



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
3425 Miriam Avenue  
Bismarck, North Dakota 58501



AUG 25 2011

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

PUBLIC SERVICE COMMISSION

Dear Mr. Marsh:

This is in response to your July 20, 2011, request for environmental information in relation to public scoping for the preparation of an Environmental Impact Statement (EIS) for the proposed Wilton IV Wind Energy Center. The proposed project, a 99 megawatt (MW) wind energy facility located in Burleigh County, North Dakota, would interconnect with Western Area Power Administration's (Western) transmission line. Therefore, Western is the lead Federal agency for the proposed action. The proposed project would consist of 62 wind turbine generators, an underground power collection system, a connector road system, and an operations and maintenance facility. The wind turbine towers would be approximately 426 feet tall, from the tip of the blade to the base of the tower. The wind turbine rotors would be 328 feet in diameter. Electrical power from the proposed facility would interconnect into Western's existing Hilken Switching Station near Wilton, North Dakota. Construction of the Wilton IV Wind Energy Center is proposed to begin in the summer of 2012.

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).

### General Comments

The U.S. Fish and Wildlife Service (Service) holds certain resources in trust and manages them for the benefit of the American people. These resources include migratory birds, interjurisdictional 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 to facilitate the balanced development of the Nation's natural resources.

Adequate consideration for avian and other wildlife resources early in the site evaluation process can help to minimize impacts and facilitate project review. Informed site selection is possibly the most important step in avoiding and minimizing impacts to wildlife. 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 turbine 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. The Service's Interim Wind Turbine Siting Guidelines are enclosed to assist in project planning (enclosure 1). We encourage the project proponents to conduct a Potential Impact Index (PII) analysis on several potential sites within wind resource areas to assist in the selection of a wind power site that minimizes the potential to impact migratory birds. Please inform this office whether or not you plan to use the Service's 2003 Guidelines in selecting your site and if not, whether you intend to use a different method to assess potential impacts to avian and other wildlife resources, and if so, what that method consists of.

### **Migratory Birds**

The MBTA prohibits the taking, killing, possession, and transportation, (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted. While the Act has no provision for allowing unintentional take, the Service realizes that some birds may be killed during wind project construction and operation even if all known reasonable and effective measures to protect birds are used. The Service's Office of Law Enforcement (OLE) carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and agencies that have taken effective steps to avoid take of migratory birds and by encouraging others to implement measures to avoid take of migratory birds. It is not possible to absolve individuals, companies, or agencies from liability even if they implement bird mortality avoidance or other similar protective measures. However, OLE focuses its resources on investigating and prosecuting individuals, companies, and agencies that take migratory birds without identifying and implementing all reasonable, prudent and effective measures to avoid that take. Companies are encouraged to work closely with Service biologists to identify available protective measures when developing project plans and/or avian protection plans, and to implement those measures prior to/during project construction and operation.

The Service has coordinated with the Avian Power Line Interaction Committee (APLIC) to develop guidelines to assist companies in formulating Avian Protection Plans (APP). The guidelines can be accessed from APLIC's website at <http://www.aplic.org/>. These plans are utility specific and designed to reduce operational risks that result from avian interactions with electric utility facilities, but we suggest they may be adapted to wind energy facilities. Wind

energy projects have the potential to negatively affect bats as well as avian species. Therefore, we encourage project developers to formulate an Avian and Bat Protection Plan (ABPP) if bats migrate through or may be present in the project area.

Some of the things that the Service looks for in an APP or ABPP are typically: a statement of company policy confirming the company's commitment to work cooperatively towards the protection of migratory birds and bats; identification of the process under which the company will obtain and comply with all necessary permits, including, but not limited to, nest relocation, temporary possession, depredation, salvage/disposal, and scientific collection; discussion of the company's plan for monitoring and reporting all incidents of avian or bat injury or mortality; a commitment to make all reasonable efforts to construct and modify infrastructure to reduce the incidence of avian and bat mortality; a mechanism to review existing practices, ensuring quality control and allowing for adaptive management; and a plan for providing adequate training for all appropriate utility personnel. An APP or ABPP reporting system is important to help the company pinpoint areas of concern by tracking both the specific locations where mortalities may be occurring, as well as the extent of such mortalities and the remedial actions taken/planned to address identified problem areas. Following the 2003 voluntary Guidelines and involving the Service prior to selecting a project site are key components to obtaining prosecutorial discretion in the event of bird injuries and mortalities due to project construction and operation.

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](http://www.eei.org).

To the extent practicable, construction should be scheduled for late summer or fall/early winter so as not to disrupt waterfowl or other wildlife during the breeding season (February 1 to July 15). 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, their eggs, or active nests, the Service recommends that the project proponent take all practicable measures to avoid and minimize take, such as maintaining adequate buffers, to protect the birds until the young have fledged. The Service further recommends that if field surveys for nesting birds are contemplated, that survey plans be shared and coordinated with this office and that if surveys are conducted with the intent of avoiding take, that any documentation of the presence of migratory birds, eggs, and active nests, along with information regarding the qualifications of the biologist(s) performing the surveys, and any avoidance measures implemented at the project site be maintained. Should surveys or other available information indicate a significant impact to migratory birds, the Service requests that this office be contacted for further consultation on the extent of the impact and the long-term implications of the intended use of the project on migratory bird populations.

## **Bald and Golden Eagles**

The BGEPA prohibits anyone without a permit issued by the Secretary of the Interior from taking bald or golden eagles, including their parts, nests, or eggs. The Act provides criminal and civil penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof. The Act defines take as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available; 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously-used nest site during a time when eagles are not present, if, upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment. A permit is required for any take of bald or golden eagles or their nests. Permits to take eagles or their nests are available only for legitimate emergencies or as part of a program to protect eagles.

## **Threatened, Endangered, and Candidate Species**

A list of federally threatened and endangered species, and candidate species that may occur within the proposed project's potential area of influence is enclosed, i.e. a list of threatened, endangered, and candidate species for Burleigh County (enclosure 2). This list fulfills requirements of the Service under the ESA.

If a Federal agency (Western) authorizes, funds, or carries out a proposed action, the responsible Federal agency, or its delegated agent, is required to evaluate whether the action "may affect" listed species or critical habitat. If the Federal agency or its designated agent determines the action "may affect, is likely to adversely affect" listed species or result in destruction or adverse modification of critical habitat, the responsible Federal agency shall request formal section 7 consultation with this office. If the evaluation shows a "no effect" determination for listed species or critical habitat, further consultation is not necessary. If a private entity receives Federal funding for a construction project, or if any Federal permit or license is required, the Federal agency may designate the fund recipient or permittee as its agent for purposes of informal section 7 consultation. The funding, permitting, or licensing Federal agency is responsible to ensure that its actions comply with the ESA, including obtaining concurrence from the Service for any action that may affect a threatened or endangered species or designated critical habitat.

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 throughout North Dakota. The proposed project site is located within the whooping crane migration corridor that includes 95% of all confirmed whooping crane sightings in North Dakota (enclosure 3). Wind energy projects in this wind resource area have the potential to affect whooping cranes during their annual spring and fall migrations. Potential effects may be direct (e.g. collision mortality) or indirect (e.g. avoidance of the site resulting in cranes seeking alternate habitat). The best available information indicates that whooping cranes generally avoid stopover habitat that is developed with wind energy appurtenances, particularly wind turbines. This avoidance may deny them the use of important habitat, and thus may result in an adverse effect in the form of harm by significant habitat modification. Whooping cranes use migration stopover habitat opportunistically and may not use the same stopovers annually. Whooping cranes often stop wherever they happen to be late in the day when they find conditions no longer suitable for migration. This tendency can make for a very unpredictable pattern of stopover use, depending on daily weather conditions. The loss of such habitat due to the presence of wind turbines is a substantial indirect impact that is anticipated to increase with the growth in wind energy development in the whooping crane migration corridor.

The interactions of whooping cranes with wind turbines and wind facilities 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. Other species of large birds such as raptors, white pelicans, and sandhill cranes have been documented colliding with wind turbine blades. Direct mortality or injury of whooping cranes may occur as they encounter turbines in bad weather or low-light conditions at the beginning or end of migration flights, or when flying between roosts and foraging areas at stopover sites. The highest known source of direct mortality to fledged whooping cranes is from striking power lines. Currently, collisions with power lines 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 no Service property interests are located in the proposed project area.

### **High-Value Habitat Avoidance**

High-value wildlife habitat types in North Dakota include native prairie, wetlands, wooded draws and riparian forests. We recommend that construction of wind towers and appurtenant facilities in these habitat types be avoided whenever possible.


Our review of NWI maps indicates that wetland areas are located within the project area. NWI data can be accessed directly by visiting their website at ([wetlands.fws.gov](http://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. The project proponent should 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 also provide recommendations on this project to the Corps.

### **Research, Monitoring, and Assessment**

We recommend project proponents, in coordination with the Service, implement pre-construction wildlife surveys to quantify bird and bat use of the project area. Up to 3 years of post-construction collision monitoring studies are recommended (based on the level of risk identified during pre-construction surveys) 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 and bat 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 23<sup>rd</sup> Street, Suite 275, Washington, D.C. 20037, or by visiting their website at ([www.nationalwind.org](http://www.nationalwind.org)).

Thank you for the opportunity to provide comments. If you have any questions, please contact Terry Ellsworth of my staff or myself at (701) 250-4481, or at the letterhead address.

Sincerely,

  
for Jeffrey K. Towner  
Field Supervisor  
North Dakota Field Office

Enclosures (3)

cc: N. Dakota Public Service Commission  
North Dakota Game and Fish Department (Attn: John Schumacher)