

PMC-ND

(1.08.09.13)

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



RECIPIENT: Lake Erie Energy Development Corporation

STATE: OH

**PROJECT TITLE :** Icebreaker Foundation Engineering and Assessment

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-EE0006714	GFO-0006714-001	

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:

<b>A9 Information gathering, analysis, and dissemination</b>	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.)
<b>B3.6 Small-scale research and development, laboratory operations, and pilot projects</b>	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 deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Lake Erie Development Corporation (LEEDCo) to assess, through research, engineering and laboratory testing, the technical and cost effectiveness of the Icebreaker foundation. No full scale construction, installation or field testing will be undertaken for the execution of this project.

LEEDCo will perform six tasks for this project. These include:

- Task 1 – Economic Analysis and Resource Assessment Study
- Task 2 – Prior Uses of Friction Wheel Study
- Task 3 – Completion of Icebreaker Foundation Design
- Task 4 – Ice Characterization and Modeling
- Task 5 – Friction Wheel Lab Testing
- Task 6 – Information Dissemination

Tasks 1-4 and task 6 are limited to information gathering, analysis and dissemination. Specifically, Tasks 1, 2 and 4 involve information gathering, followed by analysis and dissemination of the learned information. Task 3 involves engineering and design. Task 6 is limited to information dissemination.

Task 5 involves building and testing a 1/50th scale model within a laboratory setting. Testing will consist of a series of centrifuge tests designed to apply loads to the scale model and measure response to those loads. All work within Task 5 will occur within the confines of the laboratory.

For all tasks, no new construction, permits, licenses, authorizations, or modifications to existing facilities will be required.

All solid waste generated by the projects would be disposed of appropriately and would comply with all required standards for disposal of solid wastes.

No additional affects to resources or additional concerns were found to exist during this review.

Based on review of the project information and the above analysis, DOE has determined the project would not have a

significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with actions contained in DOE categorical exclusion A9 "information gathering, data analysis and computer modeling," and B3.6 "small scale research and development, laboratory operations, and pilot projects," and is categorically excluded from further NEPA review.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

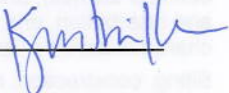
Insert the following language in the award:

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 :

Wind Program  
This NEPA Determination does not require a tailored NEPA provision.  
NEPA review completed by Roak Parker on 11/13/2014.

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

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin  Date: 11/14/2014  
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