

DEPARTMENT OF ENERGY
Western Area Power Administration
Finding of No Significant Impact
Culbertson Combustion Turbine Generator Project, Montana

Summary – Basin Electric Power Cooperative (Basin Electric) applied to the U.S. Department of Energy (DOE), Western Area Power Administration (Western) to interconnect the Culbertson Combustion Turbine Generator Project (Project), near Culbertson, MT to Western's Williston to Wolf Point 230KV (capacity, but currently operation at 110KV) line. Western proposes to modify its transmission system to accommodate new generation resources from the peaking facility into the transmission system. Basin Electric would own and operate the peaking facility and associated features.

Basin Electric also applied to the Rural Utilities Service (RUS) for funding for the peaking facility. The RUS prepared an environmental assessment (EA) for the Project, Culbertson Combustion Turbine Generator Project Environmental Assessment. The EA was made available for public and agency review on April 5, 2009. The review/comment period was 30 days. The RUS received no comments or concerns regarding the Project during the 30-day comment period. Based on these findings the RUS issued a Finding of No Significant Impact (FONSI) on June 24, 2009. After an independent review of the Final EA, Western has concurred with this finding, and hereby adopts the EA (DOE EA-1672). Based on the EA findings, Western has determined that the proposed Project would not result in any significant environmental impacts, and the preparation of an environmental impact statement (EIS) will not be required. The basis for this determination is described in this FONSI.

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

Matt Marsh
Upper Great Plains Customer Service Region
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
Phone: (406) 247-7385
Fax: (406) 247-7408
email: mmarsh@wapa.gov

For general information on DOE National Environmental Policy Act (NEPA) activities contact:

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

Purpose and Need – Western is a Federal power-marketing agency in the Department of Energy (DOE) that sells and delivers Federal electric power to municipalities, public utilities, Federal and state agencies, and Native American tribes in 15 western and central states. The Proposed Action is located within Western’s Upper Great Plains Customer Service Region, which operates and maintains nearly 90 substations and more than 8,000 miles of Federal transmission lines in Minnesota, South Dakota, North Dakota, Montana, Nebraska, and Iowa.

Western offers capacity on its transmission system to deliver electricity when such capacity is available under Western’s Open Access Transmission Tariff (Tariff). The Tariff has been approved by the Federal Energy Regulatory Commission as being consistent with the Commission’s Final Order Nos. 888, 888A, 888B, and 888C, which are intended to ensure non-discriminatory transmission system access.

Western has received a generation interconnection request from Basin Electric to connect the Culbertson Combustion Turbine Generator to Western’s existing Williston to Wolf Point transmission line. The interconnection with Western’s transmission system would require the addition of a new substation to the existing Western line and would allow the addition of new generation resources into Western’s transmission system. According to DOE’s NEPA Implementing Procedures (10 CFR Part 1021) these actions require environmental review.

In responding to the need for agency action, Western must abide by the following:

- Addressing Interconnection Requests. Western’s *General Guidelines for Interconnection* establishes a process for addressing applications for interconnection. The process dictates that Western respond to the applications as presented.
- Protecting Transmission System Reliability and Service to Existing Customers. Western’s purpose and need is to ensure that existing reliability and service is not degraded. Western’s *General Guidelines for Interconnection* provides for transmission and system studies to ensure that system reliability and service to existing customers is not adversely affected. If the existing power system cannot accommodate the applicant’s request without modifications or upgrades, the

applicant may be responsible for funding the necessary work unless the changes would provide overall system benefits.

- **Consideration of the Applicant's Objectives.** Because the statement of Purpose and Need affects the extent to which alternatives are considered reasonable, it is important to understand both Western's Purpose and Need and that of the applicant.

Project Description – Basin Electric proposes to own and operate a 100 megawatt (MW) simple cycle gas turbine at the Culbertson Combustion Turbine Generator Project in northeastern Montana. Generation from the Project would be used to meet member load growth during heavy electrical use times in every consumer class, primarily during summer months and in anticipation of additional growth in commercial load throughout Basin Electric's service area. The facility includes a gas-fired combustion turbine using natural gas for fuel and associated ancillary equipment and buildings for operation. Generation from the Project would not exceed 50 average megawatts annually.

Western's action for the Project involves modifying the existing Williston to Wolf Point 230KV line for the addition of a substation to physically connect the project and authorization of a generation interconnection. A new substation would be required to accommodate transmission service. If approved, Western would enter into a contract with Basin Electric to authorize interconnection with Western's transmission system through a Large Generator Interconnection Agreement.

Western analyzed the environmental impacts associated with the Project, which includes operation of the peaking generation facility and ancillary facilities. DOE's NEPA Implementing Procedures require an EIS to be prepared for the addition of new generation resources greater than 50 average annual MW. Because of this restriction, Basin Electric has agreed to limit the yearly electrical energy output to less than 50 average annual MW for the Culbertson Generation Station. If the 50 average annual MW limit is exceeded, Basin Electric shall provide Western with monthly reports thereafter, for the remainder of the calendar year documenting the running average generation output. If the 50 average annual MW limit is exceeded during a calendar year after a violation, Basin Electric's Culbertson Combustion Turbine Generator Project interconnected to the Williston to Wolf Point 230KV line shall be taken off-line, and shall remain off-line for the remainder of that year and may once again be interconnected the following year. Basin Electric may, at any time, request that Western authorize an increase above the 50 average annual MW limit. Upon request, Western would determine what additional NEPA compliance is necessary.

Alternatives -- DOE's NEPA regulations require that an EA include a discussion of the no action alternative (10 CFR 1021.321(c)). The no action alternative provides a baseline against which the effects of the proposed action may be compared. Under the no action alternative, the proposed action would not be implemented and the site-specific and direct impacts associated with the proposed Project would not occur in the Project area.

Environmental Impacts -- Western's conclusions about the proposed Project's environmental impacts are based on information contained in the EA. That document is available upon request. In reaching conclusions about the proposed Project's environmental impacts, Western has considered the best management practices (BMP) and environmental protection measures proposed by RUS and Basin Electric.

The existing environment and the potential environmental impacts were identified and evaluated for the following resources:

- Air Quality
- Geology and Soils
- Water Quality
- Floodplains
- Wetlands
- Coastal Areas
- Fish and Wildlife Resources
- Vegetation
- Threatened and Endangered Species
- General Land Use – Prime Farm Land, Range Land, or Forest Land
- Land Use – Formally Classified Lands
- Cultural Resources
- Aesthetics
- Transportation
- Noise and Electromagnetic Communications Interference
- Human Health and Safety
- Socioeconomic and Community Resources

Based on the EA, Western concludes that, with the BMPs and environmental protection measures proposed for the Project, operation of the proposed Project would not require mitigation beyond that already proposed by RUS and Basin Electric to mitigate potentially adverse environmental impacts. The basis for Western's conclusions about the impacts to these resources from the proposed Project is summarized below.

Air Quality – Increased vehicle use and normal construction activities would result in short-term increases in transient and localized fugitive dust emissions. Standard mitigation measures such as water application and speed limitations would be used to reduce these effects. Fugitive dust emissions related to post-construction activities would be limited, transitory, infrequent, and localized. Combustion emissions from the gas turbine would be mitigated in accordance with Best Available Control Technology requirements in the Montana air quality regulations. The combustion turbine generator (CTG) facility would be required to obtain air quality construction and federal operating permits that would ensure compliance with all state and federal air quality regulations, including continued attainment of ambient air quality standards. No future development

is planned in conjunction with this Project. The Project is not expected to result in significant adverse direct, indirect, or cumulative impacts to ambient air quality.

Geology and Soil – An analysis of soil permeability and slopes in the Project area indicates inherent characteristics to mitigate potential soil erosion effects related to construction activities. Additionally, a Storm Water Pollution Prevention Plan – required by a Montana Pollutant Discharge Elimination System (MPDES) permit – would direct erosion control and monitoring practices to further mitigate potential soil erosion resulting from construction activities. Soil compaction effects would be minimal in scope and would be contained following best construction practices. No potentially hazardous geological characteristics were identified that could pose a threat to the safe operation of the Project. While some surface grading will be required for construction of Project facilities, no significant direct, indirect, or cumulative adverse impacts to the topography, soils, or geological resources of the Project area are anticipated as a result of the Project.

Water Quality – Water demand for CTG operation would be supplied by a rural utility from its existing reserve. Water used for maintenance or operation of the CTG would not be discharged but would be collected in underground tanks designed, installed, and monitored according to accepted industry standards. The collected waste water would be disposed at a licensed off-site facility. Sanitary waste would be discharged to an onsite septic system designed and constructed in accordance with appropriate regulations and guidelines. Storm water runoff associated with construction activities would be mitigated in accordance with terms of an MPDES permit obtained for the Project. Similar practices would mitigate effects of storm water runoff associated with operation of the Project. Combined natural and imposed mitigation would ensure that adverse direct, indirect, and cumulative impacts to water quality in the Project area would be insignificant.

Floodplains – It has been determined that the Project is not located within a 100-year floodplain. The Project and no-action alternative would have no significant environmental impact or cumulative effects on floodplains in the area due to CTG, Transmission Line corridor or Substation segments.

Wetlands – The Project would not be located in or near wetland areas and is not expected to result in destruction of any wetland areas. The Project will therefore not result in a significant environmental impact or adverse cumulative effects on wetlands.

Coastal Areas – The Project and related segments are not located within or near a coastal area. The Project is not expected to have any environmental impact on coastal areas.

Fish and Wildlife Resources – No surface waters exist within the Project area, and no impacts from the project are expected on surface waters in the region. Thus, impacts to fish are precluded. Short-term direct impacts to wildlife from construction would include mortality or displacement of individual animals at the construction sites, and loss or alteration of limited amounts of habitat. Any species potentially affected would be common in the general area, and this impact would have little significance on local populations. Long-term impacts would include alteration or removal of negligible amounts of habitat relative to the amount of habitat available in the area. Since none of

the affected habitats is considered to be unique or critical to wildlife, this impact would also be considered insignificant.

Vegetation – The CTG facility site, Substation site and most of the Transmission Line and cable route would be located in previously cultivated fields that are either seeded in introduced grasses or used for dryland hay. All habitats potentially affected by the Project are considered to be common in the general vicinity. None are considered to be unique or critical. Construction impacts to native shortgrass prairie would be temporary and short-term. A very small amount of native grassland would be disturbed for the long-term by placement of structures required for the Project. This loss would not be considered significant in comparison to the availability of this habitat in the area.

Soil disturbance would increase the potential for introduction of noxious weeds, and could add incrementally to the cumulative effect of noxious weed encroachment in the region. Any noxious weed infestations that might develop after construction would be managed in accordance with Roosevelt County or other applicable weed district requirements.

Threatened and Endangered Species – The Culbertson Project area does not constitute habitat for any of the threatened or endangered species listed for Roosevelt County. The Project area would contain known or possibly suitable habitat for nine Species of Concern listed by the Montana Natural Heritage Program (MTNHP) for Roosevelt County. A field study concluded that the Project area does not contain suitable habitat for most of the Species of Concern potentially occurring in the region but contains marginal habitat for some. Considering the relative lack of habitat suitable for sensitive animal species and the limited extent of the Project area, the Project would not jeopardize the continued existence of any federally- or state-listed threatened or endangered species, nor result in the destruction of or adverse modification of a critical habitat. Accordingly, no significant impact or adverse cumulative effect on federal or state protected species is expected.

General Land Use - Prime Farm Land, Range Land, or Forest Land – Ranching and farming are the principle agricultural activities in the vicinity of the Project. The combined footprints of the CTG plant, the Substation, and the electrical Transmission Line and cable route would minimally impact existing agricultural uses. The CTG facility would occupy an area of no more than 95 acres. No more than 20 additional acres would be used for the Substation. The Transmission Line corridor would largely be available for other uses. The underground fiber optic cable would not impact surface uses. A net loss of approximately 54 acres of farmland of statewide importance may occur as a result of the Project, but the impacts on farm land or range land in the area are expected to be insignificant considering the amount of available farmland in the area and the marginal value rating assigned by the Natural Resources Conservation Service (NRCS) to the affected area.

Land Use - Formally Classified Lands – The Project would be located near, but not on, Formally Classified Lands including Native American reservations, wilderness areas, and

BLM-administered lands. Nevertheless, the project is not expected to have a significant direct or indirect impact on those lands, nor are any cumulative effects anticipated.

Cultural Resources – No sites of archeological, tribal, or historical value that are listed or eligible for listing on the National Register of Historical Places (NRHP) have been identified that would be impacted by the Project. The Project is not known or anticipated to have any significant adverse cumulative effects on cultural resources.

Aesthetics – The Project area is characterized by a combination of rolling hills and extensive flat areas of agricultural lands and rangeland. The CTG facility would be located near an existing underground pipeline compressor station and within five miles of existing electrical transmission lines. The Substation would involve a small area with new facilities in an area where power line facility development is common.

There are no scenic viewpoints or scenic roads in the Project area. The Project would not obscure an important landscape, interrupt a scenic view, be visible from an important cultural resource, or be located in the immediate foreground observed by the public at-large. The Project is expected to have minimal impacts on aesthetic resources and no known or foreseeable Project-related adverse cumulative effects.

Transportation – Construction of the Project is expected to cause only temporary and insignificant adverse transportation effects. Short-term impacts would include minor traffic delays caused by construction activities and equipment movement to and from the sites. Short-term roadway closings, if required, would be scheduled with appropriate local authorities. Delay routes during equipment movements would be clearly marked and detour routes would be provided as necessary. The Project is not expected to have significant direct, indirect, or cumulative impacts on the existing transportation systems of local towns, counties, and the state.

Noise and Electromagnetic Communications Interference – The Project is located in sparsely populated rural areas. Noise from either construction or operation of the Project is not expected to exceed any local, state, or federal guidelines at sensitive receptors such as nearby residences or businesses. Noise associated with construction of the Project would be intermittent and of relatively short duration. Project components would be fabricated off-site and shipped to the construction location by rail or highway. The Project is not expected to result in significant noise impacts within the area or significantly contribute to any cumulative adverse noise effects.

The Project would be constructed according to current National Electrical Safety Code (NESC) and Federal Communications Commission electrical interference standards. It is not expected to cause significant long-term or widespread interference with radio, television, and cellular telephone signals.

Human Health and Safety – The Project would be designed in accordance with NESC standards. Further, public access to potential hazards would be restricted. The Project would not be expected to result in adverse direct, indirect, or cumulative impacts to human health and safety.

Socioeconomic and Community Resources – No measurable adverse direct or indirect impacts to local communities are expected over the reasonably foreseeable future life of the Project. Measurable positive indirect impacts to local communities would be expected to result from increased demand for local goods and services during construction and, to a lesser extent, during operation of the Project. The stated purpose of the Project is to create beneficial impacts to Basin Electric customers in the form of electrical supply sufficient for existing and future needs.

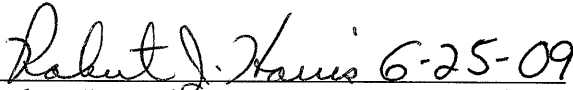
The Project would not pose any significant adverse impacts to the human environment. No disproportionate environmental effects would be experienced by minority and low-income populations.

Cumulative Impacts: Because the Project is located in a relative stable farming community, no currently existing or substantial industrial activity is planned near the Project site. The power plant would comply with its air permit and would not contribute significantly to air pollution in the area. Based on the BMPs and the location of the Project in a rural area with no industrial activity, Western concludes the Project, when added to other past, current, and reasonably foreseeable actions in the Project area, would not result in a cumulative significant impact.

Plant Decommissioning: At the end of the useful life of the plant, the power plant would be dismantled and disconnected from the substation. The site would be regraded and reseeded. The underground gas and water pipelines would be disconnected, capped below grade, and abandoned in place. Environmental impacts would occur from dust generated from removing the power plant. No significant impacts would occur to local drainages. Based on this analysis, Western concludes decommissioning of the site would not have significant environmental impacts.

Determination – Based on the analysis Western concludes, with the BMPs and environmental protection measures proposed for the Project, the operation of the proposed Project would not require mitigation beyond that already proposed by RUS and Basin Electric to mitigate potentially adverse environmental impacts. A separate mitigation action plan is not required for the Project. The analyses indicate that the proposed action is not a major Federal action significantly affecting the quality of the human environment. Western has determined that preparation of an EIS is not required.

Issued:


Robert J. Harris 6-25-09
Robert J. Harris
Regional Manager
Upper Great Plains Customer Service Region