

PMC-ND  
(1.08.09.13)

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

**RECIPIENT:**Sunvapor, Inc.**STATE:** CA**PROJECT TITLE :** Green Parabolic Trough Collector(GPTC) inspired by an architectural paradigm

|  |                                      |                            |                   |
|--|--------------------------------------|----------------------------|-------------------|
| <b>Funding Opportunity Announcement Number</b> | <b>Procurement Instrument Number</b> | <b>NEPA Control Number</b> | <b>CID Number</b> |
| DE-FOA-00001268                                | DE-EE0007343                         | GFO-0007343-001            | GO7343            |

**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:

|  |  |
|--|--|
| <b>A9 Information gathering, analysis, and dissemination</b> | 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.) |
|--|--|

**Rationale for determination:**

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Sunvapor, Inc. to demonstrate that a single-axis concentrating parabolic trough collector (PTC) meets the Concentrating Optics for Lower Levelized Energy Costs (COLLECTS) cost-to-performance ratio of 0.91 and a lifetime greater than 30 years.

The proposed project activities would include the design, assembly and field testing of a prototype PTC. Design activities would take place at the Sunvapor research and development office in Livermore, CA and on the MIT campus in Boston, MA. Prototype assembly and field testing would be completed at a testing site for 1.5 years. The site for the field testing has not been identified at this time; therefore, there is not enough information to review fabrication, assembly and field-testing activities, and those activities are prohibited until DOE has completed additional NEPA review. This NEPA review is for Task 1 design activities only.

Task 1 activities would be limited exclusively to intellectual, academic, or analytical activities and would include the design of the prototype PTC. Project participants would use no physical materials beyond basic office supplies and software.

Based on review of the project information and the above analysis, DOE has determined that Task 1 activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that Task 1 activities are consistent with actions contained in DOE categorical exclusion A9 "information gathering, analysis and dissemination" and are categorically excluded from further NEPA review.

**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:

Task 2: Fabrication and assembly of Prototype

Task 3: On-sun testing

This restriction does not preclude you from:

Task 1: Design in two phases - Concept design and detailed prototype design

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.

Insert the following language in the award:

You are required to:

The recipient is required to submit a new EQ-1 for Task 2 and 3 activities for additional NEPA review. Work on those activities cannot begin until NEPA clearance is obtained.

Note to Specialist :

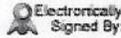
Solar Energy Technologies Office

This NEPA determination requires a tailored NEPA provision. Please see above

Review completed by Logan Sholar on 4/6/2016

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

NEPA Compliance Officer Signature: \_\_\_\_\_



Lori Gray  
NEPA Compliance Officer

*Lori Gray*

Date: 4/8/2016

**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: \_\_\_\_\_