

PMC-EF2a

(20402)

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



RECIPIENT: Alencon LLC

STATE: PA

PROJECT TITLE : Extreme Cost Reductions with Multi- Megawatt Centralized Inverter Systems

| | | | |
|--|--------------------------------------|----------------------------|-------------------|
| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
| DE-FOA-0000479 | DE-EE0005343 | GFO-0005343-002 | |

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. |

Rational for determination:

DOE is proposing to provide federal funding to Alencon Systems, Inc. (Alencon) to advance solar photovoltaic (PV) technology. DOE funding would be used to support laboratory research and development activities that commercialize a new type of transformational utility scale PV system based on a centralized inverter system with a capacity of up to 100 MW, and a high voltage (2500 VDC), string-wise Maximum Power Point Tracking (MPPT) harvesting approach.

DOE made a previous NEPA determination, GFO-0005343-001 (CX A9, B3.6 12/15/2011) for Phase I which included system design specifications, modeling and simulation, prototype development and lab testing. This NEPA determination applies to Phase II which includes final lab demonstration and testing of the high voltage dc-dc converter.

Work would be completed at two Rowan University (RU) facilities and an Alencon facility.

Research and development activities would be conducted at two Rowan University facilities located at 201 Mullica Hill Road, Glassboro, New Jersey 08028 and 107 Gilbreth Parkway, Mullica Hill, New Jersey 08068. RU has completed an R&D questionnaire addressing the protocols in place for laboratory safety, risk management, chemical handling and waste disposal, RU complies with standard laboratory safety procedures and labs are inspected by staff and safety personnel. RU operates under all applicable permits to conduct research. Liquid effluents consisting of solvents, acids, bases, chemical reagents, and other liquid wastes will be managed by RU personnel.

Conversion technology development would be conducted at Alencon, located at 330 S. Warminster Road, Suite 380, Hatboro, Pennsylvania 19040. Alencon has completed an R&D questionnaire addressing the protocols in place for laboratory safety, risk management, chemical handling and waste disposal. Alencon complies with standard laboratory safety procedures and labs are inspected by staff and safety personnel. RU operates under all applicable permits to conduct research.

At this time, Phase III has not been defined to the extent that DOE can conduct a NEPA review. This NEPA determination does not apply to Phase III and is subject to further NEPA review prior to the authorization of federal funds.

DOE has determined that the final lab demonstration and testing in Phase II are consistent with actions defined in DOE categorical exclusion A9, "information gathering," and B3.6 "small-scale research and development".

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 III-Field pilot installation, integration and testing

This restriction does not preclude you from:

Phase II- Final design and lab testing

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 :

Kelly Daigle 10/10/2012

DOE share \$1,000,000

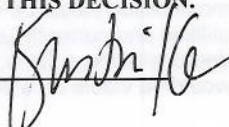
Cost share \$894,368

Total \$1,894,368

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically Signed By: **Kristin Kerwin**
NEPA Compliance Officer



Date: 10/11/2012

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: _____