U.S. DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION
UPPER GREAT PLAINS CUSTOMER SERVICE REGION

FINDING OF NO SIGNIFICANT IMPACT

Williston to Tioga Transmission Line Project
Williams and Mountrail Counties, North Dakota
DOE/EA-1635

AGENCY: U.S. Department of Energy, Western Area Power Administration

ACTION: Finding of No Significant Impact

SUMMARY: Basin Electric Power Cooperative (Basin Electric) has requested to interconnect their proposed new Williston to Tioga 230-kilovolt (kV) transmission line (Proposed Project) to the Western Area Power Administration's (Western) transmission system at Western's existing Williston Substation. Under its Open Access Transmission Service Tariff (Tariff), Western is required to respond to Basin Electric's interconnection requests. Western's Tariff conforms to section 211 of the Federal Power Act and Federal Energy Regulatory Commission's (FERC) Final Orders addressing non-discriminatory transmission system access. Western's Tariff provides for new interconnections to Western's transmission system by all eligible entities, consistent with Western requirements and subject to environmental review under the National Environmental Policy Act (NEPA) and other environmental regulations.

In accordance with applicable regulations, Western prepared an EA entitled *Williston to Tioga Transmission Line Project* (DOE/EA-1635). Western's Federal action is limited to making a determination to approve or deny Basin Electric's interconnection request and to make any necessary system modifications to accommodate the interconnection of Basin Electric's Proposed Project. Western has determined that, if the interconnection request is granted, Western would need to make modifications within its existing Williston Substation. The environmental impacts of the substation modification were analyzed in Western's environmental assessment (EA) *Wolf Point, MT - Williston, ND Transmission Line Rebuild* (DOE/EA-1401), prepared in August 2003, and are considered part of Western's Federal action for this Proposed Project.

Western's Federal action does not include Basin Electric's Williston to Tioga Transmission Line Project, which would be constructed, owned, operated, and maintained by Basin Electric. However, Western's EA analyzes and discloses the potential environmental impacts of Basin Electric's Proposed Project. In addition to addressing Western's action, the EA evaluates and compares the environmental impacts of a No Action Alternative and three transmission line route options for Basin Electric's Proposed Project. Mitigation measures to minimize any environmental impacts were incorporated directly into the Proposed Project options. The EA identified no potentially significant impacts to environmental resources resulting from either Western's Federal action or Basin Electric's Proposed Project.

The EA was distributed to interested agencies, tribes, groups, and individuals on March 12, 2010. The public comment period ended on April 12, 2010; no comments were received during the comment period.

Based on the information contained in the EA, Western has determined that approval of the interconnection request and Basin Electric's Proposed Project does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA. Preparation of an environmental impact statement is not required, and Western is issuing this finding of no significant impact (FONSI).

FOR FURTHER INFORMATION, CONTACT: Additional information and copies of the EA and this FONSI are available to all interested parties and the public from the following contact:

Mr. Nicolas Stas, Environmental Manager
Western Area Power Administration
Upper Great Plains Regional Office
P.O. Box 35800
Billings, MT
59107-7408
Phone: (406) 247-7399
Fax: (406) 247-7408
Email: stas@wapa.gov

For further information on the DOE NEPA process, contact:

Ms. Carol M. Borgstrom
Director, Office of NEPA Policy and Compliance, GC-20
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
Phone: (202) 586-4600 or (800) 472-2756

SUPPLEMENTARY INFORMATION: This FONSI was prepared in accordance with Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR 1508.13, and the DOE NEPA Implementing Procedures, 10 CFR 1021.322.

The FONSI briefly presents the reasons why Western's proposal to approve an interconnection agreement for the Williston to Tioga Transmission Line Project, including the described impact mitigation measures outlined in the EA, will not have a significant impact on the human environment. Approval of the interconnection agreement would allow Basin Electric to interconnect their proposed new Williston to Tioga 230- kV transmission line to Western's transmission system at its existing Williston Substation. In accordance with the regulations cited

above, Western prepared an EA entitled *Williston to Tioga Transmission Line Project* (DOE/EA-1635), on Western's Federal action and on Basin Electric's Proposed Project. The EA identifies and evaluates the potential environmental impacts associated with Western's decision on the interconnection agreement and of Basin Electric's Proposed Project. The EA is incorporated in whole by reference into this FONSI in accordance with 40 CFR 1508.13, which allows a summary discussion in this document.

Prior to making a decision to approve the interconnection of the Williston to Tioga Project, Western is required to prepare an EA to address NEPA and related environmental requirements. The EA examines the potential environmental effects of approving the application for interconnection as well as the No Action Alternative. Under the No Action Alternative, Western would not approve the interconnection request. For purposes of providing a no-project environmental baseline, the No Action Alternative also assumes that the Proposed Project would not be constructed. The EA also analyzes the potential environmental impacts of constructing, operating, and maintaining the Williston to Tioga transmission line. North Dakota Public Service Commission (NDPSC) has siting and regulatory authority for utility projects in the State; their permitting requirements for the transmission line were integrated into the EA process, which resulted in the selection of a preferred routing option. Basin Electric is, concurrently with the NEPA process, independently completing the NDPSC permitting process. The EA evaluates and compares the three potential transmission line route options and the single Action Alternative, as well as the No Action Alternative.

WESTERN'S FEDERAL ACTION: Western must decide whether to approve or disapprove Basin Electric's interconnection request at Williston Substation. Under its Tariff, Western must offer access to capacity on its transmission system when capacity is available, and on a non-discriminatory basis. Western also needs to ensure that by offering such capacity, existing transmission system reliability and service is not degraded by new interconnections. Transmission system studies were conducted to determine the effects on power flows in the event the interconnection request was to be approved. These studies indicate that interconnection of Basin Electric's Proposed Project would not adversely affect transmission system operation or reliability, or impact power deliveries to existing customers.

The applicant's objectives are also considered in Western's decision process. The FERC Orders direct that interconnection requests be approved unless the transmission system would be adversely affected by the interconnection.

PROPOSED PROJECT DESCRIPTION: Basin Electric proposes to construct, own, operate, and maintain a new single-circuit 230-kV Williston to Tioga transmission line to meet existing and future electric power requirements in northwestern North Dakota. The transmission line would be approximately 61 miles long and would be located in Williams and Mountrail counties in northwestern North Dakota. The new transmission line would interconnect with Western's transmission system at its Williston Substation, located in Williams County, near the City of Williston, and with the Montana-Dakota Utilities Tioga Substation, near the City of Tioga, in

Mountrail County. The transmission line would cross privately-owned cultivated and grazing land in northwestern North Dakota and would occupy a 125-foot-wide right-of-way (ROW).

The proposed transmission system improvements would support Basin Electric's obligation to respond to load growth and provide reliable power to end users. Electrical loads have been increasing in the region and are largely tied to development of oil and natural gas fields in western North Dakota. As a regulated utility, Basin Electric has load growth responsibility to its consumers and must provide additional resources to meet the increased demand and retain the reliability and integrity of its power system. A full and complete project description is included in the EA, which is incorporated into this FONSI by reference.

PUBLIC INVOLVEMENT: The EA contains specific information on notifications to tribes, local, State and Federal agencies, landowners, and the public. Public scoping meetings were held to discuss the Proposed Project, determine important issues, obtain local information relevant to the Proposed Project, and in general the scope and shape of the EA analyses. The pre-decisional EA was distributed to interested agencies, tribes, groups, and individuals on March 12, 2010. All correspondence is available at Western's Upper Great Plains Customer Service Regional Office.

COMMENTS RECEIVED ON THE PREDECISIONAL EA: No comments were received as a result of the public review of the pre-decisional EA.

ALTERNATIVES: DOE's NEPA regulations require that an EA include, at a minimum, the proposed action and the No Action Alternative (10 CFR 1022.321(c)). Western's action is to respond to Basin Electric's interconnection request. If approved, Western would execute an interconnection agreement with Basin Electric and would make the modifications inside Williston Substation necessary for the physical connection of Basin Electric's Williston to Tioga transmission line. Under the No Action Alternative, Western would not execute an interconnection agreement with Basin Electric, and the new transmission line would not be interconnected. The No Action Alternative provides a baseline against which the environmental impact of the Action Alternative is compared. For Western's action, the difference is the modifications at the Williston Substation necessary for the interconnection.

In order to identify and analyze the potential environmental impacts of Basin Electric's Proposed Project and compare them to no action, it was assumed that the Proposed Project would not be constructed if the interconnection request was not approved. Since Basin Electric has mandated load growth responsibility, it cannot ignore load growth and must take action to meet it. However, it is conjectural whether this action would be the same project interconnected elsewhere, a similar project, or an entirely different project. The Proposed Project as defined above is the only project that Western was requested to consider for interconnection.

The EA documents several optional routes and alignments that were considered before the preferred route alignment was selected. The NDPSC requires a process that identifies corridors and routes within corridors as part of their transmission line permitting process. The NDPSC has identified exclusion areas and avoidance areas and has established selection and policy criteria.

Since Basin Electric has to secure a permit from the NDPSC for their Proposed Project, this process was documented in the EA in Appendix A, *Corridor Level Assessment.* Project-specific routing criteria are presented in Appendix C, *Detailed Routing,* which provides detailed information on the selection of the final alignment.

The EA incorporates these NDPSC information requirements as they present very detailed information on Basin Electric's Proposed Project and allow public disclosure of the route options identified and the process followed to determine the proposed alignment. The NDPSC also conducted their own public process on the Proposed Project, including public hearings.

ENVIRONMENTAL IMPACTS OF WESTERN'S ACTION: Western's decision to approve the interconnection would result in minor modifications within Western's Williston Substation. The existing substation area has been previously graded and covered with gravel aggregate and is surrounded by a security fence to prevent unauthorized entry and injury. Vegetation is controlled for operational and safety reasons. Modifications to accommodate the proposed interconnection will have no impacts to environmental resources.

ENVIRONMENTAL IMPACTS OF BASIN ELECTRIC'S PROPOSED PROJECT: The EA evaluated the potential for Basin Electric's Proposed Project to impact environmental resources found in the Proposed Project area. Basin Electric incorporated mitigation measures and best management practices into the description of its Proposed Project. The analysis of environmental impacts identified no potential impacts that would be considered significant and no mitigation measures that should be implemented additional to those already embedded within the Proposed Project description. The principal reasons for the lack of significant environmental impact was the avoidance of sensitive resources during siting of the transmission line, the ability of transmission lines to span sensitive resources, the minor amount of disturbance at structure locations, and Basin Electric's efforts to work cooperatively with affected landowners. Each landowner had different priorities and concerns. Basin Electric worked very successfully with the landowners to determine how alignments and structure locations could be adjusted to meet their individual needs and preferences to minimize impacts.

Jurisdictions, Land Use, and Agricultural Practices: Basin Electric located the proposed transmission line route on pasture and rangeland to the extent practicable to minimize impacts to cultivated land. Section, half-section, and quarter-section lines were used when crossing cultivated areas; angled crossings were avoided. Single-pole structures were selected instead of H-frame designs to reduce their obstruction to farming practices and to minimize the area susceptible to invasive weed infestations. Permanent loss of land for the transmission line was less than 0.2 acre. While the ROW would have temporary impacts during construction, landowners would continue to have access to and the use of the land. Environmental impacts were determined to be temporary and not significant.

The transmission line would unavoidably cross some Prime and Unique Farmland and Farmlands of Statewide Importance. Temporary disturbance of Prime and Unique Farmland is estimated to be less than 4 acres, and temporary disturbance to Farmlands of Statewide Importance is estimated to be about 127 acres. These temporary impacts would be for one season, and landowners would

be reimbursed for any crop losses. Permanent impacts, or land removed from production, would be less than 0.2 acre for the entire line. These losses are not significant considering the amount of cropland in the region. The small area of borings for structure foundations would not constitute a significant impact to soils.

Physiology, Geology, and Minerals: Minerals in the Proposed Project area include lignite coal, oil, natural gas, scoria, sand, and gravel. Existing and planned mining operations were avoided during the transmission line routing process. If mining operations were ever initiated in the area, the ability to relocate a section of line would limit any impact by the transmission line. Scattered oil and gas wells are found in the vicinity of the transmission line route, but none are located nearby. Future oil development would not be affected by the line.

Hydrology and Drainage: Drainages and flood-prone areas were avoided to the extent practicable during routing. No structures would be placed in floodplains, and drainages and wetlands would be spanned by the transmission line. These areas would also be avoided by construction vehicles during construction. Structures are typically located on higher areas, as shorter structures can be used while still achieving necessary ground clearance. Because of avoidance and erosion control measures on upland construction areas, hydrology and drainage would not be adversely affected.

Vegetation and Wetland Resources: The transmission line would cross predominantly grassland and cropland. Grassland would recover quickly from the temporary disturbance caused by construction activities. Best management practices would limit the extent and level of disturbance, and would include tilling compacted soils and reseeding where needed. Impacts to cropland would be temporary and would be restored with the planting of new crops. Trees and shrubs removed during construction would be replaced on a two-for-one basis in cooperation with landowners.

While the calculations show that 3.5 acres of riparian areas and wetlands would be crossed, these areas would be spanned by the transmission line and avoided by construction vehicles. Swales that are cultivated could be crossed by construction vehicles during dry periods. Noxious weeds exist in the Proposed Project area. Equipment would be washed before entering the Proposed Project area, certified weed-free straw and re-seeding mixtures would be used, and disturbed areas would be monitored following construction for weed infestations. Control of any infestations would be coordinated with appropriate Federal, State, and local agencies and landowners. Significant impacts would not occur to vegetation or wetland resources.

Wildlife and Fisheries: The majority of wildlife species in the Proposed Project area would temporarily relocate during construction activities and return after construction is complete. Some individuals of ground-dwelling and/or less mobile species could be lost to construction activities, but the losses would be biologically insignificant. The amount of available forage and cover would be temporarily reduced, but would recover quickly naturally, or as a result of mitigation measures outlined in the previous section. Impacts to nesting migratory birds would be mitigated through pre-construction nesting surveys and the establishment of buffers around active nests as necessary.

No impacts to fisheries or aquatic species are anticipated. Aquatic habitat was either avoided or spanned. The installation of line marking devices along the entire length of line would reduce the overall avian collision risk of the transmission line.

Special Status Species: Federally-listed species in the Proposed Project area include the gray wolf, piping plover, and whooping crane. The gray wolf (if present) is highly mobile and would avoid human construction activity. The North Dakota Game and Fish Department (NDGFD) considers the gray wolf to be extirpated in the State. The whooping crane and piping plover are the only federally listed species that could be impacted by the Proposed Project.

The Proposed Project site is located within the whooping crane migration flyway; however, available habitat that would support the species in the Project area is considered marginal. Basin Electric will comply with recommended mitigation measures described in the biological assessment to minimize risk to the whooping crane. This includes marking the static wire for the entire 61-mile length of the line with line marking devices. The Proposed Project crosses a small amount of marginally suitable foraging habitat for the piping plover. Nesting habitat is not available in proximity to the proposed route. There is no designated critical habitat in the Proposed Project area.

The NDGFD identified 63 animal and 3 plant Species of Conservation Priority that occur in Williams and Mountrail counties. Many of these species are found in specialized habitats that were recognized and avoided during routing. Seventeen of the animal species would not be affected or would have little chance of being affected by the Proposed Project. While the remaining species could be present, and could be affected by construction, most impacts would be temporary, and no long-term or significant impacts were identified. Assessments for each individual species are provided in section 4.6 of the EA.

Archaeological and Historic Resources: A Class I file search was completed for all three route options. For the proposed route, 25 sites were located within 500 feet of the centerline, and 9 of the 25 were within 75 feet of the centerline. The previously identified sites are either unevaluated or recommended as not eligible for the National Register. Class III pedestrian surveys were completed along the proposed transmission line route. The surveys identified 70 sites and 9 isolated finds along the preferred route and all are either unevaluated or deemed not eligible. All sites would be marked and avoided during construction; those sites extending into the Proposed Project ROW would be spanned by the transmission line. No sites eligible for the National Register would be adversely affected by the Proposed Project. The South Dakota State Historic Preservation Officer concurred with this finding by letter dated September 22, 2009.

Native American Setting: No Traditional Cultural Use Areas, sacred sites, or other potentially sensitive areas were identified by Native American tribes with past or present affiliation to the Proposed Project area. No impacts to areas considered important by the tribes are anticipated.

Paleontological Resources: Given the limited impact of the Proposed Project on bedrock or rocky substrate, it is unlikely that construction of the Proposed Project would affect paleontological resources of State-wide importance. While damage to fossils is a possibility, construction projects

are often the cause of significant fossil discoveries. These paleontological resources would otherwise remain undiscovered and unavailable to the scientific community. No significant impacts to paleontological resources are expected.

Transportation: Regional transportation facilities would be used to transport materials and workers to the Proposed Project site. The transmission line would cross roads, highways, and a rail line. The line would not interfere with airports in the vicinity. Local traffic would increase during the 6- to 8-month construction period, but specific locations would shift as work progressed along the approximately 61-mile long line route. About 70 construction workers would be expected at the peak, and they would be scattered among several work areas. Flat-bed trucks would haul structure sections and other material to staging areas and to structure sites. The increase in traffic would be locally noticeable, but traffic volumes and population densities are low in the area. There could be a negligible increased risk of traffic accidents or temporary inconveniences to area residents due to the presence of large trucks and construction equipment on the county roads in the region.

Socioeconomics: The impact of the Proposed Project on socioeconomics would be mixed and can best be characterized as temporarily beneficial. Construction crews would bring outside dollars into the local economy for goods and services such as fuel, meals, lodging, concrete, seed, aggregate, and machinery repair. Since the EA analysis was completed, an influx of oil field workers to the Williston area has occurred. Housing vacancies are nearly non-existent, rental rates have increased, and hotels and motels are fully booked. Basin Electric has contracted with a local landowner for a site for a construction crew trailer park to provide temporary housing for the duration of the Proposed Project construction. As a result, negative impacts to housing, community facilities and services, and population are not expected. Landowners would receive full market value for easements crossing their lands and would be able to continue using the ROW for crop farming, grazing, and most other uses. A negligible amount of land would be removed from permanent production, and any reduction in productivity should be temporary. Direct crop losses due to construction activities would be compensated for by Basin Electric through crop damage payments. Socioeconomic impacts would be temporary and insignificant.

Public Health and Safety: Transportation of materials would be in conformance with U.S. Department of Transportation regulations. Road, highway, and railroad crossings would have temporary H-frame safety structures installed to ensure conductors do not sag during installation. Construction crews would operate under applicable National Electric Safety Code and Occupational Safety and Health Administration regulations. While some risk of injury is always present on construction sites, compliance with regulations would hold this risk to a minimum.

Electric shock hazard would be minimized by maintaining proper ground clearances, which would allow the safe operation of farm machinery under the line. Should the line be damaged by severe weather, equipment at the substations would sense a fault and de-energize the line, preventing any shock hazard to maintenance workers or the public. An overhead ground wire will divert lightning strikes to the ground, protecting the transmission line. Stray and induced currents would be eliminated through proper grounding of metal objects, such as fences. Electric and magnetic fields (EMF) have been studied for over 30 years. Some studies have shown a possible connection

between EMF exposure and health, while other studies have not. In general, studies showing any correlation have shown statistical significance just above threshold values, and the statistical significance has not been replicated in subsequent studies. Research and debate continue on the subject of EMF, but thus far no deleterious health effects can be tied to transmission line EMF. In any case, EMF levels near a transmission line drop to background levels within 300 feet. No residences are located within 500 feet of the proposed transmission line, and population levels are very low in the Proposed Project area. The primary EMF exposure will continue to be occupational or residential exposure to fields in their own homes from electrical wiring and appliances.

Environmental Justice: There would be no disproportionately high or adverse health or environmental impacts on minority or low income populations as the result of constructing, operating, and maintaining the Proposed Project.

Visual Resources Setting: The proposed transmission line would introduce a linear feature to the rural crop and pastureland area that could be obtrusive to some viewers. Population densities are low, limiting the number of viewers. Basin Electric has worked with landowners to site the line so as to minimize the impacts, including visual impacts. The visual impacts to motorists would be low and short term; impacts are higher to area residents. Impacts are reduced with distance from the line, and the selection of single-pole structures should also lessen visual impacts. The rolling topography will partially hide the line, depending on the observer's location. The addition of the transmission line would result in unavoidable visual impacts, but they are considered to be less than significant.

Noise: The construction of the Proposed Project would generate vehicle noise for the 6- to 8-month duration of the construction phase. Operation of the transmission line, once completed, would not generate appreciable noise. Existing noise levels are established by wind, farm equipment operation, and vehicle traffic. Construction noise would be similar to farm equipment and would move from structure site to structure site. Noise would be very temporary at any given location as a result. Noise impacts would be sporadic and temporary at most locations and would cease with the completion of the Proposed Project.

Air Quality: The Proposed Project area is presently in attainment of the National and State Ambient Air Quality Standards. Construction equipment emissions would result in localized and temporary air quality impacts during construction activities. Construction equipment movement and operation would result in airborne dust. Compared with agricultural operations, the impacts to air quality from construction activities would be negligible. No Federal or State air quality standard would be violated by the construction of the Proposed Project.

Intentional Destructive Acts: Transmission lines can be the target of intentional destructive acts ranging from random vandalism and theft to sabotage and acts of terrorism. In this remote area, random vandalism (often damage to insulators from firearms) and theft are the major concerns. Vandalism risk should be low due to the predominance of private property and landowner vigilance. Substantial hardships would not result if the line were to be taken out of service due to an intentional destructive act, and the facility should be quickly returned to service.

Cumulative Impacts: The rural character of the area is expected to be maintained for the immediate future. The cumulative impact analysis identified a number of reasonably foreseeable future actions such as the approved Belfield to Rhame Transmission Line Project, MDU T1 – T2 Reconductoring Project, Williston to Watford Rebuild Project, Watford to Charlie Creek Rebuild Project, the T2 230/115 Transmission Line Replacement Project, and ongoing oil and gas field development that could contribute to cumulative impacts. None of the expected environmental impacts of the Basin Electric Proposed Project were found to be significant. It is not anticipated that the cumulative effects of this and those developments discussed above would be significant.

DETERMINATION: Based on the information contained in the EA, neither Western's Federal action nor Basin Electric's Proposed Project would result in significant environmental impacts. Western has determined that its action to approve the interconnection request does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, considering the impact mitigation measures and best management practices as described in the EA that are to be implemented over the course of the Proposed Project, preparation of an environmental impact statement is not required and Western is issuing this FONSI.

Issued at Billings, Montana, on MAY 7, 2010.

Robert J. Harris
Regional Manager