

PMC-EF2a

(2.04.02)

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

**RECIPIENT:** Alencon Systems, Inc.**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-0005343-001	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:

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 novel, 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.

The proposed project would be conducted in three Phases. This NEPA determination applies only to Phase 1. Phase 2 and 3 will require additional NEPA review.

Phase 1 would involve system design specifications, modeling and simulation, prototype development and laboratory testing. All laboratory work would be conducted at Lockheed Martin and Alencon. Both facilities have completed an R&D questionnaire addressing the protocols in place for laboratory safety, risk management, chemical handling and waste disposal.

Computer modeling, simulation and design work would be conducted at Lockheed Martin located at 199 Borton Landing Road, Moorestown, New Jersey 08057 and 2323 Eastern Boulevard, Baltimore, Maryland 21220. Lockheed Martin has an Environmental, Health & Safety (EHS) management system in accordance with the ISO 14001:2004 and OSHA 10880:2007 standards. All facilities have designated EHS coordinators and have documented site specific EHS compliance programs.

Prototype development and testing would be conducted at the Alencon's Inductotherm Facility located at 10 Indel Avenue, Mount Holly, New Jersey 08060. Alencon follows all OSHA and company safety standards and is internally audited to ensure such compliance is maintained. Alencon operates under all applicable permits to conduct research. Test equipment would be connected to individual breakers that are able to safely disconnect power in case of an emergency. The proposed project would not require the use of gases, chemicals or hazardous materials.

Based on this information, DOE has determined the work outlined is consistent with activities identified in categorical exclusion A9 (information gathering) and B3.6 (small-scale research and development activities, laboratory operations and pilot projects).

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 12.12.2011

DOE Funding: \$200,000
Cost Share: \$50,000
Total Project Cost: \$250,000

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: _____

12/15/2011

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: _____