

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Natural Energy Laboratory of Hawaii Authority (NELHA)**STATE:** HI

**PROJECT TITLE:** Hawaii Solar Desalination Project

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0001778	DE-EE0008403	GFO-0008403-001	

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 federal funding to the National Energy Laboratory of Hawaii Authority (NELHA) for the design, development, fabrication, and field testing of a Forward Osmosis (FO) solar thermal desalination plant. The project would be completed over three Budget Periods (BP). This NEPA determination is only for BP1 tasks and subtasks as identified in the project's Statement of Project Objectives. Tasks associated with BP2 and BP3 are dependent upon installation of the proposed FO system at the NELHA concentrating solar power (CSP) renewable energy and research facility (CSP Farm), located near Kona, Hawaii. Additional information is needed regarding installation prior to review of those BPs. As such, all tasks associated with BP2 and BP3 are not able to be reviewed at this time.

Project activities for BP 1 would include: project management and reporting; planning and design; and system fabrication.

Project management, planning, and design work would occur at Trevi Systems Inc. in Petaluma, CA. Work at this location would include designing the FO system.

Fabrication of the proposed FO system would involve the use, machining, and handling of various hazardous materials including metals, plastics, industrial adhesives, and solvents. Fabrication of the FO system would occur at a dedicated fabrication facility which has not yet been identified. The fabrication facility would be a facility which fabricates similar components in its regular course of business. No modifications to the facility would be required. Standard health and safety procedures would be followed during fabrication. The system, once fabricated, would be of a size to be shipped to the CSP Farm in three standard 20 foot shipping containers.

Based on the review of the proposal, DOE has determined that BP1 of the proposal fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusion(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR

1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. BP1 of this proposal is 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:

All Budget Period 2 activities

All Budget Period 3 activities

This restriction does not preclude you from:

All Budget Period 1 activities

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.

Note to Specialist :

Solar Energy Technologies Office

This NEPA determination requires a tailored NEPA provision

NEPA review completed by Roak Parker on 8/17/18

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

NEPA Compliance Officer Signature:



Casey Strickland

NEPA Compliance Officer

Date:

8/23/2018

**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: