

PMC-EF2a

(2.0 (02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION



RECIPIENT:NREL

STATE: CO

PROJECT TITLE : Southwest Wind Power R&D Test Site Development at the NWTC; NREL Tracking No. 12-010

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
		NREL-12-010	0

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:

DOE/EA 1378 (NREL NWTC)

Final Site-Wide Environmental Assessment of the National Renewable Energy Laboratory's National Wind Technology Center

Rational for determination:

This proposed project would consist of the execution of a Cooperative Research and Development Agreement (CRADA) with Southwest Windpower, Inc. (SWWP) for the installation of four wind turbine towers and associated infrastructure at the National Renewable Energy Laboratory's (NREL's) National Wind Technology Center (NWTC), 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 used for wind energy research, development, and testing.

SWWP has been designing and distributing small wind turbines for more than twenty-two years and is the recognized global leader in the design, manufacturing and distribution of small wind systems (400-3000 watts). A partnership with NREL would provide insight into SWWP's Research, Development, Demonstration and Deployment (RDD&D) processes and more efficient commercialization by using the NWTC as the field testing site. The partnership would provide an opportunity for SWPP to work with NREL personnel who are very experienced with customized and International Electrotechnical Commission (IEC) testing. The purpose of this CRADA (see attached CRADA SOW) is to provide the installation of four wind turbines for a range of RDD&D and testing/certification activities. IEC and RDD&D testing would be from approximately January 2012 to December 2013. The CRADA agreement would be in effect for two years, at which time the partnership would be renewed or dissolved. If dissolved, all SWWP towers and equipment would be removed.

The small wind turbines would be installed along Row 2 within Sites 1E.2 and 1E.3. SWWP would install two 65-foot wind turbine towers at site 1E.2 and two 45-foot wind turbine towers at Site 1E.3 (see attached map named "NREL_NWTC_SW_Wind_Power_Vertical Structures"). The towers would rest on a steel plate anchored with rebar at all four corners of the plate. Four anchor points would be installed using Foresight® earth anchors (see attached Foresight® Anchors brochure). If the earth anchors cannot be installed due to site conditions, four pier-type foundations (36 inches by 36 inches) would be installed for guy wire anchor points. The pier installation would disturb a total of 36 square feet (less than 0.001 acre) for the four foundations. The 45-foot towers would have four guy wires and the 65-foot towers would have eight guy wires, all ending at four anchor points.

Following tower installation, existing conduit would be used to run electrical and data lines from the turbine towers to an existing data shed at Site 1E.2. One trench would need to be installed from the northernmost turbine at Site 1E.2 to the southernmost turbine tower at Site 1E.2. The trench would be approximately 100 feet long by 1 foot wide by 2 feet deep. NREL estimates that soil spoils that could not be returned to the trench would create an additional disturbance of approximately one foot on either side of the trench or 300 square feet (less than 0.01 acre).

Two existing meteorological towers are located at the Site 1E area. The meteorological tower at Site 1E.2 would be

used for this project (see attached map). This meteorological tower is also guyed and would be extended to a height of 65 feet for use with this project. Existing conduit would be used for data and electrical lines, at this location as well. Access to the site would be on existing roads. Large trucks and heavy equipment would have to temporarily access the tower locations for installation. These areas would be accessed this winter and disturbance would be kept to a minimum. Disturbed areas (i.e., grubbed or excavated) would be reseeded in spring or early summer.

Any excavated soils (which are not able to be re-used) will be spread on-site as presented above, and the area would be vegetated in accordance with NREL Procedure 6-2.16: Stormwater Pollution Prevention for Construction Activities: NWTC. A U.S. EPA General Construction Permit for stormwater is not required for this project since total disturbance is less than 1.0 acre. Construction contractors would conduct concrete washout activities in accordance with NREL Procedure 6-2.16. Per agency consultations conducted during the Site-Wide Environmental Assessment for the NWTC (DOE/EA-1378), no cultural resources, threatened or endangered species, wetlands, floodplains, or prime farmlands would be impacted by this proposed project. An FAA permit application is not required for this project, due to the height of the towers. If any construction or construction-related activities (i.e., surveying, off-road vehicle traffic, trenching, etc.) occurs between March 15 and September 1, a survey for ground-nesting birds would be completed by NREL's ESH&Q Office before these activities are initiated per NREL policy. NREL recommends the installation of bird diverters on the guy wires on the meteorological towers and turbine towers. NREL and all contractors would follow all federal, state, local safety and security regulations.

The proposed action (the addition of small wind turbines at Site 1E) was analyzed as part of the proposed action in the May 2002 Final Site-Wide Environmental Assessment of NREL's NWTC (DOE/EA-1378). A Finding of No Significant Impact determination for DOE/EA-1378 was issued in May 2002. As this proposed project was analyzed as part of the proposed action in DOE/EA-1378 and with no extraordinary circumstances identified, the May 2002 FONSI determination applies to this proposed action.

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 on 1/23/12 by Amy Van Dercook.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Lori Gray
NEPA Compliance Officer

Date: 1/23/2012

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: _____