

PMC-ND  
(1.08.09.13)

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



**RECIPIENT:**SolarWorld Industries America Inc.

**STATE:** OR

**PROJECT TITLE :** NeoGrowth Silicon: US Manufacturing of Solar Wafers

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-00001018	DE-EE0006806	GFO-0006806-001	

**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 SolarWorld Industries America Inc. (SolarWorld) to develop a new crystal growth system for the manufacturing of silicon ingots.

The proposed project activities would involve prototype furnace operation and ingot creation process development along with pilot scale production focusing on silicon ingot growth and slicing wafers from the ingots. Proposed activities would consist of computer modeling, data analysis and small scale research and development (R&D) and would occur at the SolarWorld facilities in Hillsboro, Oregon.

New equipment would be acquired and installed at the SolarWorld facilities as part of this project. The equipment would be accommodated by SolarWorld's existing floor space in the R&D laboratory and would require electrical upgrades to the facilities. The associated electrical and general building permits would be obtained as needed to complete the installation. Excluding the installation of new equipment, there would be no modifications expected to facilities at the existing site as a result of the proposed project. The proposed project would produce several hundred silicon ingots expected to necessitate the use of up to 50 tons of silicon, one ton of quartz materials, 25,000 cubic meters of argon gas, and hundreds of gallons of hydrofluoric and nitric acids. This would be a small fraction (less than one percent) of SolarWorld's current overall site usage.

All liquid chemicals would be subject to reclamation, treatment and/or neutralization on site and all effluent gases would be treated using on-site air scrubber systems and released within the permitted limits per local, state and federal requirements. Existing Environmental, Health and Safety (EHS) procedures would be followed according to company policy and standard practice. In the case of work on electrical power supplies, Lockout/Tagout procedures would be followed. Hazard and risk assessments for major activities of the proposed project have been completed.

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

**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 :

Solar Energy Technologies Office

This NEPA Determination does not require a tailored NEPA provision.

Review completed by Logan Sholar on 09/23/14.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature:  NEPA Compliance Officer Date: 9/23/2014

**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