PMC-EF2a
(2.04.02)

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

RECIPIENT: BrightSource Energy

STATE: CA

PROJECT TITLE: Flexible Assembly Solar Technology

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-SOL-0000595	DE-EE0005792	GFO-0005792-001	

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:

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.
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.

Rational for determination:

DOE is proposing to provide funding to BrightSource to design, build, and demonstrate a Flexible Assembly Solar Technology (FAST) system that is intended to achieve cost reduction and save time associated with construction of the solar field. A FAST system would accelerate the heliostat assembly and field installation processes by combining elements of both functions on a single platform with direct access to the solar collector field. With FAST, preliminary assembly of the mirror units would take place at a centralized off-site facility capable of supplying multiple CSP projects. An automated and transportable FAST platform located on-site would then perform final assembly of these partially assembled mirrors and deliver them into the solar field for final installation.

BrightSource would design, fabricate and "alpha" test a FAST prototype at the BrightSource Solar Energy Development Center (SEDC) located in the Rotem Industrial Park in Israel's Negev Desert, about 97 miles south of Jerusalem (Tasks 1.1 and 1.2). BrisghtSource's 6 megawatt solar-thermal SECD consists of more than 1500 heliostats that focus sunlight a 200-ft tower that produces utility-grade steam. In order to validate the FAST concept, the prototype "alpha" testing would involve the assembly and installation of approximately 150 next-generation heliostats at SECD. Each heliostat mirror measures approximately 12 ft x 8.5 ft. As this prototype design, fabrication and "alpha" testing will occur at an existing commercial solar thermal site, no adverse impacts to the human environment are expected.

A go/no-go decision is scheduled after Task 1 is complete. Task 2 (sub-tasks 2.1 and 2.2) is subject to additional NEPA review.

Tasks 1.1 and 1.2 comprise design, initial fabrication and "alpha" testing of a solar thermal assembly at an existing commercial solar thermal site in Israel, as such CX A9, CX B3.6, and 5.17apply.

Task 2.1 "Prototype Manufacturing" and Task 2.2 "FAST Prototype Deployment" are conditioned upon 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 (subtasks 2.1 and 2.2) - including manufacturing and deployment of the FAST system.
This restriction does not preclude you from:
Task 1 (subtasks 1.1 and 1.2) - including design and fabrication and "alpha" testing of the prototype FAST system.
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 :

Funding information for all Tasks:
DOE: $4.8M
BrightSource: $4.9M
Total: $9.7M

Task 1:
Total: $1,220, 626

Task 2 (conditioned upon further NEPA review)
Total: $8,369,943

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin Date: 8/22/2012
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