

PMC-ND

(1.08.09.13)

U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION



RECIPIENT: NREL

STATE: CO

PROJECT TITLE : NREL- NWTC Offsite 115kV Transmission Line - Planning, Preliminary Design, and Environmental Surveys; NREL Tracking No. 14-015

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-14-015	GO28308

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

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| A9 Information gathering, analysis, and dissemination | Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.) |
| B3.1 Site characterization and environmental monitoring | Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7. |

Rationale for determination:

The U.S. Department of Energy is proposing to conduct preliminary activities to support the siting, design and installation of an aboveground 115 kV interconnection transmission line from a substation located on the National Wind Technology Center (NWTC) to a local utility (i.e. Xcel Energy) offsite switchyard to be located south of the NWTC. The NWTC is located southeast of the intersection of Colorado Highway (CO) 93 and CO-128, in Jefferson County, Colorado. The NWTC is a federally-owned facility that consists of 305 acres and is primarily utilized for wind energy research, development, and testing.

This interconnection would accommodate the estimated increase in generation capacity at the NWTC to allow for future growth needed to support the DOE Office of Energy Efficiency and Renewable Energy's mission in the research and development of renewable energy technologies. Currently, the electrical generation capacity of 11.2 MW exceeds the 10 MW generation limit identified in the existing DOE-Xcel Energy Interconnection Agreement. As a result, turbine testing, which generates electricity as a byproduct, is being curtailed to conform to the agreement's restrictions. In addition, estimates indicate that within the next five to ten years, additional electrical generation capacity up to 19.9 MW would be required as additional wind turbines and testing equipment are installed at the NWTC. Initially, the NWTC onsite substation will have a capacity of 19.9 MW but will include accommodations for a future increased capacity up to 50 MW.

Upgrades to the NWTC's on-site electrical infrastructure including installation of an on-site substation to accommodate

a total of 50 MW of onsite electrical generation capacity were analyzed in the Final Site-Wide Environmental Assessment Department of Energy's National Wind Technology Center Golden, Colorado at the National Renewable Energy Laboratory (DOE/EA-1914) issued on May 14, 2014. A Finding of No Significant Impact was also issued on May 14, 2014. The options for routing the offsite interconnection transmission line were not identified in detail nor were they analyzed in DOE/EA-1914.

This NEPA determination applies to the following preliminary activities associated with the design, siting, and installation of the proposed aboveground 115 kV interconnection transmission line: information gathering including determining specifications of equipment needed; contract actions; site characterization; environmental studies and surveys; project planning; geotechnical surveys; interagency agreement execution for right of way acquisition; interconnection agreement execution for 19.9 MW electrical generation capacity; and up to final engineering design.

This preliminary work would be done to inform the final design and identification of the transmission corridor for the 115kV aboveground transmission line. The proposed activities would also help inform selection of the switchyard location by Xcel Energy. The work that would be done as part of the proposed activities falls into the following categories: 1) Information gathering, analysis and dissemination, 2) Site characterization and environmental surveys; and 3) Execution of agreements and awarding of contracts.

The proposed project activities are described below.

- Easement-related activities – Most activities related to easement acquisition would be performed in an office environment. However, there may be periodic site walks for discussion purposes only; consequently these activities would involve no environmental disturbance. Easement acquisition activities would be conducted by Western Area Power Administration through an Interagency Agreement with DOE and funded by the project budget.
- Environmental studies and surveys – Desktop surveys and field surveys would be conducted to identify sensitive environmental resource areas including wetlands; floodplains; riparian areas; threatened and endangered species (T&E) and associated habitat; and cultural resources. Surveys would be conducted by qualified biologists in NREL's Environment, Health, and Safety (EHS) Office or sub-contracted to a qualified environmental consulting firm. Field surveys would be conducted to validate data collected from desktop surveys. Non-invasive field surveys would be conducted during the appropriate seasons to identify T&E species (i.e. Preble's meadow jumping mouse; Colorado Butterfly plant, Ute ladies-tresses orchid) and/or suitable habitat that could occur in this part of Jefferson County. If any of these species or their habitat is found, they would be mapped to facilitate avoidance during the design process. If surveys indicate that wetlands delineation is required, shallow test holes (approximately 8 inches in diameter up to 18 inches deep) would be dug in the soil using a hand auger and subsequently re-filled, thus resulting in de minimis environmental disturbance. If floodplains or riparian areas are discovered these areas would be mapped and avoided to the extent practicable. Surveys for protected avian species (i.e., migratory birds and eagles) would be completed and if any raptor nests are identified these would be noted and incorporated in the engineering design process, so that such areas may be avoided. Information collected during the desktop and field surveys would be used to determine if consultation would be required under the Endangered Species Act, National Historic Preservation Act, and the Clean Water Act. If consultation is required, DOE will initiate consultation.
- A land surveyor would access the proposed transmission route to prepare an American Land Title Association (ALTA) survey. The data collected during the ALTA survey would be used to prepare a map that includes boundary lines, locations of specific features such as buildings, identification of existing easements, and other requirements as specified by DOE.
- Data collected during the geotechnical investigation would be used to inform the final design of proposed project facilities. The investigation would require the drilling of multiple test holes. Geotechnical activities would be conducted to determine soil and rock characteristics for the proposed Xcel switchyard and the transmission line poles. Equipment used includes a truck-mounted mobile drill rig (typically a tandem axle, 30-ft length, 7 ton, diesel truck). The borings would likely be 3 to 4 inches in diameter and no more than 30 feet in depth. Test holes would be subsequently backfilled.

The proposed activities would take place in unincorporated Jefferson County, Colorado, as shown on the attached maps. The project would be linear in nature, situated primarily on the east side of an existing spur of the Denver and Rio Grande Western Railroad, and extending from the southwest corner of the NWTC almost due south for a distance of approximately 1.5 miles.

This NEPA determination does not apply to final design or construction of the transmission line; or to procurement of equipment. Additional NEPA review will be required for these activities after the approved preliminary activities are completed. The preliminary activities will inform final design of the proposed project and the location of the transmission corridor.

Based upon the information above, DOE has determined that the proposed activities would not have a significant individual or cumulative impact to human health and/or the environment. DOE has determined the proposed activities are consistent with actions contained in DOE categorical exclusions A8- "Awards of certain contracts", A9 - "Information Gathering, Analysis, and Dissemination", and B3.1 - "Site characterization and environmental monitoring."

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

Completed by Lori Gray

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Electronically
Signed By: Lori Gray

NEPA Compliance Officer

Date: 5/20/2014

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- ☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- ☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____

