

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

**FINDING OF NO SIGNIFICANT IMPACT**

**Williston to Stateline Transmission Line Project  
Williams County, North Dakota  
DOE/EA-1896**

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

**ACTION: Finding of No Significant Impact**

**SUMMARY:** Mountrail Williams Electric Cooperative (MWEC), through Upper Missouri Generation and Transmission (UMG&T), has applied to the U.S. Department of Energy (DOE) Western Area Power Administration (Western) for a new electrical interconnection to serve oil and gas activities in the Williston area (Project). This Project would require the construction of an interconnect at Western's Williston Substation and a new 115-kilovolt (kV) transmission line which would extend about 16 miles northward from Western's Williston Substation to MWEC's Stateline Substation located at the Bear Paw Gas Plant. The Project also includes construction of the MWEC Judson Distribution Substation which will be located approximately 2 miles west of the Western Williston Substation. The MWEC distribution substation would occupy approximately 5 acres of a 25-acre parcel where Basin Electric Power Cooperative (BEPC) is proposing to build a substation in the future. The BEPC portion of the Judson Substation would be covered under a separate environmental review.

The entire proposed Project would be located in Williams County, North Dakota. In order for the Proposed Action to be constructed, Western must accept or deny UMG&T's interconnection request in accordance with Western's OATT. Western's acceptance or denial of UMG&T's interconnection request constitutes a Federal action under the National Environmental Policy Act. The environmental impacts were analyzed in the Williston to Stateline Transmission Line Project Environmental Assessment (DOE/EA-1896) (prepared December 2011) in accordance with applicable regulations.

Western's Federal action is limited to making a determination to accept or deny MWEC's interconnection request and to make any necessary system modifications to accommodate the interconnection of MWEC. It does not include the BEPC portion of the Judson Substation, although this Environmental Assessment (EA) analyzes and discloses the potential environmental impacts of the MWEC portion of the BEPC Judson Substation. In addition to addressing Western's action, the EA evaluates and compares the environmental impacts of two alternative transmission line routes and a No Action Alternative. Mitigation measures to minimize any environmental impacts were included directly in the Project proposal alternatives. To avoid further delays in review and concurrence/non-concurrence from the U.S. Fish and Wildlife (USFWS) North Dakota State Office on the Endangered Species Act (ESA), MWEC has made a business decision to voluntarily agree to the USFWS "recommendation" of marking the entire 16 miles of line with bird diverters (and not just the 7.6 miles of line determined to be

within 1 mile of suitable whooping crane stopover habitat by the biologist hired to perform a physical survey of the area). The EA identified no potentially significant impacts to environmental resources.

The EA was distributed to the public on December 23, 2011, and to the USFWS on January 6, 2012. The public comment period ended on February 3, 2012; no comments were received during the comment period.

Informal consultation under the ESA with USFWS was initiated. On May 3, 2012, USFWS issued a letter of concurrence with Western's finding that the Project may affect, but is not likely to adversely affect the whooping crane. That concurrence was based upon MWEC agreeing to mark the entire Project line with bird flight diverters and providing an equal number of diverters to the USFWS's Nebraska Field Office for installation on powerlines along the Platte River.

Recognizing MWEC's business decision to mark the entire 16 mile line with bird diverters, which was made to avoid further Project delay, and based on the information contained in the EA, Western has determined that approval of the interconnection request and MWEC's proposed Project does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of National Environmental Policy Act (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:

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For further information on the DOE NEPA process, contact:

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**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 Stateline Transmission Line Project, including the described impact mitigation measures outlined in the EA, will not have a significant impact on the human environment. Execution of the interconnection agreement would allow MWEC to interconnect their proposed new Williston to Stateline 115- 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 Stateline Transmission Line Project" (DOE/EA-1896), on Western's action and on MWEC's Project. The EA identifies and evaluates the potential environmental impacts associated with Western's decision on the interconnection agreement and of the Project. The EA is incorporated in whole by reference into this FONSI in accordance with 40 CFR 1508.13.

Prior to making a decision to approve the interconnection of the Williston to Stateline 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 Stateline 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. The EA evaluates and compares a single transmission line route option (an additional routing alternative was evaluated by the Project proponent early in the process and discarded as infeasible) as the single Action Alternative, as well as the No Action Alternative.

**WESTERN'S ACTION:** Western must decide whether to approve or disapprove MWEC'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, subject to NEPA review. 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 are conducted to determine the effects on power flows in the event interconnection requests are approved.

The applicant's objectives are also considered in Western's decision process. Subject to NEPA, interconnection requests are to be approved unless the transmission system would be adversely affected by the interconnection.

**PROJECT DESCRIPTION:** MVEC proposes to construct, own, operate, and maintain a new approximately 16-mile-long 115-kV transmission line, from the Williston Substation to its proposed Stateline Substation. The Project also includes construction of the MVEC Judson Distribution Substation approximately 2 miles west of Western's Williston Substation. The transmission line would interconnect with Western's grid at the Williston Substation, then cross privately-owned cultivated and grazing land in Williams County in northwestern North Dakota, and would occupy a 100-foot right-of-way (ROW) for single circuit configurations and a 150-foot ROW for double circuit configurations.

The proposed transmission system improvements would support MVEC'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, MVEC 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.

**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 Project, determine important issues, obtain local information relevant to the proposed Project, and in general scope and shape the EA analyses. The pre-decisional EA was distributed to the public on December 23, 2011, and to interested agencies on January 6, 2012. All correspondence is available at Western's Upper Great Plains Customer Service Regional Office.

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

**ALTERNATIVES:** Western's action is to respond to MVEC's interconnection request. If approved, Western would execute an interconnection agreement with MVEC and would make the modifications inside the Williston Substation necessary for the physical connection of MVEC's Williston to Stateline transmission line. Under the No Action Alternative, Western would not execute an interconnection agreement with MVEC, 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 MVEC's Project, and compare them to no action, it was assumed that the Project would not be constructed if the interconnection request was not approved. Since MVEC 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 Project as defined above is the only project that Western was requested to interconnect.

**ENVIRONMENTAL IMPACTS OF WESTERN'S ACTION:** Western's decision to execute the interconnection agreement would result in minor modifications within Western's Williston Substation.

The proposed interconnection would utilize an existing 115-kV transmission line termination position vacated by the upgrade of the Watford City 115-kV transmission line to 230-kV. No new surface disturbance will be necessary.

**ENVIRONMENTAL IMPACTS OF MWEC'S PROJECT:** The EA evaluated the potential for MWEC's Project to impact environmental resources found in the Project area. MWEC incorporated mitigation measures and best management practices in the description of its proposed Project. Western's 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 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 MWEC's efforts to work cooperatively with affected landowners. Each landowner had different priorities and concerns. MWEC worked successfully with the landowners to determine how alignments and structure locations could be adjusted to meet their individual needs and preferences to minimize impacts.

**Soils:** Soil disturbance would occur during construction activities from the Proposed Action from personnel and equipment through the ROW. Approximately 52 acres of construction disturbance would occur. Best Management Practices (BMPs) would be implemented to minimize erosion during construction and disturbed areas would be revegetated after construction is completed. During operation of the Project, maintenance personnel traveling on gravel roads and across ROWs would temporarily and intermittently impact soils. However, a measurable loss in soil productivity and a contribution to air or water degradation would not occur as a result of the day to day operation and permanent installation of the Project.

The transmission line poles and distribution substation would permanently impact about 2.5 acres of soil. A discountable loss in soil productivity as well as an insignificant contribution to air or water degradation would occur as a result of the Project.

**Air Resources:** During construction of the Project, there would be limited, temporary emissions from construction vehicles and equipment and fugitive dust from construction activities, especially on unpaved roads. Emissions would be influenced heavily by weather conditions and the specific construction activity occurring. Exhaust emissions, primarily from diesel equipment, would vary according to the phase of construction. Fugitive dust would be controlled by spraying the working area with water, as needed. Due to the temporary and intermittent nature of these emissions and the fact that the study area is currently in attainment for both Federal and state ambient air quality standards, impacts anticipated from the proposed transmission line would not result in a violation of ambient air quality standards. 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.

**Climate Change:** During construction, greenhouse gas (GHG) emissions from the proposed Project would result from the use of gasoline and diesel-powered vehicles. Furthermore, temporary disturbance of vegetation would result in a reduction of GHG storage in the Project Area. However, based on the small workforce and limited amount of temporary vegetation clearing for construction, GHG emissions would be negligible and below the United States Environmental Protection Agency Mandatory Reporting Threshold. With the No Action Alternative where no line is built, there is the potential for increased well flaring in the event of gas plant shut down due to no electrical service. Flaring of natural gas would necessarily result in increased GHG emissions.

**Water Resources and Quality:** Groundwater may be encountered during excavations for transmission line structures; however, the proposed Project is not expected to require dewatering. If dewatering is found to be necessary during construction (i.e., during pole embedding), the effects on water tables would be localized and short-term. Dewatered groundwater would be properly discharged to minimize erosion and facilitate infiltration back into the ground. The proposed transmission line would have no impact on either municipal or private water uses in the study area. No water storage, reprocessing, or cooling is required for either the construction or operation of the transmission line. Therefore, the proposed Project would not result in violations of groundwater quality standards.

The 115-kV transmission line would be designed to span and/or avoid surface water features, including streams and wetlands. Construction of the transmission line would not be expected to alter existing surface water drainage patterns due to the small cross section per pole and their relatively wide spacing. The typical distance between the majority of the structures would be 300 feet. No wetlands or wetland complexes within the ROW are wider than the maximum span distance. Access roads would be routed to avoid wetlands. The small area of impermeable surfaces created by the pole structures would not cause an increase in the susceptibility of the region to flooding.

Sediment reaching tributaries to Painted Woods Creek has the potential to adversely affect water quality downstream. MWEC would employ BMPs and adhere to the terms and conditions of the national pollution discharge elimination system permits during construction. These actions would protect topsoil and adjacent water resources and minimize and trap soil erosion before it could reach surface water resources. Maintenance and operation activities for substation or transmission line facilities are not expected to have an adverse impact on surface water quality.

**Vegetation:** The proposed Project was sited to follow existing distribution or transmission lines and along section and quarter section lines as much as possible. As a result, minimal impacts to mixed-grass prairie and agricultural vegetation are expected. No sensitive vegetation communities were identified in the Project impact area during the Natural Heritage Database search, nor were any observed during field surveys. Impacts to existing vegetation would be limited to areas where poles are located. Trees would be removed in several areas, while areas disturbed due to construction activities would be restored to preconstruction contours and, if

acceptable to the affected landowner, would be reseeded with weed-free regionally native seed mixes recommended by local land management agencies. No substantive impacts to vegetation resources are expected to result from the proposed Project.

**Wildlife:** The majority of wildlife species in the proposed Project area would temporarily relocate during construction activities and return after construction is complete. Avian collisions are a possibility after the completion of the transmission line. MWEC, pursuant to the Biological Assessment (BA), will conduct surveys for nesting birds prior to construction and will provide a construction buffer where necessary for construction conducted during breeding season.

Electrocution of large birds, such as raptors, can occur when birds come in contact with either two conductors or a conductor and a grounding device. Larger voltage lines (those above 69-kV) are less likely to cause electrocutions because the wires are spaced farther apart than on lower voltage lines. MWEC's transmission line design will meet Avian Power Line Interaction Committee guidelines (APLIC 2006) to provide adequate spacing between the conductors to minimize risk of raptor electrocution.

MWEC, Western, and USFWS all agree that line marking devices should be installed on lines within 1 mile of suitable whooping crane stopover habitat. The USFWS has not designated critical habitat for the whooping crane anywhere in North Dakota. While National Wetland Inventory (NWI) maps provide a starting point for all wetlands, some of the maps are over 10 years old, they contain some errors, wetland characteristics change over time, and they do not differentiate those wetlands suitable for whooping crane stopover habitat from wetlands in general. As a result, MWEC hired a biologist to do an actual field survey, with recognized criteria, to determine where suitable stopover wetlands exist within 1 mile of the transmission line, resulting in a finding of 7.6 miles of line within the 1 mile of suitable stopover habitat. The USFWS's concurrence with Western's determination of may affect, but not likely to adversely affect the whooping crane, was based on marking the entire line with diverters and providing a like number of diverters for marking lines elsewhere in the migration corridor.

There have been no recorded whooping crane deaths due to transmission line collisions in North Dakota in 50 years. Western recognizes that marking lines within 1 mile of suitable whooping crane stopover habitat minimizes what remote risk there is for such a collision. The requirement or suggestion that marking a similar distance of line (2-for-1 marking), somewhere else in the vast multi-state migration corridor, does nothing to mitigate the risk of a collision with the Project transmission line.

Western notes that MWEC has gone to significant expense in hiring a biologist to do field surveys to identify appropriate stopover habitat for the whooping crane, which is reasonable and prudent, rather than marking the entire line based on outdated NWI maps. For this Project only, and as a result of a business decision to avoid further delay, MWEC made the business decision to mark the entire line with diverters (and provide a like number of diverters to the USFWS office in Nebraska for use in that state), which conforms to the "recommendations" made by the North Dakota USFWS office prior to its issuance of its May 3, 2012, concurrence letter.

Recognizing MWEC's business decision to mark the entire 16-mile line with bird diverters to avoid further Project delay, and based on the measures identified in the EA, the proposed Project would not result in listing of or jeopardizing the continued existence of any wildlife species.

**Special Status Species:** There are five Federally listed endangered and threatened species and one candidate species that could occur in the general area of the proposed Project. The four listed endangered species are the pallid sturgeon, interior least tern, whooping crane, and the gray wolf. The one threatened species is the piping plover, and the Sprague's Pipit is the one candidate species.

The proposed Project would have no effect on the pallid sturgeon, gray wolf, and piping plover designated critical habitat. The gray wolf may pass through the Project area. However, it is unlikely that gray wolves would be present during construction and operation, with the possible exception of an occasional transient animal. Western has also determined that MWEC's proposed transmission line may affect, but is not likely to adversely affect, the least tern, piping plover, and whooping crane. The Project area is located within the whooping crane migration flyway and four wetlands were identified that offer suitable whooping crane stopover habitat. MWEC will comply with recommended mitigation measures described in the BA to minimize risk to the whooping crane. This includes marking the static wire within a 1-mile length of each of the four wetlands with bird diverter devices. With regards to the Sprague's Pipit, the Project is not expected to fragment core suitable pipit habitat and minimization of habitat disturbance is expected to not adversely affect the Sprague's Pipit.

The North Dakota Game and Fish Department (NDGFD) has identified 100 Species of Conservation Priority (SoCP) across the state in its Wildlife Action Plan (Hagen et al. 2005). These species are considered important for conservation in the state of North Dakota but do not have any legal protection. Twenty-seven species have been identified in the Missouri Coteau geographic region, including seventeen level I species, ten level II species, and no level III species. NDGFD places the most emphasis on level I species. No SoCP or significant ecological communities are known to occur within 1 mile of the proposed transmission line.

**Socioeconomics:** Construction and operation of the transmission line and substation would not affect any community facilities in Williston or Williams County. No residences or agricultural buildings in the county would be displaced. Socioeconomic impacts resulting from the proposed transmission line would be primarily positive on a long term basis. The additional power supplied to the area would allow oil extraction activities to continue to grow, resulting in new job opportunities for at least the next 15 years (Seifert 2009). 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. Landowners would receive financial compensation for potential farmland losses because of surface disturbance as a result of the construction and new infrastructure.

**Environmental Justice:** The proposed Project would not displace any residents. There are no low-income, minority, or subsistence populations in or around the study area that would be disproportionately affected. No residents will be displaced by the Project. No substantive direct, indirect, or cumulative impacts to minority or low-income populations would result as the result of constructing, operating, and maintaining the proposed Project.

**Transportation:** Constructing the proposed Project will require temporary access along an approximate 3.8-mile route. No major grading or filling is anticipated for the access road. The amount of traffic increase in the construction area and local roads is considered negligible in comparison to other non-related construction travel and is not expected to impact the capacity of any route or level of service.

**Visual:** The proposed Project would be visible (in the middle and foreground) to those traveling on highways and county and township roads. Trees would be removed, but large-scale tree clearing would not be required. For most of the route, the visual impact from the proposed transmission line would be negligible or only incremental compared to existing conditions. Overall, the proposed transmission line would not dominate the view shed or visual resources in the area.

**Noise:** The proposed Project is in a rural area. Ambient noise in rural areas is commonly made up of wind and rustling vegetation, intermittent farm equipment operation, and infrequent vehicle pass-bys. There are seven sensitive noise receptors within 500 feet of the proposed transmission line; two of these are within 1,000 feet of the MWEC distribution substation. However, the transmission line and substation noise level at these receptors is expected to be less than the background noise levels which are influenced by Highway 2. They would not contribute to a change in overall noise levels.

The other five receptors are located further north and in rural areas which may experience low ambient noise levels made by natural sources such as wind and insects. Construction noise would be similar to farm equipment and would move from structure site to structure site. Noise would be 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 Project.

**Health and Safety:** The proposed Project would be designed to comply with applicable local, state, and National Electrical Safety Code (NESC) standards regarding worker safety, clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and ROW widths. Construction crews would comply with local, state, NESC standards, Western regulations, and MWEC standards regarding installation of facilities and standard construction practices. Established MWEC and industry safety procedures would be followed during and after installation of the transmission line. This would include clear signage during all construction activities. The proposed Project would be equipped with protective devices to safeguard the public from the transmission line in the unlikely event that an accident occurs and a structure or conductor falls to the ground. The protective devices are breakers and relays located where the line connects to the substation. This protective equipment would de-energize the line in the unlikely event that such a situation occurs. In addition, the substation facility

would be fenced and access would be limited to authorized personnel. Therefore, the Proposed Action would not be expected to cause an increase in the frequency or severity of worker injuries to a level above MWEC's average.

The proposed Project would create electric and magnetic fields (EMF) arising from the flow of electricity and the voltage of transmission lines. The voltage of the transmission line, current flow in the conductors, weather conditions, and the design of the transmission line can cause electrical environmental effects. The proposed transmission line has been routed to avoid placing the line near occupied residences. Maximizing the distance from residences was a primary factor in choosing the preferred route. Since the location of the Project is in a rural area, and the closest residence is approximately 500 feet away, magnetic field levels would also not be a concern. No impacts to human health and safety from EMFs are anticipated.

**Archaeological and Historic Resources:** A Class I records search was completed to review and contextualize any previous surveys and reports conducted within 1 mile of the area of potential effect. The records search included a review of existing cultural resources documentation on file at the State Historic Preservation Office (SHPO) and a review of Government Land Office records and maps. This is included in the Class III Intensive Cultural Resource Inventory for the direct area of potential effect in the EA. For the proposed route, 19 previously recorded surveys or investigations and 10 previously recorded cultural resources fell within 1 mile of the area of potential effect in Williams County.

The SHPO concurred with the finding "No Historic Properties Affected" determination by letter dated February 21, 2012, provided five identified archeological sites were avoided by at least a 15-meter buffer zone and that no construction takes place within those zones. In addition, monitoring by an archeologist along the three terraces of Painted Woods Creek and one terrace associated with an unnamed tributary of Painted Woods Creek was encouraged.

**Native American Consultation:** Western initiated consultation with nine Native American tribes or communities who have historical affiliation to the general Project area in August 2011. No comments were received from any of the Native American tribes or communities. No Traditional Cultural Use Areas, sacred sites, or other potentially sensitive areas were identified within the area of potential effect and no Native American Religious concerns were identified.

**Cumulative Impacts:** Agricultural practices; oil and gas development; vehicle travel along gravel and paved township, county, state, and Federal roadways; and operation of existing electric transmission facilities are the primary activities that have occurred and are presently occurring in the proposed transmission line area and more generally in Williams County.

The cumulative impact analysis identified a number of reasonably foreseeable future actions such as BEPC's 345-kV transmission line and Judson substation and the Bear Paw Gas Plant. None of the expected environmental impacts of MWEC's transmission line project were found to be significant. It is not anticipated that the cumulative effects discussed above would be significant.

**DETERMINATION:** Based on the information contained in the EA, Western has determined that its action to execute the interconnection agreement 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 BMPs included as part of the proposed Project as described in the EA, to be implemented over the course of the Project, preparation of an environmental impact statement is not required, and Western is issuing this FONSI.

Issued at Billings, Montana, on     MAY 4    , 2012.

A handwritten signature in cursive script that reads "Robert J. Harris".

Robert J. Harris  
Regional Manager