

PMC-ND
(1.08.09.13)

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



RECIPIENT: General Electric

STATE: NY

PROJECT TITLE : Deployable Commercial Rooftop Solar Electric System

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000493	DE-EE-0005437	GFO-0005437-003	

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.)
B3.6 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.
B5.16 Solar photovoltaic systems	The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rationale for determination:

The U.S. Department of Energy (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.

Two previous NEPA determinations were made: 11/09/2011 (GFO-0005437-001 CX A9, B3.6) for Phase 1 activities which included establishing specifications, feasibility, concept design, fabrication and performance estimates and 09/26/2012 (GFO-0005437-002, CX B5.15) for Phase 2. This determination applies to Phase 3 which includes the following tasks:

- Task 1: To standardize design and simplify installation of the wiring of the 4-element folding array through the use of pre-installed jumper wires.
- Task 2: To update the design of the current FEM model.
- Task 3: To procure kit components including solar cell laminates and aluminum panels.
- Task 4: To demonstrate project design to show how project engineering costs can be reduced.
- Task 5: To demonstrate project execution via the installation of the folding array system.
- Task 6: To demonstrate the system at a major industry trade-show.
- Task 7: To develop cost reduction.
- Task 8: To manage, report and review.

During Phase 3 a 48 kilowatt deployable solar electric system would be installed onto a low slope roof. All work would be performed at the GE Global Research Center, 1 Research Cir, Schenectady, NY 12309 and installed by an experienced and certified roof crew. The system would weigh less than 1.5 pounds per square foot. The demonstration solar system has the potential to back feed energy into the grid and so electrical interconnection approval would be applied for through the National Grid utility.

There are no known or potential health or safety hazards to the public or project workers and all appropriate safety measures would be followed during the course of the project. Because the projects would be located on previously disturbed land at an existing facility, DOE has determined the proposed scope of work would not have any adverse impacts to cultural resources, floodplains or wetlands at the proposed sites.

Based on the review of the project information and the above analysis, DOE has determined the development of a deployable solar electric system 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, analysis and dissemination," B3.6 "small-scale research and development, laboratory operations and pilot projects," and B5.16 "solar photovoltaic systems" 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 :

This NEPA determination does not require a tailored NEPA provision.

May Mock
4/16/2014

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: *Kunhi K.*
NEPA Compliance Officer

Date: 4/17/2014

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: _____