

PMC-EF2a

(2.04.02)

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



RECIPIENT: MI Department of Energy, Labor & Economic Growth

STATE: MI

PROJECT TITLE : Renewable Energy & Energy Efficiency Tech Demo - Energy Systems Group

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000166	GFO-09-148-023	GO0

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:

- B5.1** 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.
- 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.
- A11** Technical advice and planning assistance to international, national, state, and local organizations.
- 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 State of Michigan will provide \$452,333 in Recovery Act funds to Energy Systems Group to purchase and install a 1.8 MMbtu/hr biomass boiler and generator in the Clean Energy Research Center at Oakland University. The project is located at 2200 North Squirrel Road, Rochester, MI on the property of the John Dodge/Matilda Wilson estate. The building involved with the project is the Shotwell Gustafson Pavillion.

The project entails the removal of an old steam boiler and installation of new, high efficiency gas fired hot water boilers. In addition, a wood fired boiler will be installed for demonstration purposes. Other educational demonstration equipment will be installed for educational purposes in the field of clean energy technologies. The work and educational demonstrations will include:

- o Control system upgrade with building utility sub-metering
- o Lighting upgrade
- o Biomass (wood chip) boiler installation
- o Biomass gasifier and multiple prime movers (a stirling engine and a steam engine)
- o On-site biodiesel production (small 85 gallon processor)
- o On-site ethanol production (micro sized continuous process)
- o On-site biomass densification lab consisting of wood chipping, hammer mill, and a pellet press

The project will use waste wood stored at Oakland University as well as wood from trimming, cutting and clearing to power a woodchip boiler to create heat to power. The initial focus of the project will be installation and demonstration of biomass and combined heat and power (CHP) system. Biomass fuel procurement, processing, and handling will also be part of the effort. A full chipping, shredding, and pelletization line will be used for educational and R&D purposes for biomass systems. This portion of the project will use existing space at the Clean Energy Research Center.

The project will occur in existing facilities on the Oakland campus. The location of the boiler is not expected to have adverse effects to threatened and endangered species, wetlands, floodplains or cultural resources. The site; however,

is of historical significance. The project team has initiated contact with the State Historical Preservation Office (SHPO) and will secure approval from the SHPO prior to the start of construction.

Based on the information provided by the State and recipient, the work outlined is consistent with activities contained within the State-signed SEP Template and with Categorical Exclusion A9, A11, B3.6, and B5.1. This project will require SHPO approval before commencing.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:

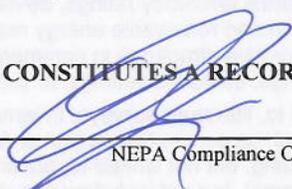
Notify the DOE project officer of approval from the Michigan SHPO before commencing with work at the project site.

Note to Specialist :

According to the project officer, funding for this project is \$452,333. Absent a significant change in the scope of this effort, a change in funding will not affect my determination. SHPO concurrence is required before commencing with construction at the site.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: _____

7/7/10

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: _____