

PMC-EF2a

(20402)

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



RECIPIENT: University of Toledo

STATE: OH

PROJECT TITLE : Advanced Offshore Wind Turbine/Foundation Concept for the Great Lakes

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000090	DE-EE0003540	GFO-10-502	EE0

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 (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.
- B5.1** Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

DOE is proposing to provide federal funding to the University of Toledo for a series of tasks to assess the feasibility of an integrated wind turbine generator (WTG) and foundation system to deliver cost effective offshore wind turbine technology in conditions representative of the Great Lakes. The project will also develop a wind energy curriculum for college students. The project will involve studies of a new foundation, design modification of Nordic N1000 wind turbine for offshore application, the turbine-foundation integration studies, as well as an analysis of a downwind version of the Nordic N1000 wind turbine. Funds will be used to support the PI, two research associates, one post-doc associate (50%) and three doctoral students who will manage and/or perform the following tasks.

- 1.0 Two-Bladed Teeter Hub Offshore Wind Turbine Design Studies
- 2.0 Tower and Foundation Design Studies
- 3.0 Reliability Studies of WTG System
- 4.0 Educational Program Development
- 5.0 Project Management and Reporting

Tasks 1-3, part of 4, and 5 will consist of research, design, curriculum development, and management activities in an office or university facility environment. The remaining part of Task 4 will include practical training activities associated with an existing, operational 80kW wind turbine located on the University of Toledo campus.

All activities associated with the identified project will not result in any additional environmental impacts due to the administrative nature of the research efforts and the prior existence of an operating wind turbine for the practical training exercises.

Project activities comprise administrative tasks, computer modeling, information gathering and small-scale renewable energy research and development on a previously erected wind turbine; therefore a CX A9 and B5.1 apply.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Kristin Kere
NEPA Compliance Officer

Date: _____

7/28/2010

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: _____

Field Office Manager

Date: _____