



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
6669 Short Lane
Gloucester, VA 23061

October 14, 2003

Ms. Laurette Tucker
United States Department of Agriculture
1606 Santa Rosa Road
Culpeper Building, Suite 238
Richmond, Virginia 23229-5014

Re: Highland New Wind Development,
LLC., Highland County, Virginia

Dear Ms. Tucker:

The U.S. Fish and Wildlife Service (Service) has reviewed your September 3, 2003 request for comments on the referenced project. Highland New Wind Development, LLC. has requested financial assistance through the Rural Energy Systems and Energy Efficiency Improvements Grant Program. The purpose of the proposal is to finance the construction of approximately thirty 1.65MW wind turbine generators on parcels of land known as Tamarack Ridge (8), Red Oak Knob (8), and Bear Mountain (14) in Highland County, Virginia. We offer the following comments pursuant to the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act (MBTA) of 1918 (40 Stat. 755; 16 U.S.C. 703-712), and the National Environmental Policy Act (42 U.S.C. 4371 et seq.).

Based on our review of the referenced project, it appears that the proposed project may affect species under the jurisdiction of the Service, including migratory birds and endangered species. Wind energy facilities can adversely impact wildlife populations, particularly birds and bats, and their habitats. Because of this potential harm to wildlife, in May of 2003, the Service developed an *Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines* (www.fws.gov/r9dhcbfa/windenergy.htm). This guidance includes recommendations for the proper evaluation of potential wind energy sites, proper location and design of turbines and associated structures within sites selected for development, and pre- and post-construction research and monitoring to identify and/or assess impacts to wildlife. We encourage your agency to review these guidelines in the preparation of the Environmental Assessment (EA).

The Service recommends that the applicant provide a more detailed location of the proposed project. The information should include the acreage, location and habitat type (forest, pasture, wetland) that will be impacted by the construction of the project. The EA should include a clearly stated purpose and need statement. A range of alternatives should be addressed that meet the need of the project and also include alternate sources of electricity. The alternatives analysis should provide a screening mechanism to determine which lands are environmentally suitable for

potential development for wind energy development. The following is a preliminary list of the major issues that the Service believes must be addressed in the EA in order for us to provide substantive comments on this proposal.

- Describe direct, indirect, permanent and temporary impacts to Federal trust resources (migratory birds, threatened and endangered species) due to project construction and operation, vibrations/electromagnetic fields, habitat loss, and disruption/elimination of migratory pathways and feeding areas.
- To assess avian and bat impacts, a comprehensive list of birds and bats known to utilize the project area year-round and their numbers should be compiled. Conduct pre-construction field studies using a combination of radar, acoustic, direct field sampling and visual observation to compile this list. This list should also include nocturnal and diurnal migrants. Comprehensive studies need to be conducted year-round to determine effects of the project from direct displacement of feeding and resting areas, collision mortality, and disruption of migratory pathways. The effects of inclement weather on the altitudinal migration patterns should also be evaluated. The Service would like to review the draft study design.
- Identify infrastructure improvements or other amenities needed to construct the project since these must be included in the evaluation of indirect effects of the project.
- Evaluate turbine placement, height, lighting, rotor speed and design to minimize impacts to avian species.
- Describe the procedure for decommissioning the structures, i.e., what will be the disposition of the facilities once they have reached their usable life or have been abandoned.
- Conduct a cumulative effects analysis of wind farms in the Appalachians.

All native migratory birds (*e.g.*, waterfowl, shorebirds, passerines, hawks, owls, vultures, falcons) are afforded protection under the Migratory Bird Treaty Act (MBTA) of 1940 (40 Stat. 755; 16 U.S.C. 703-712). The Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. While the Act has no provision for allowing unauthorized take, we recognize that some birds may be killed at structures such as wind turbines even if all reasonable measures to avoid it are implemented. The Service's Office of Law Enforcement carries out its mission to protect migratory birds not only through investigations and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impact to migratory birds. Although it is not possible under the MBTA to absolve individuals, companies, or agencies from liability (even if they implement avian mortality avoidance or similar conservation measures), the Office of Law Enforcement focuses on those individuals, companies, or agencies that take migratory birds with disregard for their actions and the law, especially when conservation measures have been developed but are not properly implemented.

In addition to the MBTA, Executive Order 13186 entitled, *Responsibilities of Federal Agencies to Protect Migratory Birds*, (FR Vol. 66, No. 11, Jan. 17, 2001) states in part that federal agencies shall:

- support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- restore and enhance the habitat of migratory birds, as practicable.

Endangered Species Act Comments

The Virginia northern flying squirrel (*Glaucomys sabrinus fuscus*), federally listed endangered, has been documented in the vicinity of the project. The Virginia northern flying squirrel is usually associated with boreal habitats, especially spruce-fir and northern hardwood forests (USFWS 1990). In Virginia, all records for this species are at elevations above 3000 feet. Habitat fragmentation, destruction, or alteration has been identified as a threat to this species (USFWS 1990). The Service recommends that the applicant survey the project area for suitable habitat for the Virginia northern flying squirrel. As described in the Recovery Plan, suitable habitat is described as boreal conifer-hardwood forest, comprised of red spruce and Fraser fir, associated with American beech, sugar or red maple, yellow birch, hemlock and black cherry.

The Indiana bat (*Myotis sodalis*) and the Virginia big-eared bat (*Corynorhinus townsendii virginianus*), both federally listed endangered, may occur in the project area. Bat mortality at wind turbine sites has been documented during late summer and early fall migration and during inclement weather. The potential for adverse effects to bats at this particular location is unknown. However, recent bat mortality observations at a wind turbine site in West Virginia (2003) have documented over 350 dead bats, comprising six different species. To determine the potential risk, we recommend that two years of pre-construction monitoring of bats be conducted at this location using radar, acoustical studies, and other appropriate sampling techniques. A draft study design should be submitted to this office for review.

Section 7 (a)(2) of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) requires Federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any Federally listed threatened or endangered species or result in the destruction or adverse modification of designated critical habitat. In the event that a Federal agency determines that its action "may affect" a listed threatened or endangered species or designated critical habitat, the agency is required to consult with the Service regarding the degree of impact and measures available to avoid or minimize the adverse effects.

The attached lists contain individuals who are qualified to conduct surveys for the species listed above. These lists may not include all individuals qualified or authorized to survey for these species. If these individuals are not available, please contact this office. To ensure that an adequate survey is conducted, the surveyor names and proposed survey design should be

submitted to this office before any survey is conducted. Please send copies of all survey results to this office or inform this office if a survey will not be conducted. If the survey determines that any listed or proposed species or critical habitat are present in the vicinity of the project, the United States Department of Agriculture (USDA) has the responsibility to determine if the project may affect the species. Should the USDA determine that the species may be affected by the project, the consultation procedures under Section 7 of the ESA (50 CFR Part 402) must be implemented by the USDA.

In addition to the Virginia northern flying squirrel, the Indiana bat, the Virginia big-eared bat, the Southern water shrew (*Sorex palustris punctulatus*), state listed endangered, has been documented in the project vicinity. The Indiana bat, the Virginia big-eared bat and the Southern water shrew are also protected under the Virginia Endangered Species Act and you should contact the following agency for more information:

Virginia Department of Game and Inland Fisheries
Environmental Services Section
P.O. Box 11104
Richmond, VA 23218
(804) 367-8999

If you have any questions or need further assistance concerning this project, contact Mr. David Byrd at (804) 693-6694 at extension 133 or Ms. Kim Marbain at extension 126.

Sincerely,

Karen L. Mayne
Supervisor
Virginia Field Office

cc: VDGIF, Richmond, VA (Brian Moyer)
DCR-NH, Richmond, VA (René Hypes)