

PMC-EF2a

(20402)

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

**RECIPIENT:** General Electric Global Research Center**STATE:** NY**PROJECT TITLE :** Deployable Commercial Solar Electric System

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000493	DE-EE0005437	GFO-0005437-001	0

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

Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

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.

Rational for determination:

DOE is proposing to provide federal funding to the General Electric Global Research Center to conduct laboratory research and development activities that advance solar photovoltaic (PV) technology. DOE funding would be used to develop a deployable solar electric system designed for rapid and low cost installation onto a low slope roof.

The proposed project would be conducted in three phases. This NEPA determination applies only to Phase 1: design, fabrication and testing. Installation and demonstration of the prototype will require additional NEPA review.

Phase 1:

- Task 1.0: Establish Electrical Specifications
- Task 2.0: Lightweight Module Feasibility
- Task 3.0: Concept Design for Folding String Array
- Task 4.0: Concept Design for the Track and Sliding Interface
- Task 5.0: Perform Structural Analysis
- Task 6.0: Fabricate Rapid Prototype
- Task 7.0: Electrical Design and Performance Estimates
- Task 8.0: Busway Design and Interface
- Task 9.0: Cost and Value Evaluation
- Task 10.0: Project Management and Reporting

Phase 2:

- Task 11.0: Prototype

Phase 3:

- Task 12.0: Demonstration

All research, prototype fabrication and testing would occur in a laboratory environment within the GE Global Research facility (1 Research Circle, Niskayuna, New York 12309). The facility has completed an R&D questionnaire addressing the protocols in place for laboratory safety, risk management, chemical handling and waste disposal. The facility complies with standard laboratory safety procedures and labs are inspected by staff and safety personnel. The facility operates under all applicable permits to conduct research. Liquid effluents consisting of solvents, acids, bases, chemical reagents, and other liquid wastes will be disposed of by licensed contractors.

Based on this information, DOE has determined the work outlined is consistent with activities identified in categorical exclusion A9 (information gathering) and B3.6 (indoor bench-scale research and conventional laboratory operation).

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:

Phase 2 and 3

This restriction does not preclude you from:

Phase 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 :

Cristina Tyler 11.09.2011

DOE Funding: \$1,575,985
Cost Share: \$1,381,646
Total Project Cost: \$2,957,631

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Kristi Ke
NEPA Compliance Officer

Date: _____

11/9/2011

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: _____