



B0401.BL

**Department of Energy**  
Western Area Power Administration  
Upper Great Plains Region  
P.O. Box 35800  
Billings, MT 59107-5800

**OCT 20 2006**

**RECEIVED**  
**OCT 23 2006**  
**SOUTH DAKOTA PUBLIC**  
**UTILITIES COMMISSION**

Dear Interested Party:

The Upper Great Plains Regional Office of the Western Area Power Administration (Western) received a request for interconnection from Northern States Power Company d.b.a. Xcel Energy (Xcel). The enclosed Finding of No Significant Impact (FONSI) includes a summary of the project, alternatives, associated impacts as described in the environmental assessment (EA), and findings.

As part of the proposed interconnection, Western would make improvements to Western's White Substation in Brookings County, South Dakota, and enter into an interconnection agreement with Xcel. Xcel's Buffalo Ridge-White Transmission Project includes the following components:

- improvements to Xcel's Buffalo Ridge Substation near Lake Benton, Minnesota;
- new Yankee Substation in Lincoln County, Minnesota;
- reroute of a 1.4-mile segment of the existing Lake Yankton-Pipestone 115-kV Transmission Line;
- new Brookings County Substation in Brookings County, South Dakota;
- new 28-mile, 115-kV transmission line between the Buffalo Ridge and the Brookings County substations; and
- two new 0.4-mile, 345-kV transmission lines between the White and Brookings County substations.

The EA and mitigation action plan are available upon request. To request an electronic (e-mail or cd) or hard copy, please contact Catherine Cunningham, NEPA Document Manager, at the following address:

Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228-8213  
(720) 962-7260  
Fax: (720) 962-7263  
Email: [cunningh@wapa.gov](mailto:cunningh@wapa.gov).

If you have any questions, please telephone Ms. Cunningham at (720) 962-7260 or Dirk Shulund at (406) 247-7402.

Sincerely,

*Nicholas J. Stas*  
Nicholas J. Stas  
Environmental Manager

Enclosure

RECEIVED

OCT 23 2006

September 2006  
DOE/EA-1559

SOUTH DAKOTA PUBLIC  
UTILITIES COMMISSION

**Department of Energy, Western Area Power Administration  
Finding of No Significant Impact  
and Floodplain Statement of Findings  
Xcel Energy's Buffalo Ridge to White Transmission Project**

**Summary** – The Upper Great Plains Regional Office of the Western Area Power Administration (Western) has received a request for interconnection from Northern States Power Company d/b/a Xcel Energy (Xcel). As part of the proposed interconnection, Western would make improvements to Western's White Substation, in Brookings County, South Dakota, and enter into an interconnection agreement with Xcel. Xcel's Buffalo Ridge-White Transmission Project includes the following components:

- improvements to Xcel's Buffalo Ridge Substation near Lake Benton, Minnesota;
- new Yankee Substation in Lincoln County, Minnesota;
- reroute of a 1.4-mile segment of the existing Lake Yankton-Pipestone 115-kV transmission line;
- new Brookings County Substation in Brookings County, South Dakota;
- new 28-mile, 115-kV transmission line between the Buffalo Ridge and the Brookings County substations; and
- two new 0.4-mile, 345-kV transmission lines between the White and Brookings County substations.

The environmental assessment (EA) entitled "Buffalo Ridge to White Transmission Project," (DOE/EA-1559) was distributed for pre-approval review to agencies, Tribes, and interested parties on May 22, 2006. In response to comments received, an erratum was prepared to clarify and correct information in the EA. This erratum finalizes the EA, and is approved concurrently with this finding of no significant impact (FONSI).

Western concluded that some additional environmental protection and mitigation measures are needed to render impacts insignificant. These measures will be implemented through a mitigation action plan (MAP), which Western has issued concurrently with this FONSI. The basis for Western's conclusions is summarized below.

Additional information and copies of the EA, including the erratum, and FONSI are available to all interested persons and the public through the following contact:

Catherine Cunningham  
Corporate Services Office  
Western Area Power Administration  
P.O. Box 281213

Lakewood, CO 80228  
Phone: (800) 336-7288  
Fax: (720) 962-7263  
E-mail: [cunningh@wapa.gov](mailto:cunningh@wapa.gov)

Additional general information on DOE National Environmental Policy Act (NEPA) activities is available through the following contact:

Carol M. Borgstrom  
Director, Office of NEPA Policy and Compliance, EH-42  
U.S. Department of Energy  
1000 Independence Avenue, SW.  
Washington, DC 20585  
Phone: (202) 586-4600 or (800) 472-2756

**Purpose and Need** – Xcel has applied to interconnect with Western's transmission system at Western's White Substation. Western would meet its purpose and need to provide transmission services under its open access transmission service tariff, respond to the applicant's interconnection request, protect transmission system reliability and service to existing customers and consider the applicant's objectives in the request. Western's action is to decide whether to grant Xcel interconnection with Western's transmission system.

**Project Description** – Xcel proposes to construct new 115- and 345-kV transmission lines between its existing Buffalo Ridge Substation near Lake Benton, Minnesota, and Western's existing White Substation near White, South Dakota (Proposed Action). In addition, Xcel proposes to build and expand ancillary facilities, as noted above, to support the maintenance and operation of the proposed transmission lines. Western would make improvements to White Substation to accommodate the Proposed Action. Approximately two-thirds of the Proposed Action is located in Lincoln County, Minnesota, with one-third in Brookings County, South Dakota. One section of the proposed transmission line, near Lake Benton, Minnesota, would be built to double-circuit specifications, to accommodate the Buffalo Ridge-White Transmission Line as well as a portion of Xcel's existing Lake Yankton-to-Pipestone 115-kV Transmission Line. The portion removed and replaced by this section is currently located in a sensitive area known as the Hole-in-The-Mountain Wildlife Management Area (WMA). The Proposed Action crosses mostly private lands, except for the Hole in the Mountain WMA, which is managed by the Minnesota Department of Natural Resources (DNR). Once the proposed project is complete, ownership of the abandoned right-of-way would revert to the Minnesota DNR.

**Agency Consultation and Public Participation Process** – In February 2005 Xcel distributed an invitation to agencies, Tribes, landowners, and interested parties to attend an open house informational and public scoping meeting. The meeting was held on February 23, 2005. Meeting information included a Notice of Floodplain Involvement to comply with DOE's requirements under 10 CFR part 1022. On October 3, 2005,

Western sent a letter of invitation to Federal and state agencies to be cooperating agencies for the EA. On May 22, 2006, Western distributed a draft EA to agencies, Tribes, affected landowners, and other interested parties for pre-approval review. The comments received were the basis for preparing an erratum to the EA, which amends and clarifies the EA. The erratum is approved concurrently with this FONSI.

Western sent a letter to the U.S. Fish and Wildlife Service (USFWS) on October 3, 2005, to request species lists and to initiate informal consultation. Western prepared a biological assessment and sent it with a letter initiating formal consultation on May 18, 2006. Western provided additional information on June 29, 2006. The USFWS concurred with Western's determination "may affect, not likely to adversely affect" on July 25, 2006. With the USFWS concurrence, Western has met its obligations under the Endangered Species Act (7 U.S.C. 460 et seq.).

Western consulted with the Minnesota and South Dakota State Historic Preservation Offices (SHPO) to meet its obligation under the National Historic Preservation Act (NHPA, 16.U.S.C. 470 et seq.). Western sent letters to each SHPO on July 12, 2006. The South Dakota SHPO sent a reply, dated September 13, 2006. Their letter concurred with Western's determination of no adverse effect and included stipulations referenced in the MAP. The Minnesota SHPO sent a letter dated September 26, 2006 concluding that no historic properties would be affected by the Proposed Action.

Consultations with Tribes have been ongoing during the EA preparation process. Western sent letters to consult with all known, potentially interested Tribes on February 11, and October 21, 2005, to provide information on the project, request feedback, and offer involvement. The EA was distributed to all potentially interested Tribes for review and comment on May 22, 2006. On July 12, 2006, Western sent a letter transmitting the results, recommendations, and Western's determination of no effect, based on results of the archaeological and architectural surveys for the Proposed Action. Western has received no indication from Tribes of traditional or ceremonial significance to the area.

**Alternatives** – DOE's NEPA regulations require that an EA include a discussion of the No Action alternative (10 CFR 1021.362 (c)). Under the No Action alternative, there are two sub-alternatives, including "partial build" and "no build." Under the partial-build alternative, Xcel would build a new Yankee Substation and build a new transmission line and associated facilities and upgrades between the Yankee and Buffalo Ridge substations. Under the no-build alternative, the project would not be built and no interconnection or facilities would result.

**Environmental Impacts** – Findings on the impacts and their significance resulting from the Proposed Action are based on information contained in the EA and erratum. The EA, including the erratum, is available upon request. In reaching conclusions about the proposed project's environmental impacts, Western considered resource protection measures required of Xcel, as defined in the EA and erratum.

The existing environmental and potential environmental impacts were identified and evaluated: Soils, air, water (including floodplains, surface water, and wetlands), biological resources (including vegetation, wildlife, and special status species), social resources, environmental justice, land use (including prime farmland), visual resources, noise, health and safety, and cultural resources.

Western concluded that the Proposed Action would not result in any significant impacts, as long as measures required of Xcel in the EA, including commitments to implement Best Management Practices (BMP), and measures defined in the MAP are incorporated. The basis for Western's conclusions is summarized below.

Soils. Potential adverse impacts to soils include increased soil disturbance and erosion from runoff and wind. The Proposed Action includes erosion control measures that would be implemented to minimize erosion and topsoil loss. Thus, air or water quality degradation or decline in agricultural or habitat productivity would not occur and the Proposed Action would have no significant direct, indirect, or cumulative impacts to soils.

Air Resources. The activities of the Proposed Action have the potential to temporarily adversely affect air resources due to fugitive dust generation and the operation of machinery and equipment. The limited duration of construction, along with implementing BMPs are expected to result in compliance with Federal and state standards. As a result, no significant direct, indirect, or cumulative impacts to air resources would result from the Proposed Action.

Water Resources. Maintenance and operation activities for substation and transmission line facilities are not expected to have an adverse impact on water or wetland quality. The small increase in impermeable surface area resulting from construction activities could increase sediment in runoff reaching surface water features. However, erosion potential is not expected to be noticeably higher than under the existing land use.

There is the possibility with any construction activity of spilling fuel, hydraulic fluid, or other regulated materials that could reach surface water resources. Xcel would minimize the likelihood of such an event by requiring refueling and equipment maintenance take place at secure areas away from drainages.

The Proposed Action would be designed and implemented to avoid water resources, including wetlands. The proposed Project does not require U.S. Army Corps of Engineers Clean Water Act Section 404 permitting or Section 401 water quality certification from EPA or state agencies.

Information for the February 23, 2005, public scoping meeting included a Notice of Floodplain Involvement to comply with DOE's requirements under 10 CFR part 1022. The EA includes a floodplain and wetland assessment. This assessment is included under the *Water Resources and Water Quality* section of the EA.

- **Floodplain Statement of Findings.** The Proposed Action crosses five, FEMA-mapped, 100-year floodplains. The transmission lines would be designed to span and/or avoid surface water features. Construction of the transmission lines is not expected to alter existing water drainage patterns or floodplains due to the small cross section per structure and their relatively wide spacing. There is, however, one floodplain associated with Deer Creek, which is wider than the maximum span length. It is probable that one structure would be placed in this floodplain. The small cross section of the single structure is not expected to alter flood patterns.

Although construction of the proposed substations would involve a small increase in impermeable surfaces (from the control houses and structure footings), the change to local surface drainage patterns, due to this and any necessary grading, is expected to be negligible. The small area of impermeable surfaces created by the footings and substation outbuildings would not cause an increase in susceptibility of flooding in the region.

Construction of the transmission lines and substations is not expected to alter existing water drainage patterns. Xcel would implement BMPs to minimize potential harm to or within the floodplain. Western has determined that the Proposed Action conforms to applicable floodplain protection standards.

Impacts to water resources from the Proposed Action are expected to be minimal. Temporary disturbances would be restored to original contours. No changes would occur to the drainage patterns. No modifications to floodplains or flow patterns would result. Surface water and groundwater quality would not be adversely affected. In addition, the project would comply with other BMPs, including proper fuel handling and storage, and appropriate spill contingencies. Therefore, Western determined that no direct, indirect, or cumulative significant impacts to water resources would result from the Proposed Action.

### Biological Resources

Vegetation. Construction, operation, and maintenance of project facilities and access roads for the Proposed Action would cause temporary disturbance. This disturbance would not eliminate any species or damage ecological processes so sustainability or biodiversity is impaired. Approximately 25 acres of vegetation would be permanently disturbed for the proposed project. Any loss of vegetation or introduction of noxious weeds would be minimized through implementing BMPs.

Wildlife. During construction, it is likely that wildlife would be temporarily impacted by habitat alteration and temporary displacement. Nesting bird species may be affected by the transport and operation of vehicles, equipment, and personnel associated with constructing the Proposed Action. These bird species and their young would be expected to occur in pasture, grassland, and prairie areas. Nesting season is

approximately May 1 to July 15. Construction activities would be limited to occur outside this season, when feasible. If any construction or maintenance activities occur during the season, the Applicant would be required to conduct surveys immediately prior to work to identify and avoid nest locations and surveys immediately after work to determine if any birds, eggs, or nests were taken or destroyed. Additional measures may be defined through memoranda of understanding with appropriate agencies. Construction-related impacts would be further minimized by employing BMPs and additional measures proposed by Xcel to minimize avian issues. Western has concluded that the Proposed Action would not result in loss of habitat or individuals resulting in the listing of any species.

Special Status Species. The USFWS identified two federally-listed threatened species that could occur in the study area: the bald eagle (*Haliaeetus leucocephalus*) and the Western prairie fringed orchid (*Plantanthera praeclara*); and one federally-listed endangered species: the Topeka shiner (*Notropis topeka*). In addition, a candidate species, the Dakota skipper (*Hesperia dakotae*), has been documented in the Hole-in-the-Mountain WMA and was discovered during project surveys in July 2006, near the proposed Brookings County Substation. The Proposed Action would involve 11 crossings of critical habitat stream segments for the Topeka shiner. Avoidance and mitigation measures required of Xcel in the EA would minimize effects to these species and their critical habitat. Western determined that the Proposed Action may affect but is not likely to adversely affect the listed species based on measures included with Xcel's Proposed Action to minimize adverse effects to listed species. The Dakota skipper depends on native prairie habitat. The Proposed Action would be designed to span native prairie, thereby avoiding direct disturbance. Construction activities would be conducted during winter months in areas where the species is found.

Based on the above findings, Western determined that the Proposed Action would not cause a significant direct, indirect, or cumulative impact to biological resources.

Social Resources. Considering the short duration and intermittent construction cycle for the Proposed Action, it would not result in the degradation or over-commitment of existing goods and services to an extent that would limit the sustainability of existing communities, induce growth, cause reductions in employment or income, displace existing housing, disrupt or divide the physical arrangement of communities, or cause a decrease in local or regional employment. Western determined that the Proposed Action would not result in direct, indirect or cumulative significant impacts to socioeconomic resources.

Environmental Justice. The nearest Indian reservation is approximately 20 miles south of the project. There is also a relatively high rate of poverty in Richland Township, Brookings County, South Dakota, likely due to a Hutterite Colony located there. The transmission line design would avoid placement within 300 feet of any occupied residence. No potential impacts to human health or the environment have been identified that would constitute discrimination of or disproportionate impacts to low income, minority, and subsistence populations as a result of the Proposed Action.

Western determined that the Proposed Action would not result in direct, indirect or cumulative significant impacts on Environmental Justice.

Land Use. Land uses could be affected primarily by causing interferences to agricultural uses from the proposed transmission line and related facilities. Xcel would fairly compensate landowners for land acquisition and for crop damages and soil compaction that may result from the Proposed Action. Impacts to land uses and agricultural practices would be reduced by siting structures in previously-disturbed areas or in areas where agricultural practices are already limited (e.g., along existing roads, etc.) to the extent feasible. Farming and grazing could continue around most facilities. Foreclosure of future land uses would not occur. Thus, Western concluded that the Proposed Action would not cause a direct, indirect, or cumulative significant impact to land use.

Visual Resources. The area contains no unique or scenic viewsheds and already contains multiple transmission and distribution lines and wind turbines. For the Hole-in-The-Mountain WMA, the visual landscape would improve with removal of the existing transmission line. Given the presence of transmission lines and wind turbines and the rolling topography of the region, the Proposed Action would not dominate any unique or scenic viewshed. Proposed wind generation projects, in combination with the Proposed Action would result in changes to the visual setting, though the change is not considered adverse, based on the desirability of wind power generation to local landowners and the general public. Therefore, the Proposed Action would not cause a direct, indirect, or cumulative significant impact to visual resources.

Noise. The Proposed Action is located in a rural area. Initial construction activities and periodic maintenance would result in temporary increases in noise because of the presence of crews, equipment, and machinery. Noise from the Proposed Action would not exceed noise level standards and is anticipated to be masked by winds in the area. For all components of the Proposed Action, noise levels for receptors would be comparable to existing noise levels and below the most stringent noise limits defined for the project area. Western concluded that no direct, indirect, or cumulative noise impacts would occur as a result of the Proposed Action.

Health and Safety. Construction work plans and specifications for the Proposed Action would be prepared to address both public and worker safety during construction. The preparation of these documents would include appropriate performance provisions for worker protection as is required under the Occupational Safety and Health Act. Compliance with these work plans and specifications would result in workers and the public being optimally protected from injury.

Long-term, magnetic exposure would be minimal for the proposed transmission line, given the distances of residences from the proposed transmission line. Exposure to magnetic fields of short duration and current design standards are not known to pose a health hazard to humans or animals. Nuisance shocks would be minimized through grounding and other measures, consistent with common industry practices. The use of



low-corona line design and appropriate corona-minimizing construction practices would minimize the potential for corona noise and its related interference with radio-frequency communication. Therefore, Western concluded that no direct, indirect, or cumulative health and safety impacts would occur as a result of the Proposed Action.

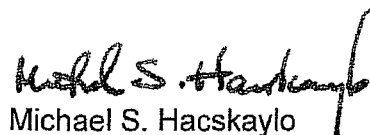
Cultural Resources. A Class III pedestrian archaeological survey and architectural history survey were completed to identify archaeological and historic sites within the project area. Findings from the 2005/2006 surveys include 9 archaeological sites and 36 standing structures of approximately 50 years of age or more. Four of the archaeological sites are considered potentially significant, all of which would be avoided by the Proposed Action.

In addition, the issue of the Buffalo Ridge land form, as a historic property, was raised during background work and consultation. The land form itself is a glacial moraine, which stretches for more than 200 miles across three states. The historic property, as defined in the Minnesota State Historic Register, is a high point located in Murray County, Minnesota, that contains stone effigies. Based on research done for the Proposed Action, Buffalo Ridge is most accurately identified as the location in Murray County, rather than the entire geologic formation. Western has received no indication from Tribes of traditional or ceremonial significance to the area.

Western has determined the Proposed Action would have no adverse effect on historic properties. The South Dakota SHPO concurred, as stipulated, with Western's determination of no adverse effect on September 13, 2006. The Minnesota SHPO concluded, in a letter dated September 26, 2006 that the Proposed Action would have no effect on historic properties. Therefore, Western determined that no significant direct, indirect or cumulative impacts to cultural resources would occur as a result of the Proposed Action.

**Determination** – The analysis contained in the EA indicates that the Proposed Action, implemented as directed under the MAP, is not a major Federal action significantly affecting the quality of the human environment. Based on, and subject to, Xcel's commitment to implement the project as proposed in the EA and MAP, Western determined that preparation of an EIS is not required.

Issued: SEP 26 2006

  
Michael S. HacsKaylo  
Administrator