

Charlie Creek to Garrison Transmission Line Rebuild Project

*Finding of No Significant Impact and Decision
Document*

*Mercer, Dunn, and McKenzie Counties, North
Dakota*



**Western Area
Power Administration**

DOE/EA-2093

January 2020

AGENCY: U.S. Department of Energy (DOE), Western Area Power Administration (WAPA)

ACTION: Determination of Finding of No Significant Impact and selection of Proposed Action for implementation.

SUMMARY: WAPA's Charlie Creek to Garrison (CCR-GA) 115-kilovolt (kV) transmission line, located in Mercer, Dunn, and McKenzie Counties, North Dakota, is over 65 years old. Many of the wood H-frame structures from the original construction are still in use today but have begun to rot. These structures require increasing amounts of maintenance to ensure worker safety and line reliability. The line is approaching the end of its useful service life and is experiencing equipment failures and unscheduled outages, which inhibits WAPA's ability to provide reliable power to customers. Because of these issues, WAPA has proposed to rebuild 95 miles of the existing CCR-GA transmission line (Project).

WAPA prepared an Environmental Assessment (EA) (*Charlie Creek to Garrison Transmission Line Rebuild Project, DOE/EA-2093*) to analyze the potential environmental impacts of the Proposed Action and alternatives.

FOR FURTHER INFORMATION, CONTACT: A copy of all associated NEPA documents are available at the following website:
<https://www.wapa.gov/regions/UGP/Environment/Pages/environment.aspx>.

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PROPOSED ACTION: WAPA's Proposed Action is to rebuild the CCR-GAR transmission line. The work would be segmented into 4 (or more) phases and would entail:

- Upgrading the line capacity by replacing the existing conductors with larger conductors,
- Replacing the existing wooden structures with new taller wooden structures to accommodate the larger conductor, and
- Installing fiber optic communication capability to one of the overhead ground wires.

ALTERNATIVES: DOE requires that EAs include a "No Action" alternative (10 CFR §1021.321(c)). The EA presented a "No Action" alternative, which assumed the rebuild would not occur and the line would be operated and maintained at its current level of 115 kV within the existing 75-foot wide right-of-way (ROW) and repairs to individual structures would take place on an as-needed basis as they fail.

PUBLIC INVOLVEMENT: WAPA notified stakeholders of the project and solicited information on their concerns through informal phone calls and email correspondence. The federal agencies

contacted included U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (COE), U.S. Forest Service, and the Federal Emergency Management Agency. In addition, baseline information on area resources was collected using existing literature and site visits.

Public notice and other project materials are posted at WAPA's website, available at the following link: https://www.wapa.gov/regions/UGP/Environment/Pages/CCR_GA.aspx. In addition to the website, interested members of the public were notified of the draft EA and comment opportunities via announcements in the following newspapers:

- McKenzie County Farmer
- MHA Times
- Dunn County Herald
- Hazen Star
- Beulah Beacon

Federal, state and local governments and other interested organizations and stakeholders were notified of the draft EA via official correspondence dated October 28, 2019.

WAPA received six comments on the draft EA.

ENVIRONMENTAL IMPACTS: The EA disclosed the potential environmental impacts of the Proposed Action and No Action alternatives. A summary of environmental impacts for each resource area is described below.

Air Quality: Both alternatives are expected to increase fugitive dust during construction and maintenance activities and release emissions (criteria pollutants and greenhouse gasses) from construction and maintenance vehicles.

Solid and Hazardous Waste: Both alternatives would generate solid waste materials. Examples include wood poles, conductor and overhead groundwire, hardware, and porcelain insulators. These would be reused, recycled, or as a last resort, disposed of in an approved waste facility.

Transportation and Traffic: The Proposed Action would have a greater impact on transportation and traffic than the No Action because a larger number of equipment and vehicles would be used during the construction timeframe, but both alternatives are expected to result in intermittent and localized traffic increases during routine operation and maintenance (O&M).

Soils: Soil compaction, increased erosion or erosion potential (as a result of changes in slope), and mixing of soil layers is expected from both alternatives.

Within the existing ROW, soils were previously disturbed during original construction of the transmission line. The Proposed Action would require additional easements. The exact acreage/length of these easements is currently unknown, but new soil impacts would occur throughout those easements as well.

Water Resources: WAPA purposefully aims to install structures at least 300 feet from floodplains, rivers, streams (including ephemeral [intermittent] streams), ponds, lakes, and reservoirs. With the use of spanning and siting, direct impacts to water resources are avoided, although both alternatives could still result in indirect impacts such as sedimentation or pollution from spills and leaks.

WAPA's current maintenance activities are typically authorized under Nationwide Permit 12, which allows for activities necessary for the construction, maintenance, repair, and removal of utilities lines and associated facilities in waters of the U.S., so long as those activities do not result in the loss of more than 0.5 acres of U.S. waters. WAPA expects that future maintenance activities as part of either alternative would continue to be authorized via Nationwide Permit 12.

As part of the Proposed Action, for any new structure locations that cannot span water resources, WAPA would complete a survey of the water resource and coordinate with the COE to ensure compliance with the Clean Water Act. WAPA would also ensure that proposed structures are designed to withstand 100-year flood events, that structure placement would not alter surface water flow characteristics of a floodplain, change drainage patterns, or impede or redirect flood flows.

Vegetation: Both alternatives would impact vegetation. The types of impacts would be similar between the alternatives, but the timing and intensity of impacts would be different. The impacts of the Proposed Action alternative would occur during a concentrated construction phase, followed by less intense routine maintenance, whereas the No Action alternative would have no dedicated construction phase but more frequent and extensive routine maintenance activities.

The types of disturbances include removal via blading, mowing, trimming, and grading, crushing or trampling by equipment, and reduced productivity due to soil compaction. Most of the vegetation in the existing ROW was cleared and leveled during construction of the original transmission line, however, surface conditions have changed over time and some locations may need additional leveling or clearing. Vegetation that recovered or grew since original construction would again be disturbed at wire pulling sites, structure assembly and staging areas. In addition to the impacts described above, new vegetation disturbance would occur in areas where additional access easements or ROW are acquired as part of the Proposed Action.

There are a handful of unique vegetation sites in the Project footprint: the westernmost 2.5 miles of the existing transmission line is in the Little Missouri National Grassland; six miles of existing transmission line (43 structures across 52 acres of right-of-way) cross areas that could contain 60% or greater native grasses, and; the existing transmission line also crosses 3 miles of the Lake Ilo National Wildlife Refuge.

Fish and Wildlife: Most impacts to wildlife individuals would be short term and intermittent. During construction and maintenance activities, wildlife behavior would be modified by human presence – avoidance behaviors and displacement are expected. During operation of the transmission line, no wildlife response is expected, with the exception of avian wildlife. Operation of the transmission line poses an electrocution and collision risk to birds. Design of the transmission line requires spacing and grounding equipment that makes bird electrocutions unlikely.

WAPA has been in contact with Lake Ilo Refuge staff and determined that both alternatives are compatible with the purposes of the Refuge because they are an existing use that will not materially interfere with or detract from the fulfillment of the Refuge system mission or purposes.

WAPA has determined the Proposed Action may affect, but is not likely to adversely affect the whooping crane and the Dakota skipper. The USFWS concurred with this determination on June 6, 2019.

Land Use: Construction and operation of the transmission line would occur, primarily, within the existing ROW and would not alter or impede present land uses. Existing land uses would not be affected by either the Proposed Action or No Action alternative, except for the possible temporary disruption of farming activities.

Neither alternative would convert farmland to non-agricultural uses. Short-term impacts to prime farmland could include reduced productivity due to soil compaction. Long-term impacts could include erosion, either by wind or water, and any contamination by release of regulated materials.

Cultural Resources: WAPA and the North Dakota SHPO (SHPO) determined that both the proposed action and no action alternatives meet the definition of a maintenance activity and thus, SHPO concurrence is not necessary. WAPA has prepared an Archeological Monitoring and Controlled Testing Plan (treatment plan) that outlines the process for handling any newly identified sites along the transmission line and avoiding impacts to known sites. The treatment plan will be used for consultation purposes with other federal and state agencies that own land or have an interest in property along the ROW.

Generally, impacts to cultural resources could occur during all Project activities, including site preparation, access road use, structure removal and installation, and on-going O&M. Increased traffic can lead to destruction of sites by unauthorized vehicles driving over the site surface. Also, increased pedestrian traffic can lead to vandalism of sites including artifact collection, destroying existing standing structures, and “trashing” sites and sacred areas.

Specifically, Phase 1 of the Proposed Action contains 92 known archaeological sites and 12 architectural properties. Structure location plans for project Phases 2 through 4 have not yet been designed, however, these phases will also be subject to the requirements of the treatment plan and to continued consultation as per Section 106 of the National Historic Preservation Act.

Visual Resources: Because both alternatives would occur within the existing alignment, no new impacts to the view shed are expected. The Proposed Action would result in poles that are roughly 10-15 feet taller than the existing poles. The new poles would be more visible than the existing poles.

Construction and O&M activities would cause short-term visual impacts due to the presence of vehicles, vegetation removal, and general human activity.

Environmental Justice: The alternatives are not expected to have adverse impacts to any population, including minority or low-income populations.

Health and Safety: The ROW would keep future development from encroaching on the transmission line, which in turn would reduce the potential for electric and magnetic field (EMF) or coronal noise effects to adjacent structures and inhabitants. EMF exposures within the ROW are expected to be short-term, such as during O&M activities, driving under the line for farming/ranching activities, or

other transient activities. Long-term EMF exposure above the Environmental Protection Agency recommended levels is not expected.

Cumulative Impacts: WAPA did not identify any new cumulative impact effects as a result of the No Action alternative because this alternative is a continuation of the existing condition. The Proposed Action alternative, along with other past, present, and future projects in the area, would contribute incrementally to impacts on a variety of resources. For example, in areas where new easements and ROW are acquired, there would be incremental increases in soil disturbance, habitat fragmentation, changes in land use, and visual disturbance. Cumulative impacts as a result of the Proposed Action are expected to occur on a local scale, but not on a regional or national scale.

ENVIRONMENTAL COMMITMENTS: Regardless of the alternative, impacts to all resources would be reduced by the use of WAPA's Standard Mitigation Measures for Construction, Operation and Maintenance of Transmission Lines and Construction Standard 13, Environmental Quality Protection. These environmental commitments have been embedded as a required component of both alternatives and are listed in Appendices B and C of the EA.

FINDING: WAPA evaluated the potential environmental impacts at a variety of contexts, including national, regional, and local scales and intensities. WAPA identified no significant impacts to environmental resources or the human environment, either individually or cumulatively with other actions in the general area, which would result from the Proposed Action or No Action alternatives.

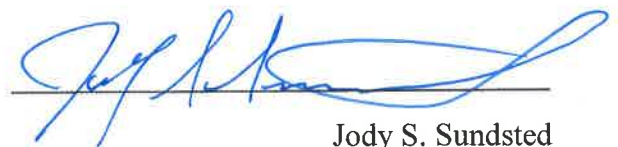
The principal reason for the lack of significant environmental impacts is the presence of the existing transmission line and the use of avoidance measures and environmental commitments as a required component of the project. Additionally:

- The EA includes a floodplain and wetland assessment, as required by Department of Energy (10 CFR part 1022). WAPA has determined that both alternatives conform to applicable floodplain protection standards. No modifications to floodplains or flow patterns would result.
- The anticipated effects are not highly uncertain nor highly controversial.

WAPA has found the project does not constitute a major Federal action significantly affecting the quality of the human environment. As a result, a Finding of No Significant Impact (FONSI) is warranted and an Environmental Impact Statement will not be prepared. 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).

DECISION: WAPA has selected the Proposed Action alternative, including all environmental commitments and minimization measures described in DOE/EA-2093, for implementation.

Issued in Billings, Montana on January 31, 2020.



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