

PMC-ND

(1.08.09.13)

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



RECIPIENT: Natural Power

STATE: Mult

PROJECT TITLE: Bat Smart Curtailment: Efficacy and Operational Testing

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0001924	DE-EE0008900	GFO-0008900-001	

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.

**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 federal funding to Natural Power (NP) to test the efficacy of the Bat Smart Curtailment system (BSC) and address operational concerns that pose barriers to adoption of the system.

The BSC is comprised of an acoustic monitor approximately 20 by 20 by 5 inches and cell antennas approximately 18 inches high and 4 inches in diameter, if necessary, that would be installed on the nacelle of a commercial scale wind turbine. Cable would be run on the outside of the nacelle. A small server and monitoring equipment package (each smaller than 2 feet by 2 feet by 1 foot) would be installed in a preexisting operations building and would collect data and monitor the equipment.

The proposed project would include three tasks.

Task 1 would be limited to a review of the existing BSC to determine field readiness. This task would be completed by the National Renewable Energy Lab (NREL) in Colorado and would be limited to data analysis. No field work or laboratory testing would be involved with this task.

Task 2 would include deployment and testing of the BSC on a commercial scale wind turbine at NREL. The system would be deployed upon the nacelle of an existing and operating wind turbine. Deployment would include installing the system on the nacelle and running cables from the system to interphase with the Supervisory Control and Data Acquisition (SCADA) system. The BSC would then be operated for approximately one month. Data would be collected and analyzed during that time period. All work at NREL would be required to comply with existing health and safety procedures of that facility. No Endangered Species Act listed species would be effected by the proposed task.

Analysis would be conducted both at NREL and office and home office facilities in a variety of locations within the United States and Scotland.

Task 3 would include developing plans for deployment of the BSC at a field site, testing at the site, data collection and analysis, and dissemination of information. This task would be comprised of 10 subtasks. Subtasks 3.1 (IP management plan), 3.2 (Coordination and Planning for field study), and 3.3 (Research Plan) would be limited to data gathering, modeling, and development of plans. These activities would not involve any field work.

Subtasks 3.4 -3.10 would involve deployment of the BSC at a field location, testing, data collection and analysis, and dissemination of information gathered from those tests. A field site has not yet been determined for these tests. As such these subtasks cannot be meaningfully evaluated at this time and are restricted pending additional NEPA review. NP is required to provide additional information regarding field testing, including a Biological Assessment if necessary. Additional NEPA review will be completed once all additional information necessary to complete the review is provided.

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 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:

Task 1 - NERC CIP Review  
Task 2 - Natural Power BSC Integration with commercial utility-scale turbine at NWTC  
Subtask 3.1 - IP Management Plan  
Subtask 3.2 - Coordination and Planning for field study  
Subtask 3.3 - Research Plan

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

Subtask 3.4 - Install BSC system at the test site  
Subtask 3.5 - Review and acceptance of the system, integration with the SCADA, CIP readiness confirmation by the O/O  
Subtask 3.6 - Install system and implement Smart Curtailment at the site  
Subtask 3.7 - Conduct Fatality study at the site  
Subtask 3.8 - Analyze data from field study  
Subtask 3.9 - Report on Field Test  
Subtask 3.10 - Submit manuscript to peer-reviewed journal

Notes:

Wind Power Technology Office  
This NEPA determination requires a tailored NEPA provision  
NEPA review completed by Roak Parker 11/1/19

## 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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

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: 11/1/2019

**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: