

PMC-EF2a

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



RECIPIENT: Pacific International Center for High Technology

STATE: HI

PROJECT TITLE : Hawaii Renewable Energy Development Venture

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
CDP	GO88146	GFO-08-143-002	GO88146

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** 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).
- 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.

Rational for determination:

The Hawaii Renewable Energy Development Venture proposes to use federal funds to develop and test technologies that create viable renewable energy systems and to develop policies to promote those systems. This NEPA determination is given to lift conditions from GFO-08-143-001, six companies have been awarded for task 2 projects.

Task 2 of this project would include project funding to 6 sub-recipients: Better Place, Concentris Systems, Kuekne AgroSystems Inc, Sentech, Sopogy, and Satcon. Sentech's role was to aid in the selection of projects and is only associated with task 1 of this award.

1. Better Place proposes a demonstration of 10 smart charging stations for electric vehicles in 5 garage locations. This will include finalizing master project plan; EV sourcing, conversion, and validation; create overall system architecture; charging infrastructure design, acquisition and installation; user support; community outreach and education; confirm go-live readiness; ongoing monitoring operations; research; and project management and reporting.

This project involves information gathering and installation of a charging system for electrical vehicles; therefore a CX A9 & B5.1

2. Concentris proposes a project that will utilize a military housing community as a testing pool for pre-commercialization of a networked smart grid meter system. All preparation and indoor-construction work associated with this project will be for electrical system modifications. This will include contract kickoff and development of a concept of operations; develop smart sockets architecture; integrate ZigBee and WiFi Mesh network hardware and software; laboratory testing; site preparation, training; Live test-bed deployment in military housing community; and project management and reporting.

This project involves conventional laboratory development and installation of an electrical monitoring system in military housing; therefore a CX B3.6 & B5.1 will apply.

3. Kuekne Agrosystems Inc and Sopogy propose to develop biofuel production from microalgae as a clean and

renewable source of energy by attaching bioreactors to a wastewater treatment plant effluent to collect excess BOD left from water treatment. The reactors will catch effluent water between the treatment plant and natural waterway. This project will include site preparation and installation of equipment to establish technology linkage to include piping, fabrication of reactors, testing of water for algae production, and to test and evaluate for continuous operation.

This project is comprised of information reporting & collection and growth of algae from a water treatment plant for the purposes of producing biofuel; therefore a CX A9 & B5.1 will apply.

4. Sentech was contracted to HDEV to aid in the selection process and will have no project; NEPA was addressed on the GFO-08-143-001 NEPA determination.

5. Satcon proposes to develop and install a grid interactive direct-current link photovoltaic charging station. The photovoltaic panels will be installed on the roof of the Castle and Cooke Lanai Administration Building. This project will include the development of system components to include the bidirectional inverter, charge and discharge unit, system controller, and system integration; phase 2 will be the system demonstration to include installation, certifications, and field testing the system. The Castle and Cooke Lanai Administration building was constructed in 1990 and is not eligible for the National Register of Historic Places.

This project involves installation of solar panels to conserve energy; therefore a CX B5.1 will apply.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Eugene Brown 9/16/2010

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Kristin Kerwin Date: 9/16/2010
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