

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 : Michigan COGEN Project - Secondary Complex

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	EE0000166	GFO-09-148-011	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.

Rational for determination:

The Michigan Dept. of Energy, Labor and Commerce is proposing to use approximately \$5,500,000 of Recovery Act funds to purchase and install two gas turbine engines and two absorption chillers as part of a combined heat and power cogeneration project at the State Secondary Complex public services building.

The turbines, generators and heat recovery boilers will be installed in a space that is currently occupied by an existing boiler. This will require the demolition of the existing boiler, removal of obsolete support systems for that boiler, and refurbishment of the space for the new turbines. The project will install two gas turbine engines with electrical generators in the approximate space cleared of the old boiler. The engines will be fueled by natural gas and will provide the power to drive the generators, which are rated at 1,210 kW each for a combined electrical output of 2,420 kW. The self generated electrical power will displace a portion of the power that is currently purchased from the electric utility.

The exhaust from the gas turbines will be routed to two exhaust waste heat boilers to produce steam. This steam will then be used to displace steam currently produced by existing boilers, thus reducing the fuel consumption by the existing boilers. Excess steam produced in the summer will be used to produce chilled water from the two new 1,000 ton absorption chillers.

The recipient has stated that "The installation of the proposed system will reduce environmental emissions both in the local area and on a regional basis. Although the total amount of natural gas that will be consumed on site will increase, the combustion efficiency of the new gas turbines is superior to the technology that is used by the older boilers. This will result in a net reduction of Nitrogen oxides as well as carbon monoxide and other parameters in the local area." The new turbines will use natural gas fuel more efficiently than the existing boilers. The new equipment is expected to meet or exceed EPA New Source Performance Standards.

The Michigan State Energy Office has assured that all necessary, site specific permits will be obtained prior to the installation of the new equipment in accordance with local, state and federal regulations. The recipient has stated that the proposed project will not expand the footprint of the existing building and no major construction or repairs of the building will be undertaken.

Michigan's Bureau of Energy Systems provides the following assurances with respect to awarding sub-grants under the Request for Proposal for Renewable Energy Activities in State Buildings and Facilities Grants. Michigan's State Energy Office shall not award sub-grants for Projects that would:

1. Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders;

2. Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators);
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; or
4. Adversely affect environmentally sensitive resources. Environmentally sensitive resources include, but are not limited to:
 - i. Property (e.g., sites, buildings, structures, objects) of historic, archeological, or architectural significance designated by Federal, state, or local governments or property eligible for listing on the National Register of Historic Places;
 - ii. Federally-listed threatened or endangered species or their habitat (including critical habitat), Federally- proposed or candidate species or their habitat, or state-listed endangered or threatened species or their habitat;
 - iii. Wetlands regulated under the Clean Water Act (33 U.S.C. 1344) and floodplains;
 - iv. Areas having a special designation such as Federally- and state-designated wilderness areas, national parks, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, and marine sanctuaries;
 - v. Prime agricultural lands;
 - vi. Special sources of water (such as sole-source aquifers, wellhead protection areas, and other water sources that are vital in a region); and
 - vii. Tundra, coral reefs, or rain forests.

Waste Stream Conditions

Michigan's State Energy Office shall obtain a waste management plan addressing waste generated by a proposed Project prior to the sub-grantee spending any funds for their Project. This waste management plan will describe the Sub-recipient's plan to dispose of any sanitary or hazardous waste (e.g., construction and demolition debris, old light bulbs, lead paint, lead ballasts, piping, roofing material, discarded equipment, debris, and asbestos) generated as a result of the proposed Project. Michigan's State Energy Office shall make the waste management plan and related documentation available to DOE on DOE's request (for example, during a post-award audit). Michigan's State Energy Office shall ensure through specific contract terms that the Sub-recipient complies with all Federal, state and local regulations for waste disposal.

NHPA Conditions

Prior to awarding a sub-grant for a Project, Michigan's State Energy Office and the Sub-recipient shall comply with Section 106 of the National Historic Preservation Act (NHPA). If applicable, the Sub-recipient must contact the State Historic Preservation Officer (SHPO), and the Tribal Historic Preservation Officer (THPO). Michigan's State Energy Office shall retain sufficient documentation, from the Sub-recipient or other sources, to demonstrate that the Sub-recipient has received required approval(s) from the SHPO or THPO for the Project. Michigan's State Energy Office has entered into an Interagency Agreement (copy attached) with the State Historic Preservation Office to screen potential grantees for compliance with Section 106 of the NHPA. Michigan's State Energy Office shall make this documentation available to DOE upon request (for example, during a post award audit).

Based on the information provided by the State and recipient, the work outlined is consistent with activities identified in Categorical Exclusion B5.1.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

DOE's funding of this project has not been finalized as the State has not received final bids for the work outlined. Inhouse State estimates place the total cost in the area of \$11-million. The project officer is assuming we'll not contribute any more than 50% of the total cost. Unless the scope of this effort changes significantly, a change in funding (estimated at approximately 50% of the total project cost) will not affect my determination.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: 6/3/10

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON: