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

RECIPIENT: NREL - WfO - Tooele Army Depot **STATE:** UT

PROJECT TITLE : Enhanced Wind Resource Assessment with Sodar at Tooele Army Depot; NREL Tracking No. 14-003

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-14-003	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:

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's (DOE) National Renewable Energy Laboratory (NREL) proposes a project in support of United States Department of Army (U.S. Army) for an enhanced wind energy resource assessment at the Tooele Army Depot (TEAD) in Tooele County, Utah. Specifically, NREL would deploy a sonic ranging and detection (SODAR) unit to conduct wind resource measurements.

PROPOSED ACTION

The purpose of the proposed project would be to conduct an enhanced wind resource assessment at the 23,000-acre Tooele Army Depot (TEAD) in Tooele, Utah to determine the extent of the wind resource. A map of TEAD is included in the SOW uploaded to the PMC database. NREL would assist the U.S. Army Energy Initiative Task Force (ETIF) to enhance a preliminary wind resource assessment already underway at the site that is being done with an U.S. Environmental Protection Agency-owned meteorological (met) tower. The complexity of the terrain due to mountains in the middle of the larger valley/basin directly south of TEAD creates uncertainty regarding its impacts on the wind characteristics across the valley and TEAD. The proposed NREL project would complement the existing wind measurement campaign by utilizing a SODAR unit to ensure a robust data set for the complex terrain of TEAD. The proposed deployment sites are presented in the SOW, and characterized as flat areas covered by coarse, windblown sand and gravel, with very sparse vegetation.

For this proposed effort, NREL would send a SODAR unit leased from Vaisala, Inc. (Vaisala) to TEAD. The SODAR

NEPA DETERMINATION
Based on review of the project information and the above analysis, DOE has determined this proposed project would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with the actions contained in DOE categorical exclusions A9 "information gathering, analysis, and dissemination" and B3.1 "site characterization and environmental monitoring," and is categorically excluded from further NEPA review.

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 :

ND prepared by Rob Smith on 4/23/2014.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Lori Gray Lori Gray Date: 4/24/2014
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager

unit would initially be installed and commissioned next to the existing met tower for calibration purposes, then moved for one to three months at a time to selected sites east and west of the met tower, to determine sites having the most favorable wind characteristics for potential development. As part of the lease agreement, NREL staff would be trained by Vaisala in commissioning the SODAR so that NREL employees could de-commission and re-commission the SODAR unit at each location. The SODAR unit proposed for installation is a box unit about 3 feet by 4 feet by 4 feet in size. It would be mounted to a small flatbed trailer about 4 feet by 6 feet or 4 feet by 8 feet in size. The trailer would be equipped with levelizing legs, a tilt-out PV system, and a back-up propane generator. No trenching for electrical utilities would be required and no other excavation or soil disturbance would be necessary at any of the proposed sites of deployment. Delivery and removal would use existing roads except for the final approximately 200 yards to each proposed monitoring site, over coarse windblown sand/gravel, and sparse vegetation. Installation at each measurement site would simply involve putting the legs down to level and secure the unit and commissioning would entail getting the power system (PV and battery) working, the sensors working and the telecommunication system operable. NREL would work collaboratively with TEAD for site access to install and commission the SODAR unit, and for periodic re-location with re-commissioning.

NREL would then analyze the data and provide a feasibility study to the U.S. Army evaluating the wind potential at those locations. The initial deployment to TEAD would is anticipated to take place in 2014, upon subcontract approval, followed by one year of data collection. The SODAR unit would be decommissioned and removed from TEAD at the end of the project for use at other locations.

OTHER FEDERAL AGENCIES NEPA REVIEWS
The proposed project would occur at an U.S. Army military installation and would receive funds from the U.S. Army. The U.S. Army completed a Record of Environmental Consideration (REC) documenting their NEPA determination for this proposed action in accordance with the U.S. Army's NEPA implementing regulations at 32 CFR 651. The U.S. Army determined that there are no exceptional circumstances associated with the proposed project and that it fit into the class of actions for their categorical exclusions (b)(4), (h)(5), and (f)(1). A copy of the REC has been uploaded to the PMC.

IMPACTS OF PROPOSED ACTION
The proposed project would occur at an existing U.S. Army installation in areas that have been largely previously disturbed and cleared. Furthermore, the proposed project would not entail any ground disturbing activities and no impacts to stormwater are anticipated. The proposed project would not occur in the vicinity of wetlands, floodplains, prime farmland, or coastal management zones.

Impacts to air quality from the proposed project would be negligible and TEAD is located in an attainment area for National Ambient Air Quality Standards. The proposed project is short-term and temporary, and would involve the short-term and/or intermittent use of mobile sources of air emissions, such as a truck to transport the SODAR trailer to the proposed monitoring sites. The only stationary point sources for this proposed action would be a propane-powered cordless engine heater used to prevent the SODAR unit from accumulating ice and a propane-fired back-up generator for emergency power. The U.S. Environmental Protection Agency has determined that such propane heaters and back up generators are exempt from New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants. A copy of this determination has been uploaded to the PMC.

There is no known adverse interaction between SODAR and wildlife. Research of the available literature has found that the acoustic frequencies used by bats for echolocation range from 14,000 to 200,000 Hz and are well above the operating frequency ranges of the SODAR. There is one federally listed threatened plant Ute ladies'-tresses (Spiranthes diluvialis), and two candidate species of birds [Greater sage-grouse (Centrocercus urophasianus) and the Yellow-Billed Cuckoo (Coccyzus americanus)] and one candidate species of fish [Least chub (Iotichthys phlegethontis)] known to occur in Tooele County. According to the U.S. Fish & Wildlife Service, there is no designated critical habitat in the proposed project area. DOE has determined that is proposed project would not affect the Ute ladies'-tresses or the three candidate species given the type of proposed activity and lack of suitable habitat. The U.S. Army's REC further states that the proposed action would not have an unresolved effect on environmentally sensitive resources. The proposed project would occur on TEAD property and abide by all applicable U.S. Army natural resource management policies, programs, and plans.

According to the U.S. Army's REC, the proposed project would not impact any known cultural resources or historic properties. The proposed project would abide by all applicable U.S. Army cultural resource management policies, programs, and plans including the TEAD Cultural Resource Management Plan, which is uploaded to the PMC database.

The proposed project would not utilize any hazardous materials other than propane for the SODAR heater unit and back up generator. Additionally, no generation of solid waste, hazardous waste, or wastewater is anticipated. NREL would work collaboratively with TEAD to develop a site-specific safety plan. Additionally, all personnel would have to comply with NREL Lab Level Procedure 6-1.47 Compressed Gas Safety when storing, handling, transporting, and installing propane tanks associated with the SODAR unit.