PMC-EF2a

(2.06.02)

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

RECIPIENT: Thermata, Inc. **STATE:** CA

PROJECT TITLE : Heliostat System with Wireless Closed-Loop Conrol

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000595	DE-EE0005793	GFO-0005793-001	

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:

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 federal funding to Thermata, Inc. (Thermata) to conduct research and development activities that demonstrate a heliostat that uses a closed-loop, optical tracking system. DOE funding would be used to design, build, test and install a prototype heliostat system on the roof of Idealab.

Budget Period 1
Task 1.1 Systems Engineering and Modeling
Task 1.2 Testing and Characterization System (TCS) Development
Task 1.3 Engineering and Design Validation
Task 1.4 Program Management

Budget Period 2
Task 2.1 Field Testing Prototypes
Task 2.2 Production Validation
Task 2.3 Program Management

Laboratory work would be conducted at Idealab (130 West Union Street, Pasadena, California 91103), which is a converted industrial building constructed between 1905 and 1915. Based on the age of the building and its location in an historic district, DOE will consult with SHPO prior to prototype installation on the roof.

Idealab has completed an R&D 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 Thermata and Idealab. Thermata has established an Injury and Illness Prevention Program, which is monitored internally.

Idealab maintains a certificate to operate a compressed air vessel (air compressor) as well as all other applicable permits. No gases or heavy metals would be used. Small amounts of household cleaners (isopropyl and ammonia-based) and simple adhesives would be used, stored and disposed of in accordance with their labeling and State and federal regulations. Thermata will apply for a California EPA Conditionally Exempt Small Quantity Generator ID number.

Based on this information, DOE has determined Budget Period 1 is consistent with activities identified in categorical exclusion B3.6 (indoor bench-scale research and conventional laboratory operation).

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:
Prototype installation on the roof of Idealab (Budget Period 2)
This restriction does not preclude you from:
Laboratory design and testing of the prototype (Budget Period 1)
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 :

Cristina Tyler 8.3.2012

DOE Funding: $1,000,000
Cost Share: $2,300,000
Total Project Costs: $3,300,000

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin Date: 8/6/2012
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