

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Western Ecosystems Technology, Inc. (WEST)**STATE:** MN

PROJECT TITLE: A Multi-Sensor Approach for Measuring Bird and Bat Collisions with Offshore Wind Turbines

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001924	DE-EE0008734	GFO-0008734-002	

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:

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.)

B3.3 Research related to conservation of fish, wildlife, and cultural resources Field and laboratory research, inventory, and information collection activities that are directly related to the conservation of fish and wildlife resources or to the protection of cultural resources, provided that such activities would not have the potential to cause significant impacts on fish and wildlife habitat or populations or to cultural resources.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Western EcoSystems Technology, Inc. (WEST) to design, develop, and test a multi-sensor system for quantifying bird and bat collision rates at offshore wind facilities. The project would further develop an existing detection system, with the goal of improving detection accuracy, image processing, and detection quantification. The system would be installed on existing turbines at land-based and offshore wind energy projects.

The project would be completed over two Budget Periods (BPs), with a Go/No-Go Decision Point in between each BP. A previous NEPA Determination was completed for Tasks 1 and 2 and Subtask 3.1. Subtask 3.2 and Tasks 4 and 5 were not reviewed, as field testing plans had not been fully defined and field testing site locations had not yet been selected. Subtask 3.1 consisted of the development of a test plan for barge and onshore bird and bat detection. This task has now been completed. The test plan provides sufficient information for NEPA review of the implementation of the testing plan, which would occur as part of Subtask 3.2. Site locations for future testing are still pending. Accordingly, this NEPA Determination is applicable to Subtask 3.2 only. Subtasks 4 and 5 remain conditional until site locations have been selected for testing.

Proposed project activities for Subtask 3.2 would consist of the temporary deployment of cameras and acoustic detectors near existing artificial structures and the subsequent monitoring of bird and bat activity using the installed equipment. Deployment would occur at three of four possible locations. The locations where deployment is being considered are Jenette's Pier (fishing pier) in Nags Head, NC, a lighthouse at the College of the Atlantic in Bar Harbor, ME, a wind turbine at the Blazing Star Wind Farm in Hendricks, MN, and a wind turbine at National Wind Technology Center (NWTCC), operated by the National Renewable Energy Laboratory (NREL) in Arvada, CO. At Jenette's Pier, deployment of the devices would occur at shoreline areas near the pier. At the other three locations, deployment would occur at the base of the lighthouse/wind turbines.

At each location, deployment would consist of the temporary installation of commercial off-the-shelf (COTS) hardware, including an array of three (3) cameras, a thermal camera, and an ultrasonic acoustic recording unit. Each camera would be placed on a mounting platform approximately 2 m from the turbine/lighthouse base (on shoreline areas near the pier in the case of Jenette's Pier) in a triangular pattern. The cameras (including the thermal camera) would be pointed upward to take images of passing birds passing in the vicinity of the structure of interest. The cameras would be connected via Ethernet cable to an existing network-attached storage (NAS) server at each site. The ultrasonic

acoustic recording units would also be deployed near the camera systems. The units to be used would be slightly larger than a cell phone.

Once deployed, the equipment would be used to passively (i.e., no active interventions with wildlife) collect data on bird and bat passage near the structures of interest. Data would be collected over a period of approximately 4 weeks. Audio recordings of bat passage would be taken using the recording units during the testing period from approximately 6pm until 8am each night. Data would also be collected on routine carcass searches performed at each site. This info would be shared by the host site. No additional carcass searches, beyond those routinely performed by the host sites would be undertaken. Data collected as part of Subtask 3.2 would be used for algorithm development to optimize the sensor system.

All site locations where equipment would be deployed are locations that have been previously disturbed and are actively used for research purposes. No modifications to existing facilities, ground disturbing activities, or changes to the use, mission, or operation of existing facilities would be required to perform project activities. Likewise, no additional permits would be required.

WEST would adhere to established health and safety guidelines when completing deployment activities. All personnel participating in these activities would receive appropriate training and would be required to follow all relevant health and safety protocols. WEST would adhere to all applicable Federal, state, and local health, safety, and environmental regulations.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Subtask 3.2 - Implementation of Onshore Bird and Detection Test Plan

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Task 4 - Validation of the next generation WT-Bird® system on a land-based turbine

Task 5 - Implementation of the next generation WT-Bird® system on offshore turbines

Notes:

Wind Energy Technologies Office

This NEPA determination requires a tailored NEPA Provision.

NEPA review completed by Jonathan Hartman, 06/07/2021

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but

cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically Signed By: **Roak Parker**

NEPA Compliance Officer

Date: 6/7/2021

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: _____

Field Office Manager

Date: _____