

PMC-EF2a

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



(20402)

RECIPIENT: Suntrough Energy, Inc

STATE: CA

**PROJECT TITLE :** Research & Development of a Low Cost Solar Thermal Collector

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000104	DE-EE 0003591	GFO-10-507	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 (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

## Rational for determination:

Suntrough Energy Inc proposes to use federal funds to develop a new class of solar concentrators with geometrics and manufacturability that can significantly reduce installation costs of a solar collector field. Suntrough project is the integrated design, development, and a manufacturing solution of new solar collectors.

This project will take place in 3 phases.

Phase 1-design, comprehensive requirement documents, preliminary collector design specifications, trade parameters & comparative metrics, preliminary design, preliminary manufacturing plan, preliminary costed bill of materials, preliminary collector field test plan, preliminary qualification plan, optimization of structure, automatic cleaning design, comprehensive analytical models, and phase 1 test model installation and testing.

Phase 2-development of this project will consist of final collector system design specification, final detailed analytical models, engineering mechanical drawing, detailed foundation design, comprehensive manufacturing plan update, update detailed costed bill of materials, tooling plan, developing a quality assurance plan, build soft-tooled proto-production collectors, and phase 2 component testing and reports.

Phase 3-manufacturing solution will include detailed collector design package, a final manufacturing plan, complete qualification of pilot production line, and phase 3 testing and reporting.

This project includes conventional laboratory work, the applicant has submitted an R & D Questionnaire which thoroughly addresses chemical and safety handling protocols.

This project is comprised of information gathering and research and development to include manufacture of solar collecting devices; therefore a CX A9 & B3.6.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Eugene Brown 9/10/2010

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

NEPA Compliance Officer Signature: Kristin Kerwin Date: 9/10/2010  
NEPA Compliance Officer

**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