

PMC-EF2a

(2.04.02)

**U.S. DEPARTMENT OF ENERGY  
EERE PROJECT MANAGEMENT CENTER  
NEPA DETERMINATION**



RECIPIENT: Regents of the University of Minnesota

STATE: MN

**PROJECT TITLE :** High-Resolution Computational Algorithms for Simulating Offshore Wind Farms

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000415	DE-EE0005482	GFO-0005482-001	0

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), 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 development.

**Rational for determination:**

The University of Minnesota is proposing to use DOE and cost share funding to develop and validate computational tools capable of simulating atmospheric turbulence and wave effects in offshore wind farms.

Tasks 1, 2 and 4 involve data gather and analyses, computer modeling and project management activities. Task 3 involves conducting laboratory experiments carried out to validate the platform dynamics and turbine-wave interaction models. Laboratory work would take place at the Saint Anthony Fall's Laboratory wave generator and wind tunnel simulation tools that simulate conditions to validate and test the developed models for potential offshore wind conditions.

The University has submitted an R&D questionnaire. It fully addresses the potential for impacts related to human health and safety, waste disposal, and liquid effluent. Safety protocols will be monitored by project principal Investigator Internally and by St. Anthony Falls Research safety Officer externally. Safety standards are taken from University of Minnesota Health and Safety Plan in accordance with OSHA and MERTKA (Minnesota Right To Know Act) standards.

DOE has determined that impacts to the natural and human environments are expected to be negligible and that this project is consistent with actions covered under DOE CX A9 (information gathering, data analysis, document preparation and dissemination, and computer modeling) and CX B3.6 (indoor bench-scale research projects and conventional laboratory operations) and therefore is categorically excluded from further NEPA review.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

NEPA Review completed by Laura Margason on November 15, 2011.

Budget and Cost Share:  
Total Project: 1,369,226  
Total DOE: 1,200,000  
Cost Share: 169,226

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: Kimberly Lee Date: 11/17/2011  
NEPA Compliance Officer

**FIELD OFFICE MANAGER DETERMINATION**

Field Office Manager review required

**NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:**

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Field Office Manager