

PMC-EF2a

(2.04.02)

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



RECIPIENT: Sacramento Municipal Utility District

STATE: CA

PROJECT TITLE : SMUD PV & Smart Grid Pilot at Anatolia

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000085	DE-EE0002066	GFO-10-197	0

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 (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.
- B5.1** Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

Rational for determination:

The Sacramento Municipal Utility District (SMUD) is proposing to use ARRA funding through DOE to evaluate the impact of energy storage combined with existing and previously installed solar PV systems in a functioning distribution grid. The project will be conducted in the existing Anatolia III residential community within SMUD's service area. Residential energy storage (RES) systems comprised of lithium ion batteries and inverters will be installed in fifteen of approximately two hundred energy efficient homes. In addition, three community energy storage (CES) systems comprised of lithium ion batteries and inverters will be installed adjacent to existing transformers within SMUD easements. The project will measure any changes in consumer behavior because of the additional storage installations. This project will also expand the existing NREL Anatolia monitoring platform to include high resolution optical distribution monitoring systems (ODMS). The selected homes will be receiving new metering as part of SMUD's ongoing overall program of deployment of AMI, and the metering will allow SMUD to monitor the hourly electricity usage of customers. Consumers will also be able to monitor their energy usage.

No historical buildings will be adversely affected because the community is a relatively new housing development. All appropriate building permits will be secured prior to installation of the battery/inverter systems.

Tasks to be performed under this project involve data analysis and monitoring of residential use, reporting of project activities, and installation/integration of energy storage systems.

The project comprises demonstrations of potential energy conservation and energy-efficiency activities along with data analysis and information gathering techniques; therefore it qualifies as a CX under A9 and B5.1.

**As part of the project documentation, a R&D Laboratory Environmental Impact Questionnaire was included that described the manufacture of the lithium ion battery systems which would be used for the project. The activities described in this document fully addressed waste handling, safety protocols, and testing of batteries and inverters. Although these activities were not included in the statement of project objectives, the activities fall under the categorical exclusion of B3.6 regarding R&D small-scale research and development projects.

NEPA PROVISION

DOE has made a final NEPA determination for this award

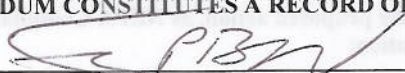
Insert the following language in the award:

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: _____

3/21/10

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: _____