

PMC-EF2a

(2.04.02)

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

**RECIPIENT:**LEEDCo (Lake Erie Energy Development Corporation)**STATE:** OH**PROJECT TITLE :** Project Icebreaker

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000410	DE-EE0005989	GFO-0005989-001	GO5989

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.

Rational for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to the Lake Erie Energy Development Corporation (LEEDCo) to prepare for and facilitate the deployment of a nine 3 MW turbine offshore wind farm in Lake Erie, seven miles off the coast of Cleveland, Ohio. This NEPA determination applies to Budget Period 1 (BP1) which includes preliminary activities, such as information gathering, analysis and computer based simulations and modeling. This NEPA determination does not apply to Budget Periods 2-5.

BP1 tasks are as follows:

Task 1.0 – Design

- Subtask 1.1 – 50% Front End Engineering Design (FEED). This subtask is focused on preliminary design of the proposed offshore wind farm.
 - Subtask 1.2 – Foundation Design. The design team would compare four turbine foundation designs with regards to site suitability, ease of installation, local manufacturing capability, and cost competitiveness. Soil borings from the Icebreaker site would be taken also.
 - Subtask 1.3 – Foundation Cost-Benefit Analyses. The project team would develop a decision matrix for a computer program that will aid in selecting appropriate foundation candidates for other deployment locations in the Great Lakes.
- Task 2.0 – Installation, Operations, and Maintenance**
- Subtask 2.1 – Feasibility of a Single Foundation Early in the Project. The goal of this subtask would be to reevaluate

the proposed BP2 instrumentation deployment based on information gathered in Task 1. All BP1 work would be conducted at the desktop level.

- Subtask 2.2 – Installation Methodology. The project team would gather information on offshore wind installation concepts and methodologies for the Great Lakes.
- Subtask 2.3 – Icing Dynamics and System Interaction. The project team would develop computer models to evaluate various aspects of a Great Lakes wind farm.
- Subtask 2.4 – Operations and Maintenance (O&M) Systems. The project team would begin development of an O&M system that will minimize turbine downtime.

Task 3.0 – Environmental and Permitting Process (including public acceptance, education and outreach)

- Subtask 3.1 – State and Federal Permitting.
- Subtask 3.2 – National Environmental Policy Act (NEPA) Review.
- Subtask 3.3 – Submerged Land Lease for Lake Erie.

Task 4.0 – Grid Interconnection

- Subtask 4.1 – Export Cable Interconnection. Under this subtask, the project team would develop an electrical diagram showing the planned cabling layout for the wind farm.
- Subtask 4.2 – Regional Transmission Operator Interconnection. Upon completion of the cabling layout described in Subtask 4.1, the project team would prepare an interconnection agreement.

Task 5.0 – Economic Analysis and LCOE. Based on the outcomes of Tasks 1 – 4, the team would be revising the cost of energy (LCOE) calculations that were submitted with the FOA application. All work conducted would be done using computer models.

Task 6.0 – Budget Period 1 Down-Selection. Under this task, the project team would be submitting all necessary reports to the DOE ahead of the down-selection meeting.

This NEPA determination applies to BP1 which involves information gathering, analysis and computer based simulations and modeling. This NEPA determination does not apply to Budget Periods 2-5 and is subject to further NEPA review prior to the authorization of federal funds.

Authorization of federal funds for soil boring activities under Subtask 1.2 is subject to additional consultation. The recipient is restricted from initiating soil boring activities until all consultations are complete.

DOE has determined that the activities in BP1 are consistent with actions defined in DOE categorical exclusion A9, "information gathering," and B3.1 "site characterization" and are categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Budget Periods 2-5

This restriction does not preclude you from:

Budget Period 1

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

All required federal consultations, including but not limited to Section 7 of the Endangered Species Act and Section 106 of the National Historic Preservation Act, must be completed prior to DOE authorizing funds for soil boring activities. The recipient is restricted from initiating soil boring activities until all consultations are complete and notification has been received from DOE. The DOE Contracting Officer will notify the recipient, in writing, when the consultations have been completed and of any conservation or mitigation measures that must be implemented for soil boring activities.

Kelly Daigle 1/14/2013

DOE Share: \$3,849,724 (non-FFRDC)

DOE FFRDC Share: \$150,000

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: 
NEPA Compliance Officer

Date: 1/17/2013

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: _____