

PMC-ND

(1.08.08.13)

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



RECIPIENT: Suniva, Inc.

STATE: GA

PROJECT TITLE : Towards the Next Generation 23% Efficient-Type Cells with Low Cost Manufacturing

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001018	DE-EE0006815	GFO-0006815-001	

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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Suniva, Inc. to develop a high efficiency photovoltaic (PV) solar cell with $\geq 22.5\%$ efficiency that is compatible with high volume low-cost manufacturing.

The proposed project activities would involve computer simulations that would model and optimize solar cell performance, silicon wafer to cell conversion, and testing of solar cells. All proposed activities would consist of computer modeling, data analysis and laboratory operations. Suniva would partner with the University Center of Excellence for Photovoltaics Research and Education at Georgia Tech in Atlanta, GA. Two solar cell processing tools would be acquired and installed at Suniva as part of this project. The tools would be accommodated by Suniva's existing floor space in the research and development (R&D) laboratory, and would require some upgrades to facilities to meet requirements for electrical, gas, and exhaust services. While it is not expected that the proposed project would require new or modified permits for the Suniva operations, due to the use of several new chemicals necessary for the new processing equipment Suniva would submit project plans to both Gwinnett County and the Georgia Environmental Protection Division for wastewater and emissions review and approval. The project would involve the use and handling of various hazardous materials, including metal pastes, gases, acids, and industrial solvents. All such handling would occur in R&D laboratories at Suniva and Georgia Tech and in Suniva's production area. Suniva and Georgia Tech have dedicated hazardous material handling and disposal practices, and all hazardous materials would be managed in accordance with federal, state, and local environmental regulations. Existing corporate and University health and safety policies and procedures would be followed including employee and student training, proper protective equipment, engineering controls, monitoring, and routine internal assessments.

Based on a review of the project information and the above analysis, DOE has determined that the proposed project would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that this project is consistent with actions outlined in DOE categorical exclusion A9 "information gathering" and B3.6 "Small-scale research and development, laboratory operations, and pilot projects" and is therefore 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 :

Review completed by Logan Sholar on 09/15/14.

This NEPA Determination does not require a tailored NEPA provision.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  NEPA Compliance Officer Date: 9/15/2014

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: _____ Date: _____
Field Office Manager