

**THE STATE OF NEW HAMPSHIRE
BEFORE THE
NEW HAMPSHIRE
SITE EVALUATION COMMITTEE**

DOCKET NO. 2010-01

**APPLICATION OF GROTON WIND, LLC
FOR A CERTIFICATE OF SITE AND FACILITY**

**THIRD SUPPLEMENTAL PREFILED TESTIMONY OF
ADAM J. GRAVEL
ON BEHALF OF
GROTON WIND, LLC**

December 22, 2010

1 **Qualifications**

2 **Q. Please state your name, business address and qualifications.**

3 A. My name is Adam J. Gravel. My business address is 30 Park Drive, Topsham,
4 Maine, 04086. My qualifications have not changed since the time my prefiled direct testimony
5 was submitted in this docket.

6 **Purpose of Testimony**

7 **Q. What is the purpose of your third supplemental prefiled testimony?**

8 A. The purpose of this testimony is to provide information regarding the potential
9 impacts on the natural environment, avian and wildlife species of the voltage step-up and other
10 facilities that will be needed to interconnect the 34.5 kV line bringing power from the Groton
11 Wind Project (“the Project”) with the regional power grid. These facilities are proposed to be
12 located in Holderness and are described in the Third Supplemental Prefiled Testimony of
13 Edward Cherian.

14

1 **Q. Have you visited the site of the above-referenced interconnection facilities to**
2 **assess potential impacts on the natural environment, specifically avian and bat species?**

3 A. Yes. I have visited the proposed location of the above-referenced interconnection
4 facilities with particular focus on existing habitat conditions for birds and bats. During my site
5 visit, I walked the entire parcel including the existing sand pit that will be used to access the
6 interconnection facility as well as the forested portion near the east edge of this parcel where the
7 proposed interconnection facility will be located. Additionally, I walked the existing
8 transmission corridor that is located along the eastern edge of this parcel.

9 **Q. Please describe the results of your site visit to the above-referenced**
10 **interconnection facilities.**

11 A. The parcel proposed for the Project's interconnection facilities is currently zoned
12 commercial with the majority of the site already cleared as a result of an existing and active sand
13 pit. As shown in the aerial photo attached to Mr. Cherian's Third Supplemental Prefiled
14 Testimony, the existing sand pit is located on the western portion of the parcel and encompasses
15 approximately two-thirds of the parcel. The sand pit is accessed by an existing gravel road that
16 extends to the eastern edge of the sand pit. The far eastern border of this parcel is also cleared
17 due to the existing double pole 115 kV transmission corridor. The northern border of the parcel
18 is paralleled by an existing metal plating and fabrication shop that could be seen or heard from
19 nearly any location within the proposed area of the interconnection facilities.

20 The proposed interconnection facilities will be located within the small forested portion
21 of the parcel between the existing sand pit to the west and the existing 115 kV transmission
22 corridor to the east. This area of the parcel is approximately 5 acres, of which, 2.5 acres will be

1 used for the interconnection facilities. This area has been harvested for timber within the last 5
2 years and is evident by a network of skidder roads and stumps. As a result of timber harvesting
3 activities, much of this area is young regenerating American beech (*Fagus grandifolia*), white
4 pine (*Pinus strobus*), and eastern hemlock (*Tsuga canadensis*) with some mature hemlock, white
5 pine, red pine (*Pinus resinosa*) and red oak (*Quercus rubra*) mixed in. The forest canopy is
6 relatively open as a result of timber harvesting activities.

7 Because my site visit occurred outside of the breeding season, very few birds were
8 observed. Black-capped chickadee (*Poecile atricapillus*) and white-breasted nuthatch (*Sitta*
9 *carolinensis*) were the only bird species observed during my visit. However, based on habitat
10 present at the site, I expect birds common to this region and habitat to occur on site, including
11 both early successional and late successional species. Consequently, common bird species that
12 may be present on site during the breeding season include, but are not limited to: black-throated
13 green warbler (*Dendroica virens*), dark-eyed junco (*Junco hyemalis*), blue jay (*Cyanocitta*
14 *cristata*), American robin (*Turdus migratorius*), veery (*Catharus fuscescens*), eastern wood-
15 pewee (*Contopus virens*), black-capped chickadee, white-breasted nuthatch, and American
16 goldfinch (*Carduelis tristis*). Habitat that could support state or federally listed bird species
17 during the resident period was not observed on site. Although the substation is proposed to be
18 located in the area of the parcel that is currently forested, that area is small in size, has been
19 recently harvested, and is surrounded by cleared and disturbed land.

20 Eight species of bats are known to occur in New Hampshire. These include; tri-colored
21 bat (*Pipistrellus subflavus*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*),
22 silver-haired bat (*Lasionycteris noctivagans*), big brown bat (*Eptesicus fuscus*), small-footed bat

1 (*Myotis leibii*), little brown bat (*Myotis lucifugus*), and northern long-eared bat (*Myotis*
2 *septentrionalis*). Of these, species within the genus *Myotis*, as well as silver-haired bats and big
3 brown bats, roost in dead trees or exfoliating bark and urban structures. These features were not
4 observed on site. It is possible that these bats may roost during the day in nearby structures in
5 housing developments and the metal plating shop but they are not expected to roost on site due to
6 the lack of standing dead trees and urban structures. Tri-colored bat, eastern red bat, and hoary
7 bats are known to roost in tree foliage so it is possible that some roosting habitat exists on site
8 but it is limited due to the size of the forest stand and the lack of standing water on site.
9 Although roosting habitat is not expected to occur on site, it is likely that some species will
10 forage for insects on site because much of the area is cleared. The habitat present on site is not
11 expected to support roosting habitat for any state or federally listed bat species.

12 **Q. In your opinion, will the above-referenced interconnection facilities have an**
13 **unreasonable adverse effect on the natural environment, specifically avian and bat species?**

14 A. No. Because this site is zoned commercial and consists of an existing sand pit
15 with associated gravel road and is adjacent to an existing metal plating shop, I do not expect that
16 the installation of the interconnection facilities will have an unreasonable adverse effect on the
17 natural environment, in particular avian and bat species. The existing cleared area for the sand
18 pit and 115 kV transmission line already fragments this parcel. Although the proposed
19 substation is located in the area of the parcel that is currently forested, it is small in size and has
20 been recently harvested. This small patch of forested area provides marginal habitat for forest
21 interior songbirds (which are more susceptible to habitat loss and fragmentation) compared to the
22 larger parcel of relatively unfragmented forest to the south of this parcel. The dimensions of the

1 substation will add a relatively small amount of additional edge habitat for breeding birds
2 relative to the already existing edge habitat created as a result of the existing 115 corridor, the
3 metal plating facility, and the sand pit.

4 Since much of the area is cleared, and the remnant forest stand on the parcel is marginal
5 roosting habitat for bats, I do not expect that the installation of the interconnection facilities will
6 have an impact on bats during the resident period. Additionally, bats are not known to collide
7 with structures such as the proposed interconnection facilities, therefore the addition of these
8 facilities are not expected to have an impact on bats during the migration season. Even with the
9 installation of the interconnection facilities I expect that bats will still use the site as they likely
10 do now for foraging.

11 The habitat in this parcel is not expected to support any state or federally listed bird or bat
12 species. The new location of the interconnection facilities does not change the conclusion
13 relative to the Project's impacts on birds which is set forth in the Stantec Risk Assessment. *See*
14 Appendix 28 to the Groton Wind Application. Although the Risk Assessment predicted that the
15 Project (i.e. the site in Groton where the turbines and associated facilities are proposed to be
16 built) posed a moderate risk to bats as a result of potential collision mortality, absent structures
17 that may put bats at risk of collision (i.e., wind turbines), the proposed interconnection facility is
18 expected to have a lower potential risk to bats than that described in the Risk Assessment for the
19 Project.

20 **Q. Does this conclude your testimony?**

21 A. Yes.