticut for this species occur between early September and early October. Broad-winged hawks have not been highly susceptible to wind energy induced mortality. Raptor mortality from collision with turbines has also been low at most operating wind power projects outside of California (NWCC 2010). In instances where concentrated hawk migration does occur around wind energy sites, evidence to date shows that risk to migrating raptors is not great and not likely to be biologically significant (NWCC 2010, Erickson et al. 2003). The Site does not contain a high prey base for migrating or resident raptors, an important factor in contributing to mortality at operating facilities (Smallwood 2008 and NWCC 2010). No raptor fatalities have been documented at the closest operational wind facility (Lempster Wind, Lempster New Hampshire; Tidhar et al. 2010).

d. While few shorebirds may pass over the Site during migration periods, the Site lacks a high proportion of stopover habitat and existing research has demonstrated that very few shorebirds collide with wind turbines or other tall structures (Erickson et al. 2001). No shorebird fatalities have been documented at the closest operational wind facility (Lempster Wind, Lempster New Hampshire; Tidhar et al. 2010).

2. Despite the information evaluated, additional bird use surveys will be completed at Colebrook South during the spring and fall migration periods of 2011. These studies will provide data on bird species composition and levels of use during the migration seasons. Impacts to migratory birds will be determined through a post-construction fatality monitoring study. The objective of the monitoring study will be to determine the annual and seasonal estimated fatality rates to birds and bats. BNE will conduct such post-construction studies for a period of two years, which is consistent with requests from New York, New Hampshire and Pennsylvania for post

construction monitoring, and is also consistent with recommendations by USFWS, which requests multi-year post-monitoring studies in its draft guidelines. BNE will provide the information to DEP to better inform bird and bat activity on the Site.

Q33. Please describe the impact of the "unidentified passerine" observations on reported species richness and species diversity (Exhibit L).

A33. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. At Colebrook South, the number of unknown passerine observations made was due to dense understory and forest canopy which limited the potential for the surveyor to visually identify birds. The dense vegetation also masked call "signatures," which were often distant and infrequent, limiting the potential for auditory identifications. Many auditory observations were also chirps and not easily identifiable to species, as would be the case with songs. As a result, species richness and bird diversity estimates were affected; however, the degree to which these results were affected is uncertain as species diversity was relatively low while survey effort was average to good for a pre-construction survey effort, particularly for such a small project.

Q34. 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.

A34. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. The data collected at Colebrook South is below:

date	station	start time	end time	vis	cc	temp	units	speed low	speed high	unit
6/29/2010	1	1/0/1900	1/0/1900	GOOD	50	23	C	0	0	MPH
6/29/2010	2	1/0/1900	1/0/1900	POOR	50	21	C	0	0	MPH
6/29/2010	3	1/0/1900	1/0/1900	FAIR	100	22	C	0	0	MPH
6/29/2010	4	1/0/1900	1/0/1900	FAIR	90	22	C	90	22	MPH
6/29/2010	5	1/0/1900	1/0/1900	POOR	85	22	C	0	0	MPH
6/29/2010	6	1/0/1900	1/0/1900	FAIR	85	21	C	0	0	MPH
6/29/2010	7	1/0/1900	1/0/1900	FAIR	85	21	C	0	0	MPH
6/29/2010	8	1/0/1900	1/0/1900	FAIR	85	22	C	0	0	MPH
6/29/2010	9	1/0/1900	1/0/1900	FAIR	85	21	C	1	1	MPH
6/29/2010	10	1/0/1900	1/0/1900	GOOD	20	21	C	0	0	MPH
6/29/2010	11	1/0/1900	1/0/1900	FAIR	20	21	C	0	0	MPH
6/29/2010	12	1/0/1900	1/0/1900	GOOD	10	23	C	1	3	MPH
7/6/2010	1	1/0/1900	1/0/1900	POOR	10	24	C	0	0	MPH
7/6/2010	2	1/0/1900	1/0/1900	FAIR	10	24	C	1	1	MPH
7/6/2010	3	1/0/1900	1/0/1900	POOR	10	24	C	1	1	MPH
7/6/2010	4	1/0/1900	1/0/1900	GOOD	20	24	C	3	7	MPH
7/6/2010	5	1/0/1900	1/0/1900	POOR	15	24	C	1	2	MPH
7/6/2010	6	1/0/1900	1/0/1900	FAIR	15	24	C	1	1	MPH
7/6/2010	7	1/0/1900	1/0/1900	FAIR	20	24	C	1	1	MPH
7/6/2010	8	1/0/1900	1/0/1900	FAIR	30	24	C	0	0	MPH
7/6/2010	9	1/0/1900	1/0/1900	FAIR	30	25	C	0	1	MPH
7/6/2010	10	1/0/1900	1/0/1900	FAIR	30	24	C	0	0	MPH
7/6/2010	11	1/0/1900	1/0/1900	FAIR	30	24	C	0	0	MPH
7/6/2010	12	1/0/1900	1/0/1900	GOOD	30	24	C	2	3	MPH
7/15/2010	1	1/0/1900	1/0/1900	POOR	90	20	C	0	0	MPH
7/15/2010	2	1/0/1900	1/0/1900	POOR	100	20	C	1	2	MPH
7/15/2010	3	1/0/1900	1/0/1900	FAIR	90	20	C	0	0	MPH
7/15/2010	4	1/0/1900	1/0/1900	FAIR	90	19	C	2	3	MPH
7/15/2010	5	1/0/1900	1/0/1900	FAIR	90	20	C	1	2	MPH
7/15/2010	6	1/0/1900	1/0/1900	FAIR	90	19	C	0	1	MPH
7/15/2010	7	1/0/1900	1/0/1900	FAIR	90	19	C	0	0	MPH
7/15/2010	8	1/0/1900	1/0/1900	FAIR	90	20	F	0	0	MPH
7/15/2010	9	1/0/1900	1/0/1900	FAIR		20	C			MPH
7/15/2010	10	1/0/1900	1/0/1900	FAIR	90	20	C	0	0	MPH
7/15/2010	11	1/0/1900	1/0/1900	FAIR	90	20	C	1	1	MPH
7/15/2010	12	1/0/1900	1/0/1900	FAIR	90	20	C	0	0	MPH

Q35. What is the likelihood that all of the unidentified passerine observations in the Bird Survey were of a single species?

A35. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. It is impossible to determine, but unlikely, that all unidentified passerine observations were of a single species. The classification of "unidentified passerine" indicates that the surveyor was unable to identify even to Genus, therefore, determination was not feasible – see response to Q33.

Q36. Which data points were situated to capture bird use in the open water/emergent wetland habitats?

A36. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. At Colebrook South, points 8, 11 and 12 (33% of survey points) were situated in or adjacent to wetlands.

Q37. 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*)?

A37. Nocturnal surveys were not included in the survey design because: (1) the vast majority of pre-construction wind energy breeding bird surveys do not include nocturnal bird surveys; (2) impacts to nocturnally active resident birds have generally been low in the eastern US (e.g. see data from post-construction studies completed in New York, New Hampshire and Pennsylvania); and (3) the DEP did not request such surveys. Playback surveys were not included in the study design because: (1) DEP did not request surveys of this type; (2) direct impacts to Northern goshawk and American bittern are generally believed to be low (in terms of collision risk); and (3) no Northern goshawk or American bittern nests were observed along disturbance areas. Nonetheless, surveys will be completed during the 2011 breeding bird season which include point counts completed during periods when nocturnally active birds would be active and broadcast surveys which include playbacks of northern goshawk and American bittern. A post-construction fatality monitoring survey will also be completed.

Q38. 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.

A38. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. However, as included in the petition, Breeding Bird Surveys were conducted at the Colebrook South property (petition 983), which is proximate to the Colebrook North property. The broad-winged hawk is not state or federally listed as threatened or endangered and was therefore was not characterized as "listed," a generic term referring to designation of threatened or endangered species. Only two broad-winged hawks were observed during the breeding bird study – both of which were seen incidentally while the surveyor was on Site. Impacts to broad-winged hawks from operating wind facilities have been very low, particularly considering the large aggregations of the species which occur during migration, often in proximity to operating utility scale wind facilities. To our knowledge only three broadwinged hawks have been documented as fatalities at 76 operating wind facilities in the US (WEST unpublished data). The species may not be particularly susceptible to collisions because of flight heights, avoidance behavior and foraging behavior.

Q39. 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.

A39. Scaling of impacts using different regional terms is somewhat subjective. The Project is located in a portion of Connecticut that we feel could be termed either northwest Connecticut, central Connecticut, the Litchfield Highlands, the Northwest Highlands, Lower Berkshire Hills, or the Lower New England/Northern Piedmont ecoregion. Metzler and Barrett (2006) identify Colebrook as occurring in the transition zone between the western Connecticut

Hudson Highlands and the Berkshire/Vermont Uplands ecoregions. However one chooses to characterize the region in which the Project occurs, the results of the breeding bird survey are indicative of the bird species and diversity which one may expect to occur within forested and open grassland areas. That was the intent of the statement included in the report.

Q40. 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.

A40. According to an evaluation completed by Zapata Inc. on the disturbance area of the Project, 7.85 acres of forest will be permanently impacted by the Project. Impact areas are illustrated in the map prepared by Zapata Inc. attached hereto as Exhibit 2.

There is a current lack of information on the indirect impacts of wind energy facilities on forested bird communities. It is thought that indirect impacts of wind energy developments are low compared to other forms of development within forested landscapes. For example, a housing development within the project area of the Project would result in far greater loss of forested habitats and increased fragmentation compared with the proposed wind project. Wind turbine pads, access roads and other infrastructure have been minimized in size through project planning, thereby reducing the overall impact areas of development areas on forest bird habitats. The Project will not directly impact the majority of the available forest habitat within the project area.

Q41. As stated in the executive summary of the Bird Survey, one of the principle objectives of the study was to: "provide site-specific resource and use data that would be useful in evaluating potential impacts from the proposed wind energy facility". What site specific bird data was collected at Colebrook North in order to achieve this study objective?

A41. Breeding Bird Surveys were not completed at Colebrook North during 2010; however, bird surveys are being completed at the site during 2011. Breeding bird surveys were only completed within Colebrook South, however, Colebrook South and North are closely situated and contain similar vegetation composition and physiographic characteristics, with the exception of the golf driving range located in Colebrook North (see Exhibit I of BNE's petition). Both Colebrook North and South are located along forested ridges with little variation in vegetation or topography relative to the surrounding landscape. Deciduous forest dominates both Colebrook South and North, and both Properties contain palustrine wetlands. Due to the similarities of habitat, land use and land cover, results of breeding bird surveys for Colebrook South are likely indicative of species composition and relative abundance for Colebrook North. It is possible that Colebrook North may contain higher relative abundance of species which utilize edge habitats and disturbed grasslands, due to the presence of the golf driving range. Species which utilize such areas are regionally common due to the high proportion of disturbed and edge habitats present in Central Connecticut and Southern New England.

Q42. Which habitat type surveyed on the Colebrook South site was used to assess the potential bird use of the Mill Brook perennial stream system?

A42. See response to Q41.

Q43. Given the contention that bird use of Colebrook North is substantially the same as Colebrook South, is there any reason not to assume that Broad-winged Hawk (*Buteo platypterus*), which was observed at Colebrook South, also inhabits the Colebrook North site?

A43. Results from the Colebrook South Breeding Bird survey did not indicate that broad-winged hawks are nesting within Colebrook South. The species was observed very infrequently and not during a standardized survey. No nests were observed while observers were on-site, though a formal nest survey was not completed. Observations of the species during 2010 surveys confirm that broad-winged hawks occur over the site and it is likely, given the distance between Colebrook South and Colebrook North, that the species would occur over Colebrook North during the summer period.

Q44. Please provide the professional experience of Vanasse Hangen Brustlin, Inc. ("VHB") field personnel in conducting habitat assessments for forest-roosting bats.

A44. BNE objects to this interrogatory because the information requested is irrelevant as VHB was not retained to conduct habitat assessments for forest-roosting bats.

Q45. Please state the number and species diversity of any snags identified by VHB personnel during the Vegetation Assessment.

A45. Snags of a variety of species are located throughout the Property. The transitional area between the marsh and forest along the southern Property boundary contains approximately 30 to 40 snags consisting primarily of maples (*Acer* sp.) and eastern hemlock (*Tsuga canadensis*). Several of these snags appeared to be greater than 12 inches diameter at breast height (DBH) but were inaccessible due to site conditions. Several snags on the eastern side of the marsh were created by beaver gnawing, including a hemlock less than 12 inches DBH and a yellow birch (*Betula alleghaniensis*) approximately 18 inches DBH. Dozens of American beech (*Fagus grandifolia*) snags were also located throughout the eastern side of the Property although an inventory of every snag was not conducted and the DBH was variable.

Q46. 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).

A46. A meandering survey was conducted that focused on key habitats, including the marsh and Mill Brook stream system within Wetland 1 and forested habitats in the vicinity of the proposed turbines. A digital camera and field notebook was used to record observations of wildlife, including tracks, rubs, burrows, snags, and physical wetland characteristics indicative of vernal pool habitat. BNE Energy has retained the services of Michael Klemens, Ph.D to identify the presence of vernal pools on the site.

Q47. Why was the DEP's recommendation to have a herpetologist conduct an on-site survey for smooth green snake ignored (Exhibit I)?

A47. As indicated within the Smooth Green Snake Habitat Survey, provided in Exhibit I of the Petition, the Project will not impact the preferred habitat of smooth green snake (moist grassy fields along the forest edge), and thus will not adversely affect this species. The DEP concurred with this finding as noted in a concurrence letter dated January 20, 2011, a copy of which is attached hereto as Exhibit 3.

Q48. Please provide the education and experience in conducting bat acoustic surveys and call analysis for all members of the WEST field team in Connecticut.

A48. BNE objects to this interrogatory as overly broad and unduly burdensome. Subject to this objection and without waiving the same, WEST's acoustic bat analysis was led by Mr. Jeff Gruver, WEST's senior bat biologist. Mr. Gruver has completed at least an estimated 100 acoustic bat analyses for proposed and existing wind facilities. He has presented talks and conducted workshops on bat acoustic analysis at regional and national scientific meetings and symposiums. Mr. Gruver's resume is attached hereto as Exhibit 4.

Q49. Please explain the justification for excluding the possibility that eastern small-footed myotis could occupy the CWRA project site (Exhibit K).

A49. Caves and mines are key winter habitat for eastern small-footed bats and these features are believed to be absent from the Project area. Summer roosts include caves and mines, hollow trees and under bark, cracks and crevices in rock walls, and ridge-top talus fields. This suggests that forested areas with caves, mines, rock outcrops or talus provide key summer habitat. The site is believed to lack caves, mines or talus fields. According to the Connecticut Audubon Society, no eastern small-footed bats have been recorded in Connecticut for several decades.

Q50. Please explain how the 96.2% acoustic sampling rate was calculated (Exhibit K, pg. 7).

A50. The requested data is available in Exhibit K and final sampling rate is included in the final bat acoustic survey report, attached to the pre-filed testimony of David Tidhar. The sampling rate included in the report is 80.3 %.

Q51. Please describe the specific calibration methods and sensitivity settings used by WEST on the CA1 and CA2 detector systems (Exhibit K).

A51. Anabat detectors record bat echolocation calls with a broadband microphone. Calls were recorded to a compact high-capacity flash memory card and data was subsequently transferred onto a computer for analysis. The echolocation sounds were then translated into frequencies audible to humans by dividing the frequencies by a predetermined ratio. A division ratio of 16 was used for this study. Bat echolocation detectors also detect other ultrasonic sounds, such as those sounds made by insects, raindrops hitting vegetation, and other sources. Depending on the environment in which the unit was placed, a sensitivity level of 5.5 or 6 was used to reduce interference from these other sources of ultrasonic noise. To ensure similar detection ranges among anabat units, microphone sensitivities were calibrated using a BatChirp

ultrasonic emitter (Tony Messina, Las Vegas, Nevada) as described in Larson and Hayes (2000). A BatChirp is placed on a platform approximately 18 meters away from a platform on which the Anabat detector is set. Platforms are approximately 1 meter above the floor. The Anabat detector is turned on and the Sensitivity is adjusted until a clear tone is heard from the detector. That level is noted for each detector to be used on a project. When each detector detects a clear tone at the same level (as they often do), detectors are considered calibrated. If a detector detects a clear tone more than ½ step from the other one(s), a note is made the sensitivity should be set up or down appropriately.

Q52. Please describe the specific calibration methods used by WEST to determine the relative sensitivity of the CA1 and CA2 detector systems.

A52. See response to Q51 above.

Q53. 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.

A53. See response to Q51 above.

Q54. 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.

A54. The detection range of Anabat detectors and SM2Bat Units depend on a number of factors, such as echolocation call characteristics, microphone sensitivity, habitat, the orientation of the bat, and atmospheric conditions (Limpens and McCracken 2004; Ian Agranat, President & CEO Wildlife Acoustics, pers. comm. 2010). The detection range of Anabat detectors is generally less than 30 meters (98 feet) due to atmospheric absorption of echolocation pulses (Fenton 1991). The SM2Bat equipment manufacturer, Wildlife Acoustics, claims a detection distance of 100-300 feet (30-100 meters), though given the physics of sound transmission in air, the range of song meter is likely to be similar to that of an Anabat detector (approximately 100 feet [30 meters]), and will be subject to all the same sources of variance, including air temperature, relative humidity, and proximity and orientation of the bat relative to the detector. The nature of sound wave propagation produced by a variable source (moving bats) through a variable medium (air) means that detection distances are subject to a lot of variation. The frequency range of a bat can also affect detection distances.

Q55. Please describe the temporal pattern of bat activity at the CA2 detector (independently of the CA1 detector).

A55. There were only 43 files containing bat passes. There were 4 in June, 28 in July and 11 in August.

Q56. Please identify how the CA1 and CA2 sampling sites were chosen.

A56. The two Anabat detectors were placed near the ground at two fixed stations (CA1 and CA2) on the Colebrook South (petition 983) property. The SM2Bat unit was placed near the ground at a third location (CS1; Figure 2 of final report). Station CA1 was located along an abandoned forest track in deciduous forest at one of the proposed turbine locations near the

center of the Project. A narrow woodland shelterbelt was located between station CA1 and a forest clearing in which the meteorological (met) tower was located. Station CA2 was located along an abandoned forest track at a proposed turbine location in the northwest corner of the Project, also in deciduous forest . The SM2Bat unit was placed at the edge of a beaver pond and wetland complex between the two Anabat stations. Open 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.

Q57. Please identify the state or federal sampling guideline that was used to develop the sampling protocol at the CWRA project site (Exhibit K).

A57. Survey protocols and analysis methods used were consistent with approaches used across the country for pre-construction wind energy studies (e.g. Cape Vincent Wind, New York) and recommended in state (e.g. New York, Pennsylvania, Maine) guidelines and federal (FACA 2010 draft) recommendations, as well as by scientists working in the fields of bat bio-acoustics and bat ecology (e.g. Kunz et al 2007, Arnett et al 2008, Brintsky 2004**).**

Q58. 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)?

A58. BNE objects to this interrogatory because the information requested is irrelevant. Specifically, BNE notes that the Property is not located in the State of Pennsylvania and therefore does not have to comply with such standards.

Q59. 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)?

A59. BNE objects to this interrogatory because the information requested is irrelevant. Specifically, BNE notes that the Property is not located in the State of New York and therefore does not have to comply with such standards.

Q60. 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)?

A60. BNE objects to this interrogatory because the information requested is irrelevant. Specifically, BNE notes that the Property is not located in the State of New Jersey and therefore does not have to comply with such standards.

Q61. 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).

A61. Red bats do, on occasion, produce some calls in sequence that exceed 43 kHz, but it is not typical, and even on occasions when some calls in a sequence approach 43 kHz, the sequence often will have started below 40 kHz. We do not extend MF to 43 kHz because while some red bat calls in a sequence may exceed 40 kHz, at least some generally fall below 40 kHz. In addition, extending MF to 43 kHz would defeat the purpose of having separate MF and HF categories because the species captured by the HF category (most of the Myotids as well as Perimyotis) typically don't have minimum call frequencies that exceed 43 kHz.

Q62. 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?

A62. Species groups are defined for the purpose of readily classifying echolocation calls. Bats vary their echolocation based on task, and there is individual variation in bat echolocation. Any classification boundary based on frequency of echolocation is arbitrary. As such, some calls will straddle the boundary between groups.

Q63. 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?

A63. This would be a logical conclusion. An alternative would include the possibility that some big brown bat calls were included in the group.

Q64. 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.

A64. See Final Bat Acoustic Study attached to the pre-filed testimony of David Tidhar.

Q65. 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?

A65. It is certainly possible. While both species are geographically widespread, they may not be locally abundant. For example, Brooks (2011) reported that 7% of passes recorded in Massachusetts were from red or hoary bats.

Q66. 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.

A66. There is no meteorological tower installed at the Colebrook North property. There was a meteorological (MET) tower installed at the Colebrook South (petition 983) property. There are certain risks, including safety risks and the potential damage to the Met tower, that could arise from lowering the tower to install bat monitoring equipment. Lowering

the tower could also result in delays to bat monitoring activities given the time needed to lower the tower and the potential risks associated with it. After consulting with WEST on the various issues regarding bat monitoring equipment, including the concerns referenced above, BNE determined that ground-based monitoring equipment was appropriate for the Site. Ground-based Anabat sampling has been a standard component of pre-construction acoustic bat monitoring at commercial wind-energy sites for several years. Over recent years, scientists working in this field (e.g. Kunz et al 2007, WEST) have recommended acoustic sampling within the rotor swept zone, however, this is not always possible because elevating detectors to sufficient height may not be feasible because: 1) suitable structures may not be present, or 2) because suitable structures may not be altered without risking damage to the structure or other equipment. At the Site, the second scenario was the reason why an elevated detector could not be deployed – placement of a detector (or means of elevating a detector such as a Bat Hat system) would have required lowering the meteorological tower to the ground which may have damaged meteorological instrumentation and resulted in study delay and additional significant costs, respectively. Due to this reason, two ground based detectors were deployed at the Sitet – one was located in an existing forest clearing while the second was located at a proposed turbine location. This sampling design allowed for comparative analysis between bat activity at a proposed turbine location with an open canopy clearing.

A current conclusion reached by biologists working in the field of wind-energy/wildlife interactions is that bat activity indices derived from pre-construction acoustic studies show a rough correlation with post-construction fatality patterns (see final bat report and NWCC 2010). This conclusion is largely based on ground-based Anabat sampling.

Q67. 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).

A67. This statement is intended to mean large colonies (e.g., hibernacula); this statement should have been qualified in the report.

Q68. Are upland sites with perennial streams and water habitat are critical roost habitat for bat species?

A68. Critical habitat implies specific designations defined by agencies for listed species. Here we interpret "critical" in the more general sense – to mean important. We must also differentiate crevice-roosting species (those that roost in cracks or crevices or under exfoliating bark in trees from foliage roosting species (those that roost in branches, mimicking and hiding in leaf clusters). Forested areas with suitable roosting habitat (e.g., snags for crevice roosting species) and perennial water are likely to meet most of a bats needs during the summer, and may be used preferentially by bats (Brigham 2007).

Q69. Are hydric habitats (including wetlands) a landscape-level feature that consistently associated with high levels of bat activity?

A69. Bats need open clean water for drinking and insects for feeding. To the extent that hydric habitats provide those, they generally have high levels of activity relative to surrounding non-hydric areas during the non-hibernation season.

Q70. Are permanent water sources and wetland habitats used as foraging and/or roosting habitat by bats?

A70. They likely would be used for foraging. They may be used for rooting if suitable habitat and temperatures are available.

Q71. 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).

A71. See response to Q67.

Q72. 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.

A72. See response to Q67.

Q73. 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.

A73. The requested information is included in the final bat acoustic study attached to the pre-filed testimony of David Tidhar.

Q74. 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 none of the six habitat types identified by VHB at the Colebrook North project site was surveyed for bat activity.

A74. Acoustic bat surveys were not completed at Colebrook North in 2010. Acoustic bat surveys were completed at the Colebrook South (petition 983) site. Colebrook South and North are closely situated and contain similar vegetation composition and physiographic characteristics, with the exception of the golf driving range located in Colebrook North. Both Colebrook North and South are located along forested ridges with little variation in vegetation or topography relative to the surrounding landscape. Deciduous forest dominates both Colebrook South and North, and both Properties contain palustrine wetlands. Due to the similarities of habitat, land use and land cover, results of acoustic bat surveys for Colebrook South are likely indicative of species composition and relative abundance for Colebrook North. Based on vegetation and habitat mapping there is no apparent land cover or habitat differentiation which would result in different bat species assemblages between Colebrook North and South. Additionally, pre-construction acoustic surveys are planned to be completed at Colebrook North between April 15 – October 31, 2011. In addition BNE has committed to complete post-construction bat fatality monitoring in addition to post-construction acoustic monitoring surveys.

Q75. 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.

A75. The objective of the study was to characterize bat activity seasonally and it included the majority of the maternity season and the fall migration period. Importantly, the study was completed during the period in which most bat fatalities have been documented as wind turbine collisions and the period in which bat activity is greatest.

When BNE met with representatives of DEP on March 19, 2010, to discuss the BNE projects, the DEP's primary concern was the potential impact of the turbines on the bat population given the overall impact of the White Nosed Syndrome (WNS) on bat populations. DEP indicated that WNS affects cave-hibernating bat species, which are not likely the type of bats that may be impacted by the wind turbines, but requested that acoustic bat surveys be completed at the Project site. BNE agreed to install acoustic bat surveys at the Site and to coordinate with DEP in using similar equipment, methods and metrics that DEP was planning to implement state-wide as part of a state and regional effort to understand the status of bat activity and bat populations given current information on the impact of WNS on bats. BNE contacted representatives of DEP over the next several months to determine the type of bat monitoring equipment that DEP was planning to install, but was unable to do so. As a result, BNE contacted WEST to implement bird and bat surveys for the Colebrook South project and appropriate measures were implemented. The objective of the study was to characterize bat activity seasonally and it included the majority of the maternity season and the fall migration period. Importantly, the study was completed during the period in which most bat fatalities have been documented as wind turbine collisions and the period in which bat activity is greatest.

Q76. Given the abundance of large diameter hardwood trees the Colebrook North project site, what effort was made to document tree-roosting bat activity in the secondary-growth northern hardwood forest habitat?

A76. Acoustic bat surveys were not completed at Colebrook North in 2010. Pre-construction acoustic surveys are planned to be completed at Colebrook North between April 15 – October 31, 2011. In addition BNE has committed to complete post-construction bat fatality monitoring in addition to post-construction acoustic monitoring surveys. See also responses to Q74 and Q75.

Q77. Given the high density of American beech snags at the Colebrook North secondary-growth northern hardwood forest habitat, what effort was made to document tree-roosting bat activity in the western portion of the Colebrook North project site?

A77. Acoustic bat surveys were not completed at Colebrook North in 2010. Pre-construction acoustic surveys are planned to be completed at Colebrook North between April 15 – October 31, 2011. In addition BNE has committed to complete post-construction bat fatality monitoring in addition to post-construction acoustic monitoring surveys. See also responses to Q74 and Q75.

Q78. Given the presence of perennial flowing water through the project site, what effort was made to document foraging bat activity along the wetland habitat in general and the Mill Brook specifically?

A78. Acoustic bat surveys were not completed at Colebrook North in 2010. Pre-construction acoustic surveys are planned to be completed at Colebrook North between April 15 – October 31, 2011. In addition BNE has committed to complete post-construction bat fatality monitoring in addition to post-construction acoustic monitoring surveys. See also responses to Q74 and Q75.

Q79. Given that the Colebrook North project site was unique in containing large diameter hardwood tree species and a perennial flowing water system, please justify why no bat activity monitoring was conducted at this project site.

A79. Acoustic bat surveys were not completed at Colebrook North in 2010. Pre-construction acoustic surveys are planned to be completed at Colebrook North between April 15 – October 31, 2011. In addition BNE has committed to complete post-construction bat fatality monitoring in addition to post-construction acoustic monitoring surveys. See also responses to Q74 and Q75.

Q80. What is the source of the site topography shown on the plans (Exhibit F)? What is the level of accuracy and precision?

A80. The source of the topography shown on the plans is from the State of Connecticut, Department of Environmental Protection. All 2004 Statewide Aerial Survey imagery and data products are defined under State of Connecticut contract award number RFP-990-A-14-0518-C (dated Feb 22, 2000). The Connecticut Statewide LiDAR dataset consists of x, y, and z point-data from an interpolated surface model ("bare-earth") derived from an Airborne LiDAR Topographic Mapping System (ALTMS). This data underwent automated processes to interpolate and create 2 foot elevation contours from the 20-foot posting LiDAR 2000 point data. The horizontal positional accuracy of the 20-foot posting LiDAR 2000 point data is approximately 3 feet on the ground. A field topographic survey was completed by Riordan Surveying at the area of the wetlands crossing to further improve the accuracy of the site topography in this area.

Q81. What is the source of the wetland boundary locations shown on the plans (Exhibit F)? What is the level of accuracy and precision?

A81. Wetland boundary flag locations have been located in the field using a GPS receiver utilizing available real-time Satellite-Based Augmentation System (WAAS) corrections. Resulting positions have been post-processed against the nearest Continuously Operating Reference Station (CORS) tied to the National Spatial Reference System (NSRS). Resulting positions have been post-processed using generally accepted survey adjustment methods with an ultimate expected horizontal accuracy of less than one meter. The wetlands flags in the immediate vicinity of the wetlands crossing were field located by Riordan Surveying using an electronic theodolite. The survey field control utilized was the same control utilized in completing the A-2 property line survey. The area encompassed for this extended from the northerly property line southerly for 275'. The horizontal accuracy of these measurements is within one inch.

Q82. 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?

A82. See response to Q81.

Q83. Do all of the plans conform to A-2 and T-2 standards (Exhibit F)? If not, which ones do not?

A83. A-2 standards refer to the horizontal accuracy of boundary lines. The boundary lines shown were compiled from previous surveys as a Class D survey in accordance with the standards set forth by the State of Connecticut. The topographic information in the vicinity of the wetlands crossing conforms to T-2 standards. The rest of the topographic information conforms to T-D standards.

Q84. 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?

A84. Harvested trees will be utilized for saw logs or log length firewood and hauled off-site. Tree tops and woody debris (excluding stumps) not meeting the above referenced criteria will be chipped. Wood chips will be trucked off-site or utilized on-site for erosion control. Stumps will be hauled off site and disposed of properly.

Q85. Where is the dewatering wastewater treatment detail?

A85. Dewatering treatment details will be depicted on the final construction drawings. These drawings will be completed after receipt of the results of the geotechnical investigation are complete and will be included in the anticipated development and management (D&M) phase of this proceeding.

Q86. How much earthwork (total volume of cut and fill) is required to execute the plans?

A86. The total volume of cut on the site is 4950 cubic yards. The total volume of fill on the site is 9600 cubic yards.

Q87. Is the total earthwork balanced, or will there be a net import or export of earth materials?

A87. The site is designed to be balanced taking into account the volume of specialized earth material that needs to be brought onto the Site.

Q88. How much specialized earth material (bank-run gravel, process gravel, rip-rap, etc.) will be required, in terms of yardage and truck trips?

A88. 4650 cubic yards of specialized earth material will be required. At an average load of 15 cubic yards per truck, this equates to 310 truck loads.

Q89. 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?

A89. It is estimated that 4220 cubic yards of topsoil will be stockpiled at the site for use in site restoration. The topsoil will be stockpiled in the location shown on the plans, which is on the left side of the main access road in the vicinity of Station 15+50. It is not anticipated that any topsoil will be exported from the Site.

Q90. Why is no grading shown for the entire downslope blade at each assembly area?

A90. In an effort to reduce the temporary impacts from regrading, the tip of the downhill blade will be allowed to overhang on the downslope side during assembly.

Q91. Per Construction Schedule Note 10 on Sheet C-200 (Exhibit F) will any off-site grading be required? If so, have grading rights been obtained? If they are not available, how will this affect the plans?

A91. The plans have been revised to eliminate this note. No off-site grading will be required.

Q92. 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, the temporary sediment trap and the road side slopes.

A92. The plans have been revised to resolve any conflict.

Q93. 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?

A93. Sheet C-201 shows the original location for Turbine 1. The plans have been revised to show an alternate location for Turbine 1. The discharge points for the temporary diversions for the alternate are clearly shown on Sheet C-201. The calculations for the temporary diversions are shown in Appendix K of the Stormwater Management Plan. The measures for sediment and erosion control are also clearly shown. The measures include silt fencing, temporary sediment trap, rip rap pads and temporary seeding.

Q94. 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)?

A94. The plans have been revised so that no slopes are steeper than 2:1.

Q95. Please explain the discrepancy between the design of the silt fence north of the tower assembly area for Turbine 1 and the requirements of the CT Erosion and Sediment Control Manual

A95. The plans have been revised as noted in the response to Q93.

Q96. How large is the drainage area discharging to the unlabelled structure west of the road @ Station 1 + 00 on Sheet basin shown on Sheet C-202 (Exhibit F)? What is the slope of the berm for this basin? Where is the outlet structure or weir?

A96. The plans have been revised so that this feature is no longer needed.

Q97. Please explain the discrepancy between the design of the silt fence throughout Sheet C-202 (Exhibit F) and the requirements of the CT Erosion and Sediment Control Manual.

A97. BNE objects to this interrogatory because it is vague. There is no such discrepancy in the revised plans.

Q98. What is the minimum separating distance between Wetland 2 and the proposed clearing limits?

A98. The distance is 200 feet.

Q99. Please explain how temporary seeding will be adequate to stabilize the slope just south of the property line on C-203 (Exhibit F).

A99. The plans have been revised to significantly reduce the slopes in this area. Temporary seeding is a recommended measure for this condition based upon the 2002 Guidelines.

Q100. Please explain the discrepancy between the design of the silt fence throughout Sheet C-203 (Exhibit F) and the requirements of the CT Erosion and Sediment Control Manual.

A100. BNE objects to this interrogatory because it is vague. There is no such discrepancy in the revised plans.

Q101. How will run-on from upslope areas, groundwater seepage and slumping be controlled on the cut slopes above the blade laydown area on Sheet C-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?

A101. Temporary diversion TD-1 is located uphill of the blade laydown area as shown on the revised plans. It will discharge into TST-1 as shown on the plans. There is a drainage area of 2.13 acres as shown in Appendix K of the Stormwater Management Plan. The erosion control measures are shown on the plans.

Q102. What drainage measures are currently present on the south side of Rock Hall Road?

A102. There are no drainage measures on the south side of Rock Hall Road.

Q103. Where will the drainage ditch on the north side of the access road on Sheet C-204 (Exhibit F) between Sta. 2 + 75 and 0 + 00 discharge? Is there a drainage system in this area to accommodate the flow? Has its capacity been analyzed? If so, what are the results? If not, how can BNE assert that its proposal will have no adverse impacts?

A103. The turbine 1 location referred to in this interrogatory has been re-located and therefore this question is not applicable to the revised layout. See pre-filed testimony of Curtis Jones.

Q104. Where will the drainage ditch on the south side of the access road on Sheet C-204 between Sta. 1 + 50 and 0 + 00 discharge? Has its capacity been analyzed? If so, what are the results? If not, how can BNE assert that its proposal will have no adverse impacts?

A104. See response to Q103.

Q105. How large is the drainage area that discharges to the proposed culverts at the wetland crossing shown on C-204 (Exhibit F)? What are the 50 year return frequency peak flows to these culverts?

A105. See response to Q103.

Q106. Please explain the discrepancy between the design of the silt fence throughout Sheet C-204 (Exhibit F) and the requirements of the CT Erosion and Sediment Control Manual.

A106. See response to Q103.

Q107. How much earthwork is required to execute the grading plans shown on Sheets C-201-204 (Exhibit F)? If the earthwork is not balanced, will there be a net cut or fill and how much material will be imported or exported from the site? Where are the soil stockpile areas?

A107. See response to Q86-Q89.

Q108. 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?

A108. See revised plans attached to the pre-filed testimony of Curtis Jones.

Q109. 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?

A109. The revised plans, attached to the pre-filed of Curtis Jones, conform to the requirement of the Erosion Control Manual.

Q110. 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.

A110. The revised plans, attached to the pre-filed of Curtis Jones, conform to the requirement of the Erosion Control Manual.

Q111. Why is no grading shown for western 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?

A111. See response to Q103.

Q112. Will a support building be provided at this site? If so, please provide site plans (including grading, erosion control, access, utilities, sanitary facilities) for the support building. How much site disturbance be required to make this facility operational? Was this included in the area of disturbance calculations? If so, please provide a plan and calculations demonstrating this.

A112. No support building is proposed for this Site.

Q113. If no support building will be provided at this site, how will sanitary facilities and utilities be provided for maintenance work?

A113. Not applicable.

Q114. How will the downslope end of the blade be supported in the assembly of the blade for Turbine 1? What operations and equipment are required to assemble the blade? Why is the apparent operational space around each of the vanes of the blade the same?

A114. It is not necessary to support the full length of the blade on the downhill end. Since most of the weight of the blade is concentrated near the hub, relatively little weight is present on the outer half of the blade and hence it is acceptable to allow that portion of the blade to be unsupported during blade assembly. This procedure will help to minimize the amount of land that is required to be disturbed during construction. A crane will be utilized on site to assemble the blades.

Q115. Given the 16' grade differential shown on Sheet C-302 (Exhibit F), how will the southern blade tip be supported during assembly of the blade for Turbine 2?

A115. See response to Q114.

Q116. Given the 24' grade differential shown on Sheet C-303 (Exhibit F), how will the southwestern blade tip be supported during assembly of the blade for Turbine 3?

A116. See response to Q114.

Q117. Why aren't the culverts at the wetland crossing shown on the road plan and profile Sheet C-304 (Exhibit F) as is standard practice?

A117. The culverts are shown on the revised plans on Sheets C-305 and C-306.

Q118. Given the very steep grade of the access road to Turbines 2 and 3 (12.26% for over 200') please provide supporting calculations to demonstrate that the roadside ditches are stable.

A118. The plans have been revised to show a maximum grade of 9.9%. The supporting calculations for the stability of the roadside swales are shown in Appendix K of the Stormwater Management Plan.

Q119. Why are no sediment control measures shown at the discharge points from the roadside ditches to the wetlands at the crossing?

A119. The erosion control measures are shown on Sheets C-201 and C-202.

Q120. How will the permanent roadside ditch on the north side of the access road west of the wetland crossing be stabilized? Why are no erosion control or water quality measures provided?

A120. There is no permanent ditch in this location on the revised plans.

Q121. Why is the permanent access road widest at the wetland crossing (Exhibit F, Sheet C-311)?

A121. A three foot high by 12 foot wide culvert is proposed at each of the two watercourse crossings. These structures require approximately three feet of cover over them to distribute the live loads from the construction equipment. Consequently, five to six feet of fill is required in the wetlands area.

Q122. Please explain the conflict between the Petition, which states that the site will be restored to its pre-construction condition (forested), and the restoration plan (Exhibit F, Sheet 312) which shows only 3 trees and 30 shrubs to restore a disturbed area of approximately 10 acres?

A122. Part of the reasoning for proposing the alternative layout for turbine 1 in the revised plans was to reduce the total disturbed area for the site by eliminating the need to construct a separate access road for turbine 1. With the alternative location for turbine 1, the total disturbance for the site is 7.85 acres, with 3.46 acres being temporary disturbance only. The temporarily disturbed area, consisting mainly of forest habitat (that most common found throughout Connecticut), will be seeded using New England Conservation/Wildlife Mix and will quickly develop into successional habitat.

Q123. What will be the impact on forest-interior birds and other disturbance sensitive species of this permanent conversion of forest to meadow?

A123. BNE objects to this interrogatory because it is vague and ambiguous.

Q124. Where will the temporary stream crossing/temporary bridge crossing detail shown on sheet C-503 (Exhibit F) be used?

A124. This detail is not on the revised plans.

Q125. Where is the centerline of the two intermittent watercourses at the proposed wetland crossing detailed on Sheet C-503 (Exhibit F)?

A125. This detail is not on the revised plans. The two watercourses are shown on Sheets C-201, C-202, C-301, C-302, C-305, C-306, C-401 and C-402.

Q126. Please explain the internal discrepancies in the Wetland Crossing detail on Sheet C-503 (Exhibit F) with respect to the culvert type, size and length and provide a revised detail that is consistent.

A126. The watercourse crossings have been revised to show three foot high by twelve foot wide culverts at each location. Final details will be provided after the geotechnical report is completed.

Q127. Why was no construction sequence provided for the Wetland Crossing, particularly with respect to accommodating the existing flow during construction, dewatering, and sediment control to protect the downstream watercourse and aquatic resources?

A127. The construction sequence is shown on Sheet C-500 of the revised plans.

Q128. Where will the wetland crossing detail referenced on C-503 (Exhibit F) and shown as Detail 2 on Sheet C-504 (Exhibit F) be used?

A128. This wetlands crossing detail is not on the revised plans.

Q129. Why doesn't the temporary sediment basin conform to the requirements of the Erosion Control Manual with respect to height, width and slope of the containment berm? Where is outlet weir? How will the flow be conveyed to a stable outlet?

A129. The revised plans are in accordance with the 2002 Guidelines and the necessary details have been shown.

Q130. Please provide a plan and profile detail and construction sequence for the underground electric trenching required?

A130. These plans will be developed during the D&M phase in conjunction with the Connecticut Light & Power Company.

Q131. 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.

A131. The details for the stabilization of the roadside swales are shown on Sheet C-502. The supporting calculations are shown in Appendix K of the Stormwater Management Plan.

Q132. Why are there no erosion control or water quality measures at the outlets from the temporary roadside ditches to the watercourse at the wetland crossing?

A132. Erosion control and water quality measures have been shown as appropriate at these locations.

Q133. How will the flow from the ditch shown on the south side of the permanent access road on Sheet C-310 (Exhibit F) be stabilized downslope of the end of the gravel section at approx. elevation 1318?

A133. Sheet C-310 depicts the post construction grading plan. This ditch is shown on Sheets C-402 and C-403 of the revised plans. This ditch will discharge into a ten foot wide by twelve foot long modified rip rap pad and will then be dissipated through a thirty foot long level spreader. Supporting calculations are shown in Appendix K of the Stormwater Management Plan.

Q134. Why are no measures shown to stabilize the ditch shown on the north side of the permanent access road on Sheet C-310 (Exhibit F) be stabilized?

A134. Sheet C-310 depicts the post construction grading plan. This ditch is shown on Sheets C-402 and C-403 of the revised plans. This ditch will discharge into Stormwater Pond 1 and will then be dissipated through a thirty foot long level spreader. Supporting calculations are shown in Appendix K of the Stormwater Management Plan.

Q135. 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?

A135. These design measures will be incorporated into the D&M plans once the geotechnical report is completed

Q136. What is the drainage area upslope of the low point on the crane assembly access road to Turbine 1. How will runoff be controlled at this point during construction and how will sediment be removed from the runoff?

A136. See response to Q103.

Q137. Why is there a discrepancy between the Erosion Control narrative and the plans with respect to stabilization of slopes steeper than 2:1?

A137. BNE objects to this interrogatory because it is vague. There is no such discrepancy.

Q138. 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.

A138. Monitoring of the Upland Meadow Creation and Restoration Areas will be conducted by a qualified third party inspector as follows. These areas will be monitored for the

first two growing seasons following their construction. Monitoring reports will be submitted to the Connecticut Siting Council no later than December 15 of each year. The reports will provide details on the three success standards described below and recommended corrective measures if necessary. The first year of monitoring will be the first year that the site has been through a full growing season after completion of construction and planting. For monitoring purposes, a growing season starts no later than May 31.

The Restoration Areas will be assessed using three success standards; as follows: Success Standard 1: At least 75% of the surface area of the Restoration Areas should be reestablished with indigenous species within two growing seasons. Success Standard 2: Vegetation should be checked to ensure that no invasive species colonize in the Restoration Areas. Success Standard 3: Slopes within and adjacent to the Restoration Areas are stabilized

Q139. Please provide calculations demonstrating the adequacy of the proposed temporary sediment basins.

A139. See the supporting calculation provided in Appendix K of the Stormwater Management Plan.

Q140. Can you direct us to the detail for sediment control for dewatering wastewaters?

A140. These design measures will be included in the D&M plans after the geotechnical report is completed.

Q141. Can you direct us to the calculations for sizing what appears to be a sediment basin west of Turbine 2 (Exhibit F)?

A141. The location of the temporary sediment trap has been relocated to the south of Turbine 2. The supporting calculations are provided in Appendix K of the Stormwater Management Plan.

Q142. 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?

A142. BNE does not believe that any soil erosion control bonds are necessary, nor does the Council require such assurances as part of the approval process. However, should the Council deem such controls necessary, BNE will comply with such orders.

Q143. Do you have a permit under the Inland Wetlands and Watercourse Act CGS §§22a-36 to 22a-45(a) for Wind Colebrook North?

A143. The Siting Council has exclusive jurisdiction over the approval of the proposed Project, including all issues relating to the Inland Wetlands and Watercourses Act permitting requirements. See Conn. Gen. Stat. § 16-50g *et seq*.

Q144. 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?

A144. See response to Q143.

Q145. If you intend to apply, when do you intend to do so?

A145. See response to Q143.

Q146. If you have already received and Inland Wetlands and Watercourse Permit, please attach a copy of the permit.

A146. See response to Q143.

BNE ENERGY INC.

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.

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Emily A. Gianquinto
Reid and Riege, P.C.
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Hartford, CT 06103

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134 Forest Avenue
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/s/ Carrie L. Larson
Carrie L. Larson

ACTIVE/72955.6/CLARSON/2422569v1

EXHIBIT 1

Petition No. 984 – Wind Colebrook North

FairwindCT, Inc.'s Second Set of Interrogatorries to BNE Energy, Inc.

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

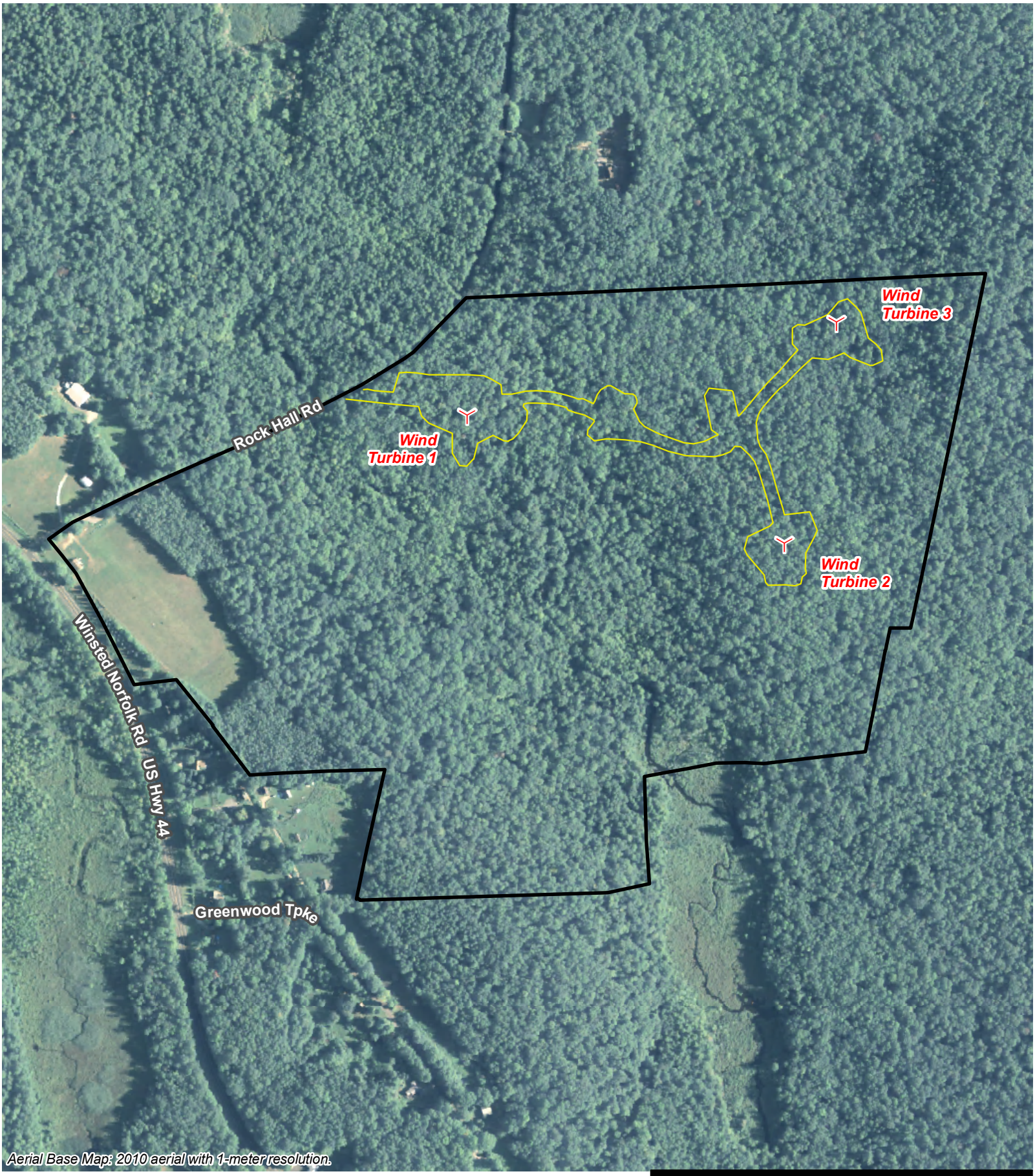
Answer:

Parcels Within 0.5-Mile of Wind Turbine 1			
Parcel ID	***Owner Name***	***Site Address***	***Town***
4-10 5	NORTHWESTERN SPORTSMEN ASSOC.	Greenwoods Road East	Norfolk
4-10 7	DOMATO R & WM HOWIE J RICHARD	Tim O`Connor Road	Norfolk
4-10 4	Town of Norfolk	599 Greenwoods Road East	Norfolk
4-10 9	United States of America	Greenwoods Road East	Norfolk
7-12	William A & Muriel T Meeker	32 Greenwoods Turnpike	Colebrook
1-7	Northwestern CT Sportsmans	Northwestern CT Sportsmen Club	Colebrook
7-2	Northwestern CT Sportsmans	177 Winsted-Norfolk Road	Colebrook
7-3	Maasser Annual Reunion Association Inc	112 Rock Hall Road	Colebrook
13-1	Christine L. Stauffer	Rock Hall Road	Colebrook
13-28	Jeffrey W. Stauffer & Mary E. Hubbard	49 Rock Hall Road	Colebrook
7-4	Rock Hall Associates LLC	Winsted-Norfolk Road	Colebrook
7-5	James F & Judith A Tierney	160 Winsted-Norfolk Road	Colebrook
7-6	Thomas F Cail	154 Winsted-Norfolk Road	Colebrook
7-7	Julianne & Jeffery Lepkowick	150 Winsted-Norfolk Road	Colebrook
7-8	Gregg & Laura R. Gangi	4 Greenwoods Turnpike	Colebrook
7-10	Kristin & Benjamin Mow	12A Greenwoods Turnpike	Colebrook
7-9	Kevin B Carey	10 Greenwoods Turnpike	Colebrook
7-11	Walter M Zima Jr	12B Greenwoods Turnpike	Colebrook
7-15	Mark H & Kasey Greenier	1 Greenwoods Turnpike	Colebrook
7-14	William A & Muriel T Meeker	17 Greenwoods Turnpike	Colebrook
7-13	Peter S Giansiracusa	25 Greenwoods Turnpike	Colebrook
8-7	Susan N Wagner	Pinney Street	Colebrook
8-8	PLAGER HELEN L - IN TRUST	Pinney Street	Colebrook
8-1	Susan N Wagner	117 Pinney Street	Colebrook
13-2	OLD NEWGATE COON CLUB INC	Rock Hall Road	Colebrook
13-5	Dwight D & Carolyn A Pylica	40 Rock Hall Road	Colebrook
13-6	STAUFFER CHRISTINE L	36 Rock Hall Road	Colebrook
13-4	Richard & Joyce Hemingson	44 Rock Hall Road	Colebrook

Parcels Within 0.5-Mile of Wind Turbine 2			
Parcel ID	***Owner Name***	***Site Address***	***Town***
1-11	State of CT	Winsted-Norfolk Road	Colebrook
7-12	William A & Muriel T Meeker	32 Greenwoods Turnpike	Colebrook
7-2	Northwestern CT Sportsmans	177 Winsted-Norfolk Road	Colebrook
7-3	Maasser Annual Reunion Association Inc	112 Rock Hall Road	Colebrook
13-1	Christine L. Stauffer	Rock Hall Road	Colebrook
13-28	Jeffrey W. Stauffer & Mary E. Hubbard	49 Rock Hall Road	Colebrook
7-4	Rock Hall Associates LLC	Winsted-Norfolk Road	Colebrook
7-5	James F & Judith A Tierney	160 Winsted-Norfolk Road	Colebrook
7-6	Thomas F Cail	154 Winsted-Norfolk Road	Colebrook
7-7	Julianne & Jeffery Lepkowick	150 Winsted-Norfolk Road	Colebrook
7-8	Gregg & Laura R. Gangi	4 Greenwoods Turnpike	Colebrook
7-10	Kristin & Benjamin Mow	12A Greenwoods Turnpike	Colebrook
7-9	Kevin B Carey	10 Greenwoods Turnpike	Colebrook
7-11	Walter M Zima Jr	12B Greenwoods Turnpike	Colebrook
7-15	Mark H & Kasey Greenier	1 Greenwoods Turnpike	Colebrook
7-14	William A & Muriel T Meeker	17 Greenwoods Turnpike	Colebrook
7-13	Peter S Giansiracusa	25 Greenwoods Turnpike	Colebrook
8-6	Susan N Wagner	95 Pinney Street	Colebrook
8-7	Susan N Wagner	Pinney Street	Colebrook
8-8	PLAGER HELEN L - IN TRUST	Pinney Street	Colebrook
8-1	Susan N Wagner	117 Pinney Street	Colebrook
14-2-1	REMISZEWSKI JULIE LYNN	Pinney Street	Colebrook

Parcels Within 0.5-Mile of Wind Turbine 3			
Parcel ID	***Owner Name***	***Site Address***	***Town***
7-12	William A & Muriel T Meeker	32 Greenwoods Turnpike	Colebrook
7-3	Maasser Annual Reunion Association Inc	112 Rock Hall Road	Colebrook
13-1	Christine L. Stauffer	Rock Hall Road	Colebrook
13-28	Jeffrey W. Stauffer & Mary E. Hubbard	49 Rock Hall Road	Colebrook
7-4	Rock Hall Associates LLC	Winsted-Norfolk Road	Colebrook
7-10	Kristin & Benjamin Mow	12A Greenwoods Turnpike	Colebrook
8-6	Susan N Wagner	95 Pinney Street	Colebrook
8-7	Susan N Wagner	Pinney Street	Colebrook
8-8	PLAGER HELEN L - IN TRUST	Pinney Street	Colebrook
8-1	Susan N Wagner	117 Pinney Street	Colebrook
13-8	Diane J Gracewski	32 Rock Hall Road	Colebrook
13-5	Dwight D & Carolyn A Pylica	40 Rock Hall Road	Colebrook
13-6	STAUFFER CHRISTINE L	36 Rock Hall Road	Colebrook
13-4	Richard & Joyce Hemingson	44 Rock Hall Road	Colebrook
13-25	Charles N R & Mary Ann Buchanan	173 Stillman Hill Road	Colebrook
13-27	Michael I Somers & Stella Flame	19 Rock Hall Road	Colebrook
14-38	Robert J & Shari-Lynn Cormier	165 Stillman Hill Road	Colebrook
14-7	Gary V & Amy R Grosclaude	143 Stillman Hill Road	Colebrook
14-2-2	NASH THOMAS	39 Pinney Street	Colebrook
14-2-1	REMISZEWSKI JULIE LYNN	Pinney Street	Colebrook

EXHIBIT 2



Legend

- Proposed Wind Turbine Location
- Proposed Clearing Limits
- Approximate Site Property Boundary

N

250 125 0 250
Feet

Vanasse Hangen Brustlin, Inc.

Wind Colebrook North
Proposed Clearing Limits
BNE Energy, Inc.
Winsted-Norfolk Road
Colebrook, Connecticut

BNE Energy Inc.
Producer of green clean energy

EXHIBIT 3

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FRANKLIN WILDLIFE
391 ROUTE 32
N FRANKLIN CT 06254
860-642-7239

January 20, 2011

Mr. Matthew Davison
Vanasse Hangen Brustlin, Inc.
54 Tuttle Place
Middletown, CT 06457-1847

re: proposed wind energy facility, Winsted-Norfolk Road, Colebrook

Dear Mr. Davison:

Your Habitat Survey report and additional materials were received on 11/18/10 regarding the state species of special concern, Smooth Green Snake (*Liochlorophis vernalis*). Again since you do not yet have your permits, the DEP Wildlife Division recommends that you review the recommendations provided at the following link:
http://www.fws.gov/habitatconservation/windpower/wind_turbine_advisory_committee.html
and consider conducting additional field surveys to address non-listed species that may occur at this site or fly over it and be impacted by a turbine.

Again, the Smooth Green Snake favors meadows and moist grassy fields along the forest edge where their coloration can camouflage them. Your report indicates that this proposed development, and the proposed staging areas, will not impact these preferred habitats. With this information, the DEP Wildlife Division concurs that the Smooth Green Snake will not be impacted.

The Wildlife Division also recommends that standard protocols for protection of wetlands should be followed and maintained during the course of the project. Additionally, all silt fencing should be removed after soils are stable so that reptile and amphibian movement between uplands and wetlands is not restricted. And all precautions should be taken to avoid degradation to wetland habitats including any wet meadows and seasonal pools. Please be advised that the Wildlife Division has not made a field inspection of the project nor have we seen detailed timetables for work to be done. Consultation with the Wildlife Division should not be substituted for site-specific surveys that may be required for environmental assessments. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested. If the proposed project has not been initiated within 12 months of this review, contact the NDDB for an updated review. If you have any additional questions, please feel free to contact me at Julie.Victoria@ct.gov , please reference the NDDB # at the bottom of this letter when you e-mail or write. Thank you for the opportunity to comment.

Sincerely,

Julie Victoria
Wildlife Biologist

cc: NDDB – 17983

EXHIBIT 4

Jeff Gruver, *Research Biologist*

PROFESSIONAL EXPERIENCE

2007-Present	*Research Biologist,* Western EcoSystems Technology, Inc., Laramie, Wyoming
2004-2007	*Research & Graduate Teaching Assistant,* University of Calgary, Canada
2002-2003	*Research Zoologist,* Wyoming Natural Diversity Database, Laramie, Wyoming
2000-2001	*Graduate Teaching Assistant,* University of Wyoming, Laramie, Wyoming
2000-2002	*Graduate Research Assistant,* University of Wyoming, Laramie, Wyoming
1999-2000	*Research Technician,* Western EcoSystems Technology, Inc., Laramie, Wyoming
1998	*Wildlife Biologist,* Weyerhaeuser Company, Springfield Oregon

EDUCATION

M.S.
University of Wyoming
Laramie, Wyoming
2002
Zoology and Physiology

Non-Degree
Oregon State University
Eugene, Oregon
1998
Wildlife Science

B.S.
The Pennsylvania State University
1993
Economics

SCIENTIFIC ORGANIZATION MEMBERSHIPS

The Wildlife Society

North American Symposium on Bat Research

SPECIALTY AREAS

Wind Power Studies: Design and implementation of studies to assess impacts of wind power development on bats and bat populations. Studies included use of acoustic detection and interpretation of echolocation data to assess relative risk to bats, meta-analysis of acoustic study results from broad spatial and temporal perspectives, exploration of quantitative methods for assessing species presence and relative abundance based on acoustics.

Habitat Conservation Planning: Attended Habitat Conservation Planning for Endangered Species Training (June 2010) at the USFWS National Conservation Training Center, Shepherdstown, WV.

Bat Ecology, Physiology and Conservation: Over 14 years experience studying bats in forested and non-forested habitats, primarily using radio-telemetry to investigate habitat relationships. Investigation of physiological and ecological responses of bats to environmental conditions.

SELECTED PROFESSIONAL PUBLICATIONS

Barclay, R.M.R., E.F. Baerwald, and **J.C. Gruver**. 2007. Variation in bat and bird fatalities at wind energy facilities: assessing the effects of rotor size and tower height. Canadian Journal of Zoology 85: 381-387.

Gruver, J.C. and D.A. Keinath (2006, October 25). Townsend's Big-eared Bat (*Corynorhinus townsendii*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/townsendsbigearedbat.pdf

Seville, R.S. and **J.C. Gruver**. 2004. Species of Eimeria (Apicomplexa: Eimeriidae) from bats (Chiroptera: Vespertilionidae) in central Wyoming. Journal of Parasitology 90(2):348-351.

Hayes, J.P., and **J.C. Gruver**. 2000. Vertical stratification of activity of bats in an old-growth forest in western Washington. Northwest Science. 74(2):102-108.