

PMC-EF2a

(2.0 (02))

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



RECIPIENT: Indiana University

STATE: IN

PROJECT TITLE : An integrated approach to offshore wind energy assessment:

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
An integrated approach to offshore wind energy assessment	DE-EE0005379	GFO-0005379-001	

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.)
- B3.1 Site characterization and environmental monitoring** Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.
- B3.2 Aviation activities** Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations.
- B3.16 Research activities in aquatic environments** Small-scale, temporary surveying, site characterization, and research activities in aquatic environments, limited to: (a) Acquisition of rights-of-way, easements, and temporary use permits; (b) Installation, operation, and removal of passive scientific measurement devices, including, but not limited to, antennae, tide gauges, flow testing equipment for existing wells, weighted hydrophones, salinity measurement devices, and water quality measurement devices; (c) Natural resource inventories, data and sample collection, environmental monitoring, and basic and applied research, excluding (1) large-scale vibratory coring techniques and (2) seismic activities other than passive techniques; and (d) Surveying and mapping. These activities would be conducted in accordance with, where applicable, an approved spill prevention, control, and response plan and would incorporate appropriate control technologies and best management practices. None of the activities listed above would occur within the boundary of an established marine sanctuary or wildlife refuge, a governmentally proposed marine sanctuary or wildlife refuge, or a governmentally recognized area of high biological sensitivity, unless authorized by the agency responsible for such refuge, sanctuary, or area (or after consultation with the responsible agency, if no authorization is required). If the proposed activities would occur outside such refuge, sanctuary, or area and if the activities would have the potential to cause impacts within such refuge, sanctuary, or area, then the responsible agency shall be consulted in order to determine whether authorization is required and whether such activities would have the potential to cause significant impacts on such refuge, sanctuary, or

area. Areas of high biological sensitivity include, but are not limited to, areas of known ecological importance, whale and marine mammal mating and calving/pupping areas, and fish and invertebrate spawning and nursery areas recognized as being limited or unique and vulnerable to perturbation; these areas can occur in bays, estuaries, near shore, and far offshore, and may vary seasonally. No permanent facilities or devices would be constructed or installed. Covered actions do not include drilling of resource exploration or extraction wells.

Rational for determination:

DOE is proposing to provide federal funding to Indiana University (IU) to develop, research, model, and collect data of environmental factors that influence wind turbine structures in Lake Erie. This study would include metrological instrument installation, research, data gathering, reporting, and modeling.

IU is proposing to design, plan, and install a data collection system at the Meadow Lake Wind Farm in Indiana and existing buoys in Lake Erie. Instrumentation (3D Scanning Doppler lidar, Vertical Doppler Lidars & Tethersonde, Meteorological mast) would be installed at the Meadow Lake Wind Farm on an existing wind turbine and on existing buoys in Lake Erie. An unmanned aerial vehicle would collect the data via lidar and follow all Federal Aviation Administration (FAA) safety, and operating procedures. The data collected would be modeled and reported at conferences.

As the instrumentation would be installed on existing equipment, no habitat for any Threatened or Endangered (T&E) species would be impacted, no disturbance would occur to T&E species, and no cultural resources or historic properties would be affected.

This project comprises information gathering, site characterization, aviation activities, and research activities in aquatic environments; therefore Categorical Exclusions A9, B3.1, B3.2, and B3.16 apply.

Budget: \$ 700,000 (DOE); \$ 309,965 (cost share)

Condition of Approval: Indiana University will cooperate with NOAA and USCG when attaching instrumentation onto buoys and the University will acquire any necessary permission from private owners prior to engaging in activities. Where applicable, meet other Federal Agency rules and regulations, such as the Federal Aviation Administration, National Park Service and U.S. Coast Guard.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:

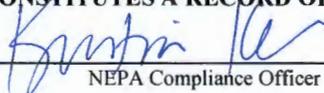
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Note to Specialist :

EF2A by Christopher Carusona II

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____


NEPA Compliance Officer

Date: _____

2/29/2012

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required