

PMC-EF2a

(2.01.02)

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



RECIPIENT: North Dakota State University

STATE: ND

PROJECT  
TITLE : Center for Nanoscale Energy

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-FG36-08GO88160	GFO-GO88160-001	GO88160

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:

**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 deployment.

## Rational for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to North Dakota State University's Center for Nanoscale Energy. DOE funding would be used for research and development in four areas; 1) photovoltaic, 2) lithium ion batteries, 3) catalysis studies of the oxidative cleavage of unsaturated compounds found in plants and its application to fuel cells and 4) membrane development for osmosis water purification plants.

Previous NEPA determinations were made for this award (GFO-08-069 B3.6 7/29/2008, GFO-08-069a B3.6 1/14/2009, GFO-08-069b B3.6 2/23/2010, GFO-10-546 B3.6 7/26/2010) which included research and development work in photovoltaic and catalysts at North Dakota State University (NDSU), University of Toledo, and University of California Riverside. This NEPA determination applies to the addition of two research facilities and the expanded scope of work which includes research and development for lithium-ion batteries and reverses osmosis membrane development. This determination applies to new laboratory facilities on the NDSU campus including: the Research 1 and 2 Addition, Ladd Hall, Dunbar Hall, NDSU Electron Microscopy Laboratory, and the Batcheller Technology Center. All other laboratory facilities, including sub-recipient locations, have been previously reviewed and categorically excluded.

Primary laboratory work would take place at the Research 1 and Research 2 facility located at 1735 NDSU Research Park Dr., Fargo, ND and 1715 NDSU Research Park Dr., Fargo, ND. Additional laboratory work would be completed at the four above mentioned buildings on the NDSU campus. NDSU completed an R&D questionnaire addressing the protocols for laboratory and facility safety, risk management and waste disposal. The laboratories comply with standard safety procedures and all processes and procedures are monitored by Environmental Health and Safety (EHS) staff. NDSU has a Chemical Hygiene Plan in place which includes a Nanomaterial Safety policy. The laboratories have all applicable permits in place, and would not need additional permits for the proposed activities. All handling and disposal of gases, chemicals, wastes and liquid effluents comply with appropriate regulations.

Based on review of the project information and the above analysis, DOE has determined the proposed 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 B3.6 "small-scale research and development 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 :

Kelly Daigle 6/20/2013

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

NEPA Compliance Officer Signature: \_\_\_\_\_

NEPA Compliance Officer

Date: \_\_\_\_\_

6/24/2013

**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: \_\_\_\_\_