



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
3425 Miriam Avenue  
Bismarck, North Dakota 58501



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RECEIVED

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Mr. Clayton Derby  
Senior Manager  
WEST Inc.  
4007 State Street, Suite 109  
Bismarck, North Dakota 58503

PUBLIC SERVICE COMMISSION

Re: Potential New Frontier Wind Energy Project

Dear Mr. Derby:

This is in response to your letter dated February 28, 2011, which was a follow-up to a meeting on February 24, 2011, in our office with representatives of your firm, Element Power, and North Dakota Game and Fish Department. You stated Element Power is evaluating the feasibility of developing the New Frontier wind energy project in McHenry County, North Dakota, including all or parts of T. 15 N., R. 80 W., Sec. 7, 8, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35. The project proposal also includes a potential transmission line route to an existing substation near Voltaire. There are currently no proposed construction dates.

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.) (MBTA), Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250), the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), and the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

### 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, 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 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

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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.

You indicated your company is assisting Element Power in a Tier 2 analysis consistent with the Federal Advisory Committee recommendations. The Wind Turbine Guidelines Advisory Committee completed its work and submitted its recommendations to the Service on March 4, 2010. The Service published its Draft Land-Based Wind Energy Guidelines in the Federal Register for public comment on February 18, 2011. The Service has not yet published new guidelines; therefore, we continue to recommend use of the Service's 2003 voluntary Guidelines referenced above. 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.

In the meeting held in our office on February 24, Element Power provided the Service with copies of Final Critical Issues Analyses for both the New Frontier and Garrison Butte Wind Projects, prepared by HDR Engineering Inc., both dated June 2010. The New Frontier document states that HDR made a site visit on November 20, 2009. The Service should have been contacted and involved in survey design for any prospective project sites. In both the New Frontier and Garrison Butte Analyses, the following recommendation is made by HDR: "USFWS has been taking a very cautious approach to energy projects within the whooping crane migratory corridor and should be consulted early on in the project development process to discuss potential impacts and probable avoidance or mitigation strategies." We could not agree more, and we urge Element Power to work with the Service on potential impacts to whooping cranes and other wildlife resources before making a final site selection.

### **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 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 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 with 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 McHenry County (enclosure 3). This list fulfills requirements of the Service under the ESA.

Section 10(a)(1)(B) of the ESA allows non-Federal parties planning activities that have no Federal nexus, but which could result in the incidental taking of listed animals, to apply for an incidental take permit. (A Federal nexus exists whenever an activity is conducted, funded, or licensed or permitted by a Federal agency). The application must include a habitat conservation plan (HCP) laying out the proposed actions, determining the effects of those actions on federally-listed plant

and wildlife species and their habitats (and may include proposed or candidate species), and defining measures to minimize and mitigate adverse effects.

If a Federal agency 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. 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 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 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. The highest known source of 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.

Element Power has informed us that there is no Federal nexus to this project. Element Power is also participating in the Great Plains Wind Energy (GPWE) Programmatic HCP that includes the potential project site described. Given that project-specific HCPs are costly and time-consuming

both for the project proponent and the Service, and if Element Power believes that incidental take of any federally-listed species, including the whooping crane and the piping plover, is likely to occur, we suggest that if the New Frontier Project goes forward at the indicated site, be covered under the GPWE HCP.

### **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 property interests are located in the proposed project area (enclosure 3). The Service has an ongoing easement acquisition program and we recommend that for any plans to develop in McHenry County, you contact Mr. Kelly Hogan for more specific information relative to Service easements and up-to-date realty records at telephone (701) 768-2548 or email [kelly\\_hogan@fws.gov](mailto:kelly_hogan@fws.gov).

Wetland easements are legal agreements with private landowners that permanently protect wetland basins from being drained, burned, leveled, or filled. Grassland easements are legal agreements with landowners that permanently protect grassland vegetation, primarily native prairie, from being destroyed or developed. Grassland easements prevent these grasslands from being converted to cropland. Mowing, haying, and grass seed harvesting must be delayed on grassland easements until after July 15 each year to protect grassland nesting birds. The primary responsibility in protecting these interests is to review all proposed uses to ensure that the requests are compatible with Service easement regulations and various laws and policies. 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.

Cultural resource compliance requires coordination with the Zone Archeologist early in the NEPA process. Cultural Resource field investigations on USFWS easements and fee lands require a permit issued by the Zone Archeologist. Contact Barry G. Williams, USFWS Dakotas Zone Archeologist ([barry\\_williams@fws.gov](mailto:barry_williams@fws.gov), 701-355-8577).

### **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 the 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'

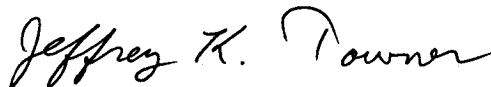
404 permit may be required if fill material will be placed in aquatic sites, including wetlands. The project proponent should contact Mr. Dan Cimarosti, Regulatory Office, Corps of Engineers, 1513 South 12th Street, Bismarck, North Dakota 58504 (701-255-0015), to determine their permit requirements. 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 conduct a minimum of 2 years of pre-construction wildlife surveys to quantify bird and bat use of the project area. Collision monitoring studies are recommended for a minimum of 3 years post-construction 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)).

If you have any questions, please contact Kevin Shelley of my staff or myself at (701) 250-4481, or at the letterhead address.

Sincerely,



Jeffrey K. Towner  
Field Supervisor  
North Dakota Field Office

Enclosures (3)

cc: N. Dakota Public Service Commission  
J. Clark Salyer Wetland Management District  
(Attn: Kelly Hogan)  
North Dakota Game and Fish Department  
(Attn: John Schumacher)