



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501



NOV 10 2009

Mr. Matt Marsh
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, Montana 59107-5800

RECEIVED

NOV 12 2009

PUBLIC SERVICE COMMISSION

Dear Mr. Marsh:

This is in response to your September 30, 2009, request for environmental information in relation to public scoping for the preparation of an Environmental Assessment (EA) for the proposed Baldwin Wind Energy Center, LLC (Baldwin Wind) 99 megawatt (MW) wind power project near Baldwin, North Dakota. The proposed project is located in Burleigh County, North Dakota:

T. 141 N., R. 78 W., Section 19
T. 141 N., R. 79 W., Sections 2-5, 8-15, 24
T. 142 N., R. 79 W., Sections 19-23, 26-30
T. 142 N., R. 80 W., Section 25

Western Area Power Administration (Western) is the lead Federal agency for the proposed action. We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250), Executive Order 11990 "Protection of Wetlands", Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and the National Environmental Policy Act (NEPA) (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended). The U.S. Fish and Wildlife Service (Service) requests that the recommendations provided in this letter be addressed in Western's EA for the Baldwin Project.

The Service holds certain resources in trust and manages them for the benefit of the American people. These resources include migratory birds, inter-jurisdictional fish, federally-listed threatened and endangered species of plants and animals and their habitats, and units of the National Wildlife Refuge system. One goal of Service policy is that conservation of fish and wildlife resources receive equal consideration with other features of resource development, and that conservation actions are coordinated with those other forms of development. Another goal is to conserve, protect, and enhance fish and wildlife and their habitats, and to facilitate the

4 **PU-09-668** Filed: 11/12/2009 Pages: 7
Letter Comments on Proposed Project

balanced development of the Nation's natural resources. When planning an activity, project proponents should give careful consideration to potential impacts to these trust resources and compliance with the laws mentioned above.

Migratory Birds

Adequate consideration for avian and other wildlife resources early in the site evaluation process can help to minimize impacts and facilitate project review. Although current wind turbine technology and proper siting can help to minimize the incidence of avian and bat deaths due to blade, aerial line, and tower strikes, the potential for direct mortality of some migratory birds and bats will remain. Wind power developers, in concert with the Service, can help to ensure that projects proceed with as little impact to migratory birds as possible. This can be accomplished by gathering information on avian resources as they relate to project siting and by implementing measures to minimize impacts to migratory birds from the construction and operation of the wind facility.

Wind developers are encouraged to avoid impacts to prairie and other native habitats to the maximum extent practicable. Avoidance of impacts can be most effectively achieved by taking a landscape-scale view, beginning with the process of prospecting for suitable sites for wind power development. Companies should assess not only those factors that indicate favorable conditions for development, such as a consistent wind resource, access to transmission, willing landowners, available financing, etc., but also anticipated impacts to wildlife and their habitats. Equal consideration should be accorded to wildlife resource conservation as to other features of development. When considering a project in a particular wind resource area, companies should use all available tools to ensure they have taken all practicable steps to avoid impacts to native habitats. This can be accomplished by utilizing GIS products depicting significant areas of contiguous prairie to site development in areas that are already impacted or fragmented. This analysis and potential site comparison should be accomplished prior to making any significant financial commitments, including entering into lease agreements with landowners. The Service's Interim Wind Turbine Siting Guidelines encourage project proponents to conduct a Potential Impact Index (PII) analysis on several potential sites within wind resource areas to assist in their selection of a wind power site that minimizes the potential to impact migratory birds and other wildlife. If the Service's interim guidelines were not used to evaluate potential sites for development, the Service recommends that the developer or Federal agency use another method that compares avian and other wildlife resource impacts on several sites before selecting a particular site for development. The alternatives analysis for the project should describe the potential project sites that were evaluated and why they were rejected or selected based on potential trust resource impacts.

The Service has coordinated with the Avian Power Line Interaction Committee (APLIC) to develop guidelines to assist companies in formulating Avian Protection Plans (APP). These plans are utility-specific and designed to provide a structured way for a company to reduce avian mortality resulting from interactions with electric utility facilities (e.g. collisions and

electrocutions), but we suggest they may be adapted to wind energy facilities as well. The APP can be tailored to each utility's industry-specific and site specific wildlife needs, while in the process furthering avian conservation and improved reliability and customer service. Implementing the principles contained in these APP guidelines will greatly reduce avian risk as well as risk of enforcement under the Migratory Bird Treaty Act (MBTA). The guidelines can be accessed from the Service's website at <http://www.fws.gov/migratorybirds/>. We strongly encourage the project developer of the proposed wind energy facility to investigate the formulation of an APP or if bats may also be affected by the project, an Avian and Bat Protection Plan (ABPP). An example of a completed ABPP can be found at Iberdrola Renewables' website at http://www.iberdrolarenewables.us/pdf/Signed_ABPP_10-28-08.pdf.

To minimize the electrocution hazard to birds, the Service, with support from the Rural Utilities Service, recommends that new or updated overhead power lines be constructed in accordance with the current guidelines for preventing raptor electrocutions. The recommended guidelines can be found in "2006 Suggested Practices for Avian Protection on Power Lines". To increase power line visibility and reduce bird fatalities resulting from collisions with power lines, the Service recommends all new power lines that cross or run adjacent to rivers or large wetlands be modified according to "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994". Both publications can be obtained by writing or calling the Edison Electric Institute, P.O. Box 266, Waldorf, Maryland 20604-0266, (1-800-334-5453) or visiting their website at www.eei.org.

The Migratory Bird Treaty Act prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for allowing unintentional take, the Service realizes that some birds may be killed by wind power towers or power lines even if all reasonable measures to protect them are used. The Service's Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and industries that have taken effective steps to minimize their impacts on migratory birds, and by encouraging others to enact such programs. It is not possible to absolve individuals, companies, or agencies from liability even if they implement avian mortality avoidance or similar conservation measures. However, the Office of Law Enforcement focuses its resources on investigating and prosecuting individuals and companies that take migratory birds without regard for their actions or without following recommendations such as this to avoid take. Siting, construction and operating wind facilities, in accordance with the recommendations provided by the Service, and implementing an APP or ABPP that has been reviewed and approved by the Service, are strong indicators of a good faith effort by wind companies to reduce the impacts to migratory birds.

To avoid impacts to migratory birds or other wildlife during the breeding season (February 1 to July 15), schedule construction for late summer or fall/early winter. If work is proposed to take place during the breeding season or at any other time which may result in the take of migratory birds, eggs, or active nests, the Service recommends that the project proponent arrange to have a qualified biologist conduct a field survey of the affected habitats to determine the absence or presence of nesting migratory birds. If nesting migratory birds are found, we request you contact

this office, suspend construction, or take other measures, such as maintaining adequate buffers, to protect the birds until the young have fledged. The Service further recommends that field surveys for nesting birds, along with information regarding the qualification of the biologist(s) performing the surveys, and any avoidance measures implemented at the project site, be thoroughly documented and that such documentation be shared with the Service and maintained on file by the project proponent at least until such time as construction on the proposed project has been completed.

Threatened and Endangered Species

A list of Federally threatened and endangered species that may occur within the proposed project's area of influence is enclosed (enclosure 1). This list fulfills requirements of the Fish and Wildlife Service under Section 7 of the Endangered Species Act.

If a Federal agency, in this case Western, authorizes, funds, or carries out a proposed action, the responsible Federal agency, or its designated agent, is required to evaluate whether the action "may affect, likely to adversely affect" listed species. If the Federal agency determines the action "may affect, likely to adversely affect" listed species, then the responsible Federal agency shall request formal section 7 consultation with this office, or work with this office to remove the likely adverse effects before proceeding. If the evaluation shows a "no effect" determination for listed species, further consultation is not necessary. If a private entity receives Federal funding for a construction project, or if any Federal permit is required, the Federal agency may designate the fund recipient or permittee as its agent for purposes of informal section 7 consultation.

The Aransas Wood Buffalo Population (AWBP) of whooping cranes is the only self-sustaining migratory population of whooping cranes remaining in the wild. These birds breed in the wetlands of Wood Buffalo National Park in Alberta and the Northwest Territories of northern Canada, and overwinter on the Texas coast. Whooping cranes in the AWBP annually migrate through North Dakota during their spring and fall migrations.

Endangered whooping cranes have been documented using stopover habitat in the vicinity of this proposed wind resource area. The proposed wind project area is located in that portion of the whooping crane migration corridor that includes 75% of all confirmed whooping crane sightings in North Dakota (enclosure 2). The presence of suitable roosting and feeding habitat for whooping cranes indicates the potential for whooping crane presence in the proposed project area. A wind energy project in this wind resource area has the potential to affect whooping cranes during their annual spring and fall migration through North Dakota. Potential effects may be direct (e.g. collision mortality) or indirect (e.g. avoidance of the site resulting in cranes seeking alternate habitat). The interactions of whooping cranes with wind turbines and wind farms are currently not fully known, although it is expected that these large birds with relatively low maneuverability are susceptible to mortality via collisions with turbines. Currently, collisions with power lines are the greatest known source of mortality for fledged whooping cranes, and have accounted for the death or serious injury of at least 46 whooping cranes since 1956.

Fish and Wildlife Service Property Interests

The Service administers Waterfowl Production Areas owned in fee title as well as wetland and grassland easements throughout North Dakota. A review of Service realty records for the proposed project area indicates Service wetland easements interests in T. 141 N., R. 78 W., Section 19, N½., Burleigh County. The Service has an ongoing easement acquisition program and we recommend that for Burleigh County, contact Paul VanNingen, Wildlife Refuge Manager, Long Lake National Wildlife Refuge, 12000 353rd Street SE, Moffit, North Dakota 58560-9740, (701-387-4397), for more specific information relative to Service easements and up to date realty records.

The primary responsibility in protecting these easements is to review all proposed uses to ensure that the requests are compatible with Service easement regulations and various laws and policies. Therefore, these comments and suggestions are made in an attempt to accomplish three goals: 1) avoid impacts to Service grassland and wetland easements in the project area as much as possible; 2) if unavoidable, ensure that any proposed turbine and associated infrastructure impacts (roads, buried collection lines, transmission lines, sub-stations, etc.) on any Service easement areas are kept to an absolute minimum; and 3) investigate all potential alternatives to eliminate or reduce impacts to easement areas to protect the integrity of the easement.

High Value Habitat Avoidance

The proposed project area is located in the Coteau Slope region of North Dakota and includes areas of native mixed-grass prairie. Since the 1800s, North Dakota has lost approximately 75 percent of its native grasslands, primarily due to crop production. The Service recommends avoiding construction or disturbance on native prairie areas.

Native prairie has significant natural resource values including:

1. Provides habitat for a number of migratory and resident grassland birds whose populations are declining.
2. Provides nesting habitat for millions of waterfowl.
3. Contains 200-300 plant species, which provide genetic diversity important to agriculture and medicine.
4. Provides habitat for thousands of insects including the Dakota skipper, a candidate species for listing under the ESA, and other butterflies (Ex: Regal fritillary, Tawny crescent).
5. Crucial for soil and water conservation.
6. Provides recreational opportunities (hunting, bird watching/wildlife observation, hiking).
7. Living laboratories for scientific research.

Our review of NWI maps indicate that wetland areas are located within the project area. NWI data can be accessed directly by visiting their website at wetlands.fws.gov). Section 404 of the Clean Water Act regulates placement of fill materials in certain wetlands. A Corps of Engineers'

404 permit may be required if fill material will be placed in aquatic sites including wetlands. Contact Mr. Dan Cimarosti, Regulatory Office, Corps of Engineers, 1513 South 12th Street, Bismarck, North Dakota 58504 (701-255-0015), to determine their permit requirements. If a 404 permit is required, the Service will provide recommendations on this project to the Corps.

Other high value wildlife habitat types in North Dakota include wooded draws and riparian forests. We recommend that avoiding construction of wind towers and appurtenant facilities in the above habitat types whenever possible.

Construction activities should be conducted in a manner that will minimize impacts to the wildlife and the existing habitat in the project area. To help avoid impacts, we recommend that you:

- Avoid construction in native prairie, if possible, and reseed disturbed native prairie with a comparable native grass/forb seed mixture. Obtain seed stock from nurseries within 250 miles of the project area to insure the particular cultivars are well adapted to the local climate.
- Minimize grassland disturbance by using fewer, larger turbines and limiting new road construction.
- Use underground transmission lines between turbines, as well as to the primary substation. If construction of overhead transmission lines are unavoidable, install and maintain appropriate visual line marking devices on all new line and an equal length of existing line to reduce the potential for avian collision mortality.
- Design meteorological towers to be self standing (no guywires). If towers must be guyed, install and maintain appropriate visual line marking devices on the new towers and an equal number of existing towers to reduce the potential for avian collision mortality
- Locate appurtenant facilities to avoid placement of fill in wetlands along the route.
- Install and maintain appropriate erosion control measures to reduce sedimentation and water quality degradation of wetlands and streams near the project area.
- Replace unavoidable wetland losses with functionally equivalent wetlands.

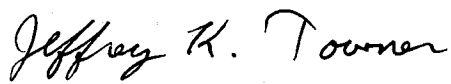
Research, Monitoring, and Assessment

We encourage project proponents to conduct, at a minimum, three years of collision monitoring studies designed to determine the effect of several factors, such as site selection, turbine designs, the layout of wind plants, wind plant operations, habitat alteration, and changes in available perching and nesting sites, on bird deaths. Annual reports outlining the results of these monitoring studies should be submitted to this office. The Avian Subcommittee of the National Wind Coordinating Committee (NWCC) has developed a guidance document to assist wind energy developers in designing studies that will produce credible and comparable results of avian interaction with wind power plants. The NWCC document, "Studying Wind Energy/Bird Interactions: A Guidance Document. Metrics and methods for determining or monitoring potential impacts on birds at existing and proposed wind energy sites," can be obtained by

contacting the National Wind Coordination Committee, c/o RESOLVE, 1255 23rd Street, Suite 275, Washington, D.C. 20037, or by visiting their website at www.nationalwind.org.

Thank you for the opportunity to provide comments. Please provide our office with a copy of the Draft Environmental Assessment for pre-approval review. If you require further information as project planning proceeds, please contact Terry Ellsworth of my staff, or contact me directly, at (701) 250-4481, or at the letterhead address.

Sincerely,



Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

Enclosures (2)

- cc: Long Lake WMD, Project Leader
(Attn: E. Meendering)
Ecological Services, Fish & Wildlife Service, Denver
Branch Conservation Planning Assistance (ERT), Washington DC
Office of Environmental Policy & Compliance, Washington DC
Regulatory Office, Army Corps of Engineers, Bismarck
(Attn: D. Cimarosti)
- ND Public Service Commission, Bismarck
Director, ND Game & Fish Department, Bismarck
(Attn: M. McKenna)