

PMC-ND
(1.08.09.13)

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



RECIPIENT: Abengoa Solar LLC

STATE: CO

PROJECT TITLE : Improved Large Aperture Collector Manufacturing

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000862	DE-EE0006357	GFO-0006357-001	

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.
- B5.17 Solar thermal systems** The installation, modification, operation, and removal of commercially available smallscale solar thermal systems (including, but not limited to, solar hot water systems) located on or contiguous to a building, and 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 Abengoa Solar to develop and demonstrate the manufacturing techniques that would allow the concentrated solar power (CSP) parabolic trough technology, known as the SpaceTube, to enter the market. DOE funding would be used for manufacturing, engineering, development, and pre-commercial feasibility demonstrations focused in three main areas; an aggressive manufacturing optimization of the collector sub-structures for lower input material costs & mechanized production, a low-investment-cost "lean" assembly line system, and a standalone quality control inspection applied to the installed collector.

Research and development activities would occur at Abengoa Solar, located at 11500 W 13th Ave., Lakewood, Colorado. Abengoa completed an environmental questionnaire addressing the protocols for laboratory safety, risk management, chemical handling and waste disposal. The laboratory complies with standard safety procedures and all processes and procedures are monitored by appropriate staff. The laboratory has all applicable permits in place, and would not need additional permits for the proposed activities. All handling and disposal of gases, chemicals, wastes and liquid effluents comply with appropriate regulations.

Prototype inspection and fit/finish assembly testing would occur at SolarTAC Test Site, located at 2900 North Hudson Road, Watkins, Colorado. The first test area would be inside a large fabric building. It is 50 ft. wide by 100 ft. long by 50 ft. tall with a large bay door at one end and two lockable egress doors. The floor is a concrete slab and it has footings pre-installed for full-scale testing of large (25 ft. x 50' ft.) trough prototypes. It is electrified with both 120V and 240V power. A drive tracker and a prototype trough module have been previously installed.

The second test area would be at an existing outdoor field testing area. This area is approximately 640 ft. by 160 ft. and contains a year-round accessible road around the perimeter. It is surrounded by a slatted chainlink wind/security fence that is 15 ft. high. The ground surface inside this area is grass. A full row of trough foundations and a hydraulic tracker, which allows rotational tracking & fit/finish testing of trough prototypes, has been previously installed. No

trenching is planned at either location.

The U.S. Fish and Wildlife Service (USFWS) Endangered Species Program website identifies seven species in Adams and Arapahoe County as threatened or endangered: whooping crane, Mexican spotted owl, piping plover, least tern, Ute ladies'-tresses, black-footed ferret, prebles meadow jumping mouse. Because the project would be located on previously disturbed land at an existing solar testing facility and is small in scale, DOE has determined the project is not likely to affect the listed species. The proposed scope of work would not have any adverse impacts to cultural resources, floodplains or wetlands, as these resources are not known to occur at the proposed site.

Based on review of the project information and the above analysis, DOE has determined the research, development and field testing activities 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 B5.17 "solar thermal 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.

Kelly Daigle 9/11/2013

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

[Handwritten Signature]
NEPA Compliance Officer

Date: 9/12/2013

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: _____