

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Oregon State University**STATE:** OR**PROJECT
TITLE:**

Advanced Collision Detection and Site Monitoring for Avian and Bat Species for Offshore Wind Energy

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001924	DE-EE0008733	GFO-0008733-002	GO8733

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.)

B3.6 Small-scale research and development, laboratory operations, and pilot projects Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Oregon State University (OSU) to design, build, and test a novel collision detection system for off-shore wind turbines that would seek to reduce avian and bat collisions. The system would be capable of providing visual confirmation of collisions in both daytime and nighttime conditions via on-blade visible light and infrared cameras, as well as relaying data from remote locations. Both laboratory and field testing would be conducted to validate system performance.

DOE completed one previous NEPA determination covering Task 1, 2 (excluding Subtask 2.5), 3, and 5. (GFO-0008733.001; CX A9, B3.6; 07/12/2019). This NEPA review is for Subtask 2.5 (System field tests, static and dynamic) only. Task 4 (Wind Turbine Testing) involves field testing of the prototype collision detection system using working wind turbines. Test plans still need to be developed for this task. Because Task 4 is not fully defined, there is not enough information available to meaningfully complete NEPA review on that task. Accordingly, Task 4 is restricted until further NEPA review is completed. Additional NEPA review will be completed once all relevant information has been provided by the Recipient.

Subtask 2.5 would include conducting field tests on an existing wind turbine blade while the blade remains on the ground. OSU staff would travel by car to Avangrid, Pebble Springs Wind Farm, in Arlington, OR. This is a working wind farm which also has several spare blades lying on the ground. OSU staff would attach vibration sensors to the blade. Total dimensions of all sensors would be approximately 1 foot square. OSU would also operate a video camera to get video footage of the blade during testing. OSU staff would then perform calibration by hitting the blade with a rubber mallet and recording sensor data. OSU would then proceed to throw or drop small objects, such as tennis balls and hacky sacks, on the blade, recording sensor data, as well as obtaining video of the tests. OSU could also hit the blade with a hammer. OSU would then analyze the data.

Established university health and safety policies and procedures would be adhered to throughout the project.

NEPA PROVISION

DOE has made a conditional NEPA determination.

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

[Task 1: Blade Impact Detection and Intellectual Property \(IP\) Management](#)

[Task 2: Nacelle Unit](#)

[Task 3: Field Testing Planning](#)

[Task 5: Publications and reporting](#)

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

[Task 4: Wind Turbine Testing](#)

Notes:

[This NEPA determination requires a tailored NEPA provision.](#)

[Wind Energy Technology Office](#)

[Roak Parker 10/28/2020](#)

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: 10/28/2020

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: _____