

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Edisun Microgrids, Inc.**STATE:** CA

PROJECT TITLE: Unique Hardware/Software Solution for Low-Cost Heliostat Collectors

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001840	DE-EE0008735	GFO-0008735-001	

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), 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 Edisun Microgrids, Inc. ('Edisun') to design, develop, fabricate, and field test a low-cost, high performance heliostat system which is an integrated hardware/software solution.

The proposed project would involve progressing Edisun's heliostat and heliostat control system through several phases of development. Budget Period (BP) 1 of the project would focus on preliminary design and engineering validation. BP1 activities would include the fabrication and testing of a number of prototypes. BP2 of the project would focus on production validation. BP2 activities would include computer simulations, market research, supply chain development, and other desktop/in-lab studies addressing the needs and opportunities associated with design scale-up to larger heliostat fields and high volume productions. The outcome of BP2 is expected to be an understanding of the cost and performance of commercial-scale manufacturing and operation; the scope of the proposed project is limited to small-scale research and development (R&D) and does not include production at scale.

Design and development using CAD/CAM software and other analytical tools would occur at Edison's offices in Pasadena, CA. Fabrication and bench testing of prototype components and assemblies would occur at Edison's industrial R&D facility in Pasadena, CA. Field testing of prototype assemblies would occur at Edison's dedicated test site in Lancaster, CA. Project activities at the test site would include the short-term and temporary installation of equipment outdoors. Ground-mounted prototype units would be installed on a relatively small area (approximately 9 square meters) of previously disturbed land within the fully-permitted test field developed by Edisun for heliostat systems. Edisun would not need additional permits for the proposed activities. No change in the use, mission, or operation of existing facilities would arise out of project efforts.

The project would involve the use and handling of small quantities (approximately 5 kg each) of various hazardous materials, including industrial lubricants, solvents, and adhesives. All such handling would be conducted within

properly confined space at purpose-built laboratory facilities. Edisun is committed to proper hazardous material management and disposal practices in compliance with applicable Federal, state, and local regulations. All project participants would adhere to existing corporate health and safety policies and procedures, including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments.

Non-hazardous materials used for the fabrication and testing of prototypes would consist of metal (approximately 864 kg total), plastic (approximately 144 kg total), and glass (approximately 432 kg total). Leftover materials as well as standard office waste generated during the course of the project would be disposed of through local waste management services. After the conclusion of the proposed project, the installed prototypes would be removed and properly disposed of in a commercial waste facility. No new or additional waste storage, disposal, or treatment actions/facilities would be required.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Solar Energy Technologies Office

This NEPA determination does not require a tailored NEPA Provision.

NEPA review completed by Whitney Doss, 7/9/2019

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

 Electronically Signed By: Kristin Kerwin

NEPA Compliance Officer

Date: 7/10/2019

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
 Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____
Field Office Manager

Date: _____