

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



RECIPIENT: NREL

STATE: CO

PROJECT TITLE : NREL-23-015 Turbine Removal at Site 4.5 - FC

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	GFO-NREL-23-015	GO28308

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

CX, EA, EIS APPENDIX AND NUMBER:

Description:

DOE/EA 1914 (NREL NWTC) Final Site-Wide Environmental Assessment of the Department of Energy's National Wind Technology Center at the National Renewable Energy Laboratory

Rationale for determination:

The U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) proposes to decommission the SGRE 2-MW wind turbine located at Site 4.5 at the NREL Flatirons Campus (FC) in Arvada, Colorado. The purpose of the proposed project is to disassemble the wind turbine and its components, including the foundation, supporting infrastructure, and a data shed. Subcontractors would be used to complete the work.

DISASSEMBLY OF THE TURBINE

A support crane would be used to assemble a crawler crane at site 4.5, which would be used to disassemble the turbine. Fluids would be reclaimed from the gearbox and other parts within the nacelle and recycled. The tower would be cut up using hydraulic shears on an excavator and loaded on a flatbed truck for disposal offsite. The nacelle would be shipped offsite for reuse or to be recycled. The blades may be cut up on site for disposal, or they may be stored onsite before shipping to another wind facility for reuse.

EXCAVATION OF THE CONCRETE FOUNDATION AND SUPPORTING INFRASTRUCTURE

The concrete foundation would be excavated using an excavator mounted jackhammer, and the concrete separated from the rebar. Approximately 15,000 cubic feet of concrete would be disposed of, and the rebar would be recycled. The foundation spoils pile would be used to fill the foundation hole.

The crane pad and turnaround, totaling approximately 15,000 square feet, would be dug up and removed.

The 13.2 kV electrical feeder, which runs from the site 4.4 vista switch to the turbine at site 4.5, would be excavated and removed.

REMOVAL OF THE DATA SHED

The data shed at site 4.5 is mounted on a skid, which is bolted to four caissons. The shed would be unbolted from the caissons, lifted onto a flatbed truck, and stored onsite for future use. The caissons and road base around the data shed would be excavated and disposed of. The underground data line that served the shed would remain in place for future use.

ANALYSIS

The proposed project would be completed in Fall 2023. The total area of disturbance from project activities (which includes area disturbed by the removal of a turbine at site 4.4, please see NREL-23-016) would be approximately 40,000 square feet. Ground disturbance would occur in areas that have been previously disturbed, and erosion control measures would be used and maintained during and after the project period as needed. Vegetation would be restored at the conclusion of the work. All ground disturbing activities would be conducted in accordance with existing NREL policies and procedures that guide such work. The estimated area of disturbance is less than an acre; however, if the area of disturbance is increased to be greater than an acre, an EPA Construction General Permit would be obtained.

Air emissions resulting from vehicles and equipment operation would be de minimis. Fugitive dust from excavation activities would be generated but would be limited by using water. Breaking down the concrete foundation could result in elevated noise levels, but the elevation would be temporary.

An area of wetlands is located to the west of the turbine. This area would not be disturbed during the project as the area is located behind a fence and down a steep hillside. Project activities would not affect cultural resources, threatened or endangered species, floodplains, or prime farmlands. A migratory bird nesting survey shall be completed if project activities involving ground disturbance occur between March 15 and September 15. If nests or eggs are found, the area would be cordoned off with a proper buffer until nestlings fledge.

Individuals working on this project could be exposed to physical and electrical hazards. The concrete would be wetted to reduce airborne dust production and to reduce silica exposure to workers. Existing corporate health and safety policies and procedures would be followed including employee training, proper protective equipment, engineering controls, and monitoring, as well as obtaining a Safe Work Permit. Additional policies and procedures would be implemented as necessary if new health and safety risks are identified.

Based on the review of the project, DOE has determined that the proposed project fits within the scope of activities that were analyzed in Section 3.4.3.2 "Increasing Site Use and Density" of the 2014 Final Site-Wide Environmental Assessment of the NREL NWTC (DOE/EA-1914). DOE has determined that the proposed project is bound by the environmental impact analysis contained in this EA and its respective FONSI, and no further NEPA review is required.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

A migratory bird nesting survey shall be completed if project activities involving ground disturbance occur between March 15 and September 15. If nests or eggs are found, the area would be cordoned off with a proper buffer until nestlings fledge.

Notes:

NREL
Completed by Nicole Serio, 8/30/2023

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Electronically Signed By: Matthew Blevins Date: 8/31/2023
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
 Field Office Manager review required

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

Field Office Manager's Signature: _____ Date: _____
Field Office Manager