Kerlinger, P. and J. Dowdell. 2003. Breeding Bird Survey for the Flat Rock Wind Power Project, Lewis County, New York. Report Prepared for: Atlantic Renewable Energy Corporation. http://www.powernaturally.org/About/documents/FR%20DEIS%20App%20F%20Avian%20Supp%20Rpt%20120303.pdf

Executive Summary: A breeding bird study was conducted at the proposed Flat Rock Wind Power Project in Lewis County, New York. The study was conducted after a project-specific avian risk assessment recommended that such studies be conducted to determine whether federal or New York State listed species or New York State species of special concern were present. The study also focused on determining whether there were likely to be impacts to listed or common species resulting from construction of the wind power project. The object of the study was to identify the species, numbers of individuals, and distribution of those birds in the areas where turbines are being proposed. A total of 49 point counts were established and a GPS location recorded for each point. All point count locations were surveyed three times between June 26 and July 1, 2003, for a period of 5 minutes during which all birds seen or heard were recorded. Also recorded were the distance and direction of each bird from the observer. Surveys were commenced at around 04:45 hours and continued until about 10:00 hours. In addition, a species list was assembled of all birds observed incidental to the point counts. This was done to insure that all species that might nest within the project boundary were found. These incidental surveys were done on the same days as the point counts as well as on three additional days (June 20-22, 2003) while the habitat was assessed and point count locations were established. A total of 78 species were detected at the point count locations and an additional 24 species were detected incidental to the point count survey. No federal or New York State endangered species were detected, although 2 New York State threatened species were found. Eighteen observations of Northern Harriers (threatened) were made during point count surveys and 2 observations of Pied-billed Grebes were observed within the project boundary, but not at any of the point count locations. The former species probably nests in fields within the project boundary and the latter may nest at one of the small ponds on the site. The latter is not likely to nest near any of the turbines because these birds are highly wetland dependent. Two New York State species of special concern, Horned Lark (8 observations) and Vesper Sparrow (8 observations) and it is likely that both species have, at least, 4 nests at the point count locations. These birds are grassland adapted species and are may nest near urbines. The species observed at the point count sites were a mixture of forest (interior and edge), brushland, old field, and grassland birds, as well as a few species that are adapted to farm fields and residential areas. Grassland and forest edge/brushland birds dominated the avifauna. Grassland and old field birds accounted for one-quarter (25.6 %) of all sightings during the study. Bobolinks and Savannah Sparrows accounted for most of these birds (23.1% of all sightings). Mowing of hay was observed at the peak of nesting season and probably eliminates many, if not most, of the active nests during this period. The ten most numerous species are Breeding Birds at the Flat Rock Wind Project, New York – Kerlinger grassland and forest-edge/brushland species, accounting for 61.4% of all birds sightings. The remaining species are primarily forest edge/brushland species. A small proportion of birds found were forest and forest interior species.

It is unlikely that nesting birds will collide with turbines because few spend much time at the altitude of rotors. However, a few species, such as Horned Lark, Vesper Sparrow, and Bobolink, are known to fly high enough at times during aerial displays to potentially collide with turbines and are common among fatality lists at western wind power sites where these birds are very common. It is possible that very small numbers of Northern Harriers and, possibly, American Kestrels may collide with turbines, based on very small numbers of collisions at a few other wind power projects.

The avian community found along Rowsom Road (point counts #91-96) is comprised largely of forest interior species, including several that are thought to be sensitive to fragmentation. Many of these birds were seldom found at other locations within the project site. Impacts resulting from clearing and fragmentation of the Rowsom Road forests may jeopardize the integrity of this forest nesting community. It is possible that turbine construction would extirpate some of the interior forest species and open the forest for edge nesting species, thereby changing the avian community in this area.

Overall, collision impacts are not likely to be biologically significant because the numbers of birds involved is likely to be minimal. Habitat disturbance/displacement impacts to nesting birds will be varied with little impact likely to those nesting in brushland and forest edge and potentially greater disturbance to forest interior nesting birds. With respect to grassland nesting birds, impacts will be localized to the areas within 50-100 m around turbines, as demonstrated in other studies. Although these impacts are not likely to be biologically significant from a regional or

global perspective, post-construction studies may be needed quantify these impacts to local populations following construction of the project. The following recommendations were made:

The interior forest habitat along Rowsom Road should be excluded from the project because the birds and habitat there may be severely impacted via forest fragmentation. All permanent meteorology towers should be free-standing, without guy-wires. This will virtually eliminate the potential for collisions with locally nesting birds.
A long-term monitoring study may be initiated that would determine the disturbance/displacement impacts to locally nesting birds. Such a study would examine the abundance and use of grassland nesting songbirds (Bobolinks, Savannah Sparrows, and others) beneath and near turbines to determine the actual area of impact one year following construction, 5 years following construction, and 10 years following construction.