United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 American Blvd E.
Bloomington, Minnesota 55425-1665

May 11, 2010

Bruce Jennings, P.E.
Dewild Grant Reckert and Associates Co.
1302 South Union Street
P.O. Box 511
Rock Rapids, Iowa 51246-0511

Re: Getty Wind (LLC) Review, Stearns County, Minnesota
FWS TAILS #32410-2010-FA-0068

Dear Mr. Jennings:

This is in response to your March 18, 2010, letter requesting our review of the proposed Getty Wind Project in Stearns County, Minnesota. The proposed project includes the installation of 28 wind turbines, and associated infrastructure including roads, transmission lines, and staging areas. The macro-siting project boundary provided to our office covers a total area of approximately 5,440 acres located in all or parts of sections 31 – 33, Township 126 North, Range 34 West, and sections 4 – 9 and 16 – 18, Township 125 North, Range 34 West, Stearns County, Minnesota.

The following comments are being provided pursuant to the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act, and Fish and Wildlife Act of 1956. This information is being provided to assist you in making an informed decision regarding wildlife issues, site selection, project design, and compliance with applicable laws.

The Service has been in contact with the DNR as they have developed recommended survey protocols and site evaluations that will satisfy both state and federal wildlife statutes, and this letter describes these measures, in part. We appreciate your early coordination with both the Service and the DNR, and recommend continued collaboration on this project to ensure wildlife and habitat issues are fully and appropriately addressed.

The Fish and Wildlife Service supports the development of wind power as an alternative energy source. However, wind farms can have negative impacts on wildlife and their habitats if not sited and designed with potential wildlife and habitat impacts in mind. Selection of the best sites for turbine placement is enhanced by ruling out sites with known, high concentrations of birds and/or bats passing within the rotor-swept area of the turbines or where the effects of habitat fragmentation will be detrimental. In support of wind power generation as a wildlife-friendly,

renewable source of power, development sites with comparatively low bird, bat and other wildlife values would be preferable and would have relatively lower impacts on wildlife.

The Service recommends that impacts to streams and wetlands be avoided, and buffers surrounding these systems be preserved. Streams and wetlands provide valuable habitat for fish and wildlife resources, and the filtering capacity of wetlands helps to improve water quality. Naturally-vegetated buffers surrounding these systems are also important in preserving their wildlife-habitat and water quality-enhancement properties. Furthermore, forested riparian systems (wooded areas adjacent to streams) provide important stopover habitat for birds migrating through the region.

The proposed activities do not constitute a water-dependent activity, as described in the Section 404(b)(1) guidelines, 40 CFR 230.10. Therefore, practicable alternatives that do not impact aquatic sites are presumed to be available, unless clearly demonstrated otherwise. Therefore, before applying for a Section 404 permit, the client should closely evaluate all project alternatives that do not affect streams or wetlands, and if possible, select an alternative that avoids impacts to the aquatic resource. If water resources will be impacted, the St. Paul District of the Corps of Engineers should be contacted for possible need of a Section 404 permit.

Federally-listed Threatened, Endangered, and Candidate Species

Because of the potential for wind power projects to impact federally-listed species, they are subject to the Endangered Species Act (16 U.S.C. 1531-1544) section 9 provisions governing "take," similar to any other development project. "Take" incidental to a lawful activity may be authorized through the initiation of formal consultation, if a Federal agency is involved. If a federal agency, federal funding, or a federal permit are not involved in the project, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA may be obtained upon completion of a satisfactory habitat conservation plan for the listed species. However, there is no mechanism for authorizing incidental take after the project is constructed and operational.

Currently there are no federally-listed candidate, threatened, or endangered species present within Stearns County. At any point during project planning, construction, or operation should additional information on listed or proposed species become available, or new species are listed that may be affected by the project, consultation should be reinitiated with the Twin Cities Field Office.

The Poweshiek skipper has been identified within the Trisko Waterfowl Production Area (WPA), which is within the proposed project boundary. The Poweshiek skipper has experienced rapid population decline in Minnesota, and the Service is currently analyzing the possibility of listing the species as a candidate under ESA. To minimize any potential impacts to the species or its habitat, placement of turbines within grassland habitats should be avoided. Please contact Rich Davis of our office for assistance in identifying potential Poweshiek skipper habitats within or adjacent to the project boundary. Contact information is provided at the end of this letter.

Migratory Birds

The Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) implements four treaties that provide for international protection of migratory birds. The MBTA prohibits taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. Bald and golden eagles are afforded additional legal protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). Unlike the Endangered Species Act, neither the MBTA nor its implementing regulations at 50 CFR Part 21, provide for permitting of "incidental take" of migratory birds.

Monitoring should be conducted to assess the daily movement patterns of any species of raptor whose nest is located within the proposed project site or within two miles of the proposed project site. During the incubation and rearing stage, the location of adult birds should be tracked for at least 4 hours twice per week until consistent activity patterns are established. These monitoring dates will be determined based upon identified species within two miles of the project boundary. Alternate monitoring strategies that assess the degree to which nesting birds utilize the proposed project site will be considered. Information collected will be used to document how frequently the birds enter the proposed project site, and this information can be utilized during micro-siting to minimize substantial risks to birds within close proximity of the project site. There is a record of a bald eagle nest approximately 4 miles northeast of the proposed project site. During other recommended survey work, the project proponent or their consultant should at a minimum take note of any bald eagles flying through or using habitat within the proposed project area, and note the direction of flight, frequency, and foraging areas being utilized.

Shoreland bird and waterfowl species may be prevalent within the proposed project area, as there are wetland complexes within and adjacent to the proposed project boundary. The proposed turbine siting map you provided to our office on March 18, 2010, indicated turbines would be located between the Trisko WPA (Sections 6 and 31) and the Kenna WPA (Sections 9 and 16). There are also turbines proposed to be placed between the aforementioned WPAs and a wetland complex located adjacent to the southwest corner of the proposed project boundary.

The Service recommends observational bird surveys for the Getty Wind Project site to document species, direction of flight, and height of flight. At a minimum, survey points should be selected between the Trisko and Kenna WPAs, and also between both WPAs and the wetland complex adjacent to the southwest corner of the proposed project boundary. There is concern that birds utilizing these WPAs may have an increased likelihood of being struck by a turbine as they move from one WPA to another. The Service would like the project proponent to utilize this flight survey data to assist them in micro-siting the individual turbines.

We also recommend a habitat survey throughout the proposed project site. There are a number of records of upland sandpiper and marbled godwit in the vicinity of the project. Should the habitat survey confirm habitat for any of these aforementioned species, breeding bird surveys may be necessary to determine the utilization of habitat areas within the proposed project site.

The Service's Office of Law Enforcement serves its mission to protect federal trust wildlife species in part by actively monitoring industries known to negatively impact wildlife, and assessing their compliance with Federal law. These industries include oil/gas productions sites, cyanide heap/leach mining operations, industrial waste water sites, and wind power sites. There is no threshold as to the number of birds incidentally killed by wind power sites, or other industry, past which the Service will seek to initiate enforcement action. However, the Service is less likely to prioritize enforcement action against a site operator that is cooperative in seeking and implementing measures to mitigate take of protected wildlife.

Migratory Bird Concentration Areas and Conservation Lands

We recommend that no turbines be located within ¼ mile of Conservation Reserve Program, Wetland Reserve Program, or other similar federally- or state-funded restoration projects.

Service-owned Lands

The Trisko WPA is within the proposed project site (Sections 6 and 31). The Kenna WPA is located directly adjacent to the proposed project boundary of the Getty Wind Project (Sections 9 and 16). The Service recommends that during micro-siting no turbines be placed within ½ mile of any WPAs. If feasible, a one-mile setback from WPAs is preferred, which will reduce the potential for striking migratory birds utilizing the open water wetland and grassland habitats located in or associated with these areas.

If turbine locations are selected within 1 mile of any WPA, Getty Wind should complete point count surveys at these turbine locations prior to construction, and post-construction mortality surveys should be completed at these turbine locations.

Interim Service Guidelines

Research into the actual causes of bat and bird collisions with wind turbines is limited. To assist Service field staff in review of wind farm proposals, as well as aid wind energy companies in developing best practices for siting and monitoring of wind farms, the Service published *Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines* (2003). We encourage any company/licensee proposing a new wind farm to consider the following excerpted suggestions from the guidelines in an effort to minimize impacts to migratory birds and bats.

1) Pre-development evaluations of potential wind farm sites to be conducted by a team of Federal and/or State agency wildlife professionals with no vested interest in potential sites;

2) Rank potential sites by risk to wildlife;

3) Avoid placing turbines in documented locations of federally-listed species;

4) Avoid locating turbines in known bird flyways or migration pathways, or near areas of high bird concentrations (i.e., rookeries, leks, refuges, riparian corridors, etc.);

5) Avoid locating turbines near known bat hibernation, breeding, or maternity colonies, in migration corridors, or in flight paths between colonies and feeding areas;

6) Configure turbine arrays to avoid potential avian mortality where feasible. Implement storm water management practices that do not create attractions for birds, and maintain contiguous habitat for area-sensitive species;

7) Avoid fragmenting large, contiguous tracts of wildlife habitat;

8) Use tubular supports with pointed tops rather than lattice supports to minimize bird perching and nesting opportunities;

9) If taller turbines (top of rotor-swept area is greater than 199 feet above ground level) require lights for aviation safety, the minimum amount of lighting specified by the Federal Aviation Administration (FAA) should be used. Unless otherwise requested by the FAA, only white strobe lights should be used at night, and should be of the minimum intensity and frequency of flashes allowable. Red lights should not be used, as they appear to attract night-migrating birds at a higher rate than white lights;

10) Adjust tower height to reduce risk of strikes in areas of high risk for wildlife.

The full text of the guidelines is available at *http://www.fws.gov/habitatconservation/wind.pdf.* The Service believes that implementing these guidelines may help reduce mortality caused by wind turbines. We encourage you to consider these guidelines in the planning and design of the project. We particularly encourage placement of turbines away from any large wetland, stream corridor, or wooded areas, and avoiding placing turbines between nearby habitat blocks.
If this proposal is to move forward, we strongly recommend that on-the-ground surveys using radar, infrared, and/or acoustic monitoring be conducted during the peak of spring and fall bird migrations and during the breeding season over a period of several years (consistent with the Service's *Interim Guidelines, op. cit.)* to identify breeding and feeding areas and migration stopover sites. Observations made from greater than ¼ mile of target areas are likely to be insufficient to accurately assess bird use of the landscape, particularly if the observer is moving. Generalized ground research survey protocols, such as those followed in the Waterfowl Breeding Population and Habitat Survey (Smith 1995) and the North American Breeding Bird Survey (Pardieck 2001), among others, often do not accept observations made at greater than ¼ mile from the observer due in part to high probabilities of missed detections (R. Russell, personal communication). Furthermore, spring and fall raptor migration surveys may be necessary, as will surveys to document movement patterns of bald eagles that may use the project area or surrounding habitat. We request that any on-the-ground survey protocols are consistent with the Service's Interim Guidelines (2003), and be coordinated with this office and with the Minnesota Department of Natural Resources prior to implementation.

Pre-construction Surveys

The Service recommends that Getty Wind and their consultants conduct rigorous assessments of bird and bat use of the area before proceeding with project design (i.e., preliminary siting of specific turbines). We strongly recommend development of a protocol for bird/bat surveys at this site, and specific consideration should be given to the potential for occurrence of marbled godwit and upland sandpiper within the proposed project area. We encourage Getty Wind to maintain consistency with other wind farm survey protocols, thus allowing us to compare results with other wind farm survey data. These comparisons will potentially provide valuable information that can be applied in future wind farm/turbine macro- and micro-siting.

In addition to on-the-ground (point or transect) surveys, we recommend that the assessments include the use of mobile, horizontally- and vertically-scanning radar to study the direction, altitude, and numbers of flying animals moving through and within the project area during the fall and spring migration of birds and bats, and the breeding period of birds in the area. We recommend that radar be employed 24 hours a day, 7 days a week during migration, and at a minimum from dawn to dusk during the breeding period. Radar studies are providing useful information in evaluating bird and bat activity at wind generation sites in Wisconsin, Vermont, Massachusetts and other locations. The use of radar coupled with ground-truthing (surveys) can provide a more complete assessment of bird and bat use of a potential wind project area than point counts or other traditional survey methods alone. Such information could inform project design and minimize potential mortality associated with the project.

We recommend installation of two AnaBat SDI detectors per meteorological tower to be used within the project area, and data should be collected from May 15 - November 15, 2010 and 2011. One AnaBat detector should be mounted at 5 meters above ground, and the other should be mounted as close to the rotor-swept area as possible. The AnaBat's sensitivity should be adjusted to detect a calibration tone at 20 meters. AnaBat units must monitor from 0.5 hour before sunset until 0.5 hour after sunrise. This will help to gauge bat activity and to some degree, to determine bat species/guild composition within the project area during spring and fall migration and the maternity season.

Post-construction Surveys

The Service recommends the project be monitored post-construction to determine impacts to migratory birds and bats. A specific post-construction monitoring plan should be prepared and reviewed by the Service and should include a scientifically robust, peer reviewed methodology of mortality surveys. Generally the Service recommends that surveys be conducted for a minimum of three years following construction to assess impacts to birds and bats. The duration of post-construction surveys is project specific and will be determined based upon pre-construction survey results. We also recommend that the post-construction mortality studies be conducted by an independent third party contractor with expertise in bird/bat mortality monitoring. Results of mortality surveys and other forms of monitoring should be used to adjust operations to reduce mortality if necessary and feasible, as well as improve design and siting of future wind generation facilities. **The Developer or its contractor should provide to this**

office each year, no later than December 31, copies of annual bird/bat mortality monitoring reports.

Infrastructure Considerations

Development of transmission infrastructure associated with wind facilities also poses risks to wildlife. These risks include potential avian mortality, particularly electrocution of raptors (hawks, eagles, kites, falcons, and owls), that could occur when they attempt to perch on uninsulated or unguarded power poles. Recently published information about which types of power line poles and associated hardware (e.g., wires, transformers and conductors) pose the greatest danger of electrocution to raptors and what modifications can be made to reduce this threat can be found on the internet at *http://www.aplic.org/*.

Thank you for the opportunity to provide comments on this proposed project. Please contact me at (612) 725-3548, ext. 2201, or Rich Davis, Fish and Wildlife Biologist, at (612) 725-3548, ext. 2214, if we can be of further assistance.

Sincerely,

Tony Sullins
Field Supervisor

cc: Beverly Meyer, USFWS Litchfield WMD
Kevin Mixon, MN DNR