

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-21-009 QED Wind Power Turbine - Flatirons Campus](#)

| | | | |
|--|--------------------------------------|-----------------------------|-------------------------|
| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
| | DE-AC36-08GO28308 | NREL-21-009 | 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 \(NREL NWTTC\)](#) 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 procure, install, and operate a wind turbine from QED Wind Power at NREL's Flatirons Campus (FC) located in Boulder, Colorado.

The wind turbine, a 20 kW PHX20, would be installed at Site 1.4 on the FC. A reinforced concrete pad foundation would be installed to the east of an existing concrete foundation at that location. The foundation would be approximately 17 feet (5.2 m) wide, 17 feet (5.2 m) long, and 5 feet (1.5 m) deep. Electrical conduit would be installed below ground by either trenching or direct buried. The conduit would extend from either the existing data shed or the existing foundation pad to the new foundation; depending on which location is chosen, up to 85 feet (26 m) of conduit would be installed. A new gravel access area, extending from the existing concrete pad to the new foundation, would also be installed. The existing concrete foundation would be used to mount transformers or other switch gear.

After the concrete foundation is complete, the turbine would be installed using a portable hydraulic power unit attached to the foundation and tilt-up tower assembly; no guy wires would be required. The turbine would have a diameter of 12.3 m (40 feet) and would be approximately 30.5 m (100 feet) tall. The laydown area would be to the west, over the current gravel pad, to ease assembly and reduce potential impacts.

The turbine would remain at the FC for an undetermined amount of time. While in service, the turbine would operate over a variety of wind speeds and data would be collected to evaluate turbine performance. The turbine would be maintained appropriately while in service at the FC.

Installation of the foundation and turbine would occur over the Summer and Fall of 2021. 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. If a trench is used, it would be backfilled using the same soil that was removed to excavate the trench. All ground disturbing activities would be conducted in accordance with existing NREL policies and procedures that guide such work.

Air emissions resulting from project activities would be de minimis. Installation activities and operation of the turbine would result in elevated noise levels, but not to an extent that would adversely affect wildlife that are in the area. All waste materials would be recycled where possible or disposed offsite, and disturbed areas would be restored as needed.

Project activities would not affect cultural resources, threatened or endangered species, wetlands, floodplains, or prime farmlands, and no permits would be required. 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. 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 Phase 2 fits within the scope of activities that were analyzed in Section 3.4.3.2 "Increasing and Enhancing Research and Support Capabilities (Zone 1 and Zone 2)" of the 2014 Final Site-Wide Environmental Assessment of the NREL NWTC (DOE/EA-1914). DOE has determined that the 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
Nicole Serio, 5/14/2021

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Electronically Signed By: Lisa Jorgensen Date: 5/14/2021
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