PMC-EF2a

(2.06.02)

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

RECIPIENT: Daemen College

STATE: NY

PROJECT TITLE : Daemen Alternative Energy/Geothermal Technologies Demonstration Program Erie County

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
N/A	DE-FG36-08GO088021/001	GFO-10-525	GO88021

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.

B3.1 Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to:

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:

Daemen College would demonstrate the potential geothermal resource on campus in Amherst, NY. In Phase I, Feasibility and Preliminary Design for a ground source heat pump system for the campus library (Marian). In Phase II, Installation and Commissioning of Equipment would take place. Phase III would include data collection and marketing. The project would be divided into three phases with multiple tasks.

PHASE I (Feasibility and Preliminary Design)

Daemen College is proposing to use federal funding to install a ground source heat pump system on the college campus in Amherst, NY, that would serve as a more energy efficient heating and cooling system for the campus library (Marian).

Task 1.1) Technical Assistance Study for HVAC Retrofit using ground source energy.

Task 1.2) Develop preliminary engineering design and drawings

PHASE II (Drilling/Installation and Commissioning of Equipment)

Task 2.1) Drill, Procure, and install equipment; Renovate building for installation of geothermal technologies

The ground source heat pump system would be an open loop system with a capacity of ~137 tons using water. There would be six boreholes (two production and four injection holes) located on campus west of the library. The state certified and licensed driller would follow International Ground Source Heat Pump Association (IGSHPA) regulations during installation. The casings would be sealed to prevent the risk of surface contamination of ground water. Borehole depths are estimated to be 80-150' deep. The six geothermal wells would be located on campus just west of the Marian Library. The injection wells would be registered with the EPA. Permits are in place for well construction, new ductwork, and piping. The work would be inspected by city and university inspectors.

Task 2.2) Compile and report data on capital costs.

PHASE III: Operation, Data Collection, and Marketing

Task 3:1: Operation and Data Collection

Task 3:2: Marketing

The college has consulted with SHPO and received a determination of no effect on 3/28/2011. According to data

gathered by DOE, there are no expected adverse effects to threatened and endangered species, wetlands, floodplains, or cultural resources as a result of the proposed project.

After a thorough review of the information submitted for the proposed project, it has been determined that the proposed action will not have a significant impact to human health and/or the environment. The proposed project will result in a reduction in the use of conventional fossil fuels; therefore it is hereby Categorically Excluded B5.1, "actions to conserve energy," from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

This EF2A was written by Christopher Carusona

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 5/2/11

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