

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Electric Power Research Organization**STATE:** CA

PROJECT TITLE: Evaluation of the Turbine Integrated Mortality Reduction (TIMR) Technology as a Smart Curtailment Approach

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001924	DE-EE0008727	GFO-0008727-001	GO8727

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.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Electric Power Research Organization (EPRI) to design, develop, and test a novel wind energy curtailment system (e.g. the Turbine Integrated Mortality Reduction (TIMR) system) designed to reduce bat mortality rates and reduce economic losses associated with traditional curtailment techniques. The system would be composed of custom hardware/software that would process, in real-time: 1) acoustic data, which would be auto-classified into bat and non-bat calls; and 2) wind speed data, which would communicate real-time risk conditions to a wind operator's supervisory control and data acquisition (SCADA) system. Utilizing this data, the TIMR system and SCADA system would automatically curtail/reinitiate energy production based on risk conditions for bat mortality. The system, composed of both sound detection hardware (e.g. microphone systems on wind turbine nacelles) and software to be integrated into a SCADA system, would be installed/integrated at an existing wind utility site.

This NEPA Determination will review Tasks 1, 2 and 7, which would consist of project planning/coordination activities. Tasks 3 – 6 include activities that are dependent on the finalization and acceptance of the project study plan, which would be developed as part of Tasks 1, 2 and 7. Accordingly, Tasks 3 – 6 are restricted until further NEPA review is completed. Additional NEPA review will be completed once the project study plan is approved and all relevant information associated with future installation activities has been provided by the Recipient.

Proposed project activities for Tasks 1, 2 and 7 include the following:

Task 1: Project Initiation – This task would consist of the development of a Study Plan, including installation/field protocols, an intellectual property management plan, a biological analysis, and an economic analysis. DOE would review the plan upon finalization of the draft.

Task 2: Coordination and Integration Planning of the TIMR system – This task would consist of coordination planning with the host wind energy site operator, and original equipment manufacturers/vendors, to plan for integration of the TIMR system into the host site's existing SCADA system. This task would not include any purchasing/installation of equipment

Task 7: Project Management and Reporting – This task would consist of project management and reporting activities, which would be ongoing throughout the life of the project.

EPRI would oversee and coordinate all project activities with its project partners. EPRI, the U.S. Geological Survey (USGS) and the National Renewable Energy Laboratory (NREL), would all perform data analysis throughout the life of the project. The American Wind Wildlife Institute (AWWI) and Bat Conservation International (BCI) would also

provide technical support and assist EPRI with project coordination.

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: Project Initiation

Task 2: Coordination and Integration Planning of the TIMR system

Task 7: Project Management and Reporting

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

Task 3.0: Full Installation of TIMR system and Testing of ReBAT® and TIMR systems

Task 4.0: Experimental Study of the TIMR system

Task 5.0: Analysis and Draft Final Report of the Experimental Study

Task 6.0: Final Report and Dissemination

Include the following condition in the financial assistance agreement:

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.

Notes:

Wind Energy Technologies Office

This NEPA determination requires a tailored NEPA Provision. Please include the standard DOE laboratory language in the award.

NEPA review completed by Jonathan Hartman, 07/08/2019

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: **Kristin Kerwin**

NEPA Compliance Officer

Date: 7/9/2019

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: _____