PMC-EF2a

(2.04.02)

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

RECIPIENT: Roberts Wesleyan College **STATE:** NY

PROJECT TITLE : Geothermal Energy Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-EE0000322	DE-EE0000322	GFO-0000322-002	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.

B5.19 Ground source heat pumps

The installation, modification, operation, and removal of commercially available smallscale ground source heat pumps to support operations in single facilities (such as a school or community center) or contiguous facilities (such as an office complex) (1) only where (a) major associated activities (such as drilling and discharge) are regulated, and (b) appropriate leakage and contaminant control measures would be in place (including for cross-contamination between aquifers); (2) that would not have the potential to cause significant changes in subsurface temperature; and (3) would be located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rational for determination:

DOE is proposing to provide funding to Roberts Wesleyan College (RWC) and New York State to develop and demonstrate heating and cooling systems run by a geothermal source heat pump (GSHP). The applicant proposes to install a closed loop vertical ground source heat pump (GSHP) system at the Roberts Wesleyan College, Carpenter Hall, in Rochester, New York. DOE has completed a NEPA determination for Phase I - Preliminary Engineering and Design (GFO-10-524 on 7/26/2010). This NEPA determination is specific to Phases 2 and 3, where the applicant would install the GSHP system, operate and collect data for one year.

RWC is proposing to install and operate a 142 ton solar-assisted GSHP system. The horizontal-loop field for the system would cover an area of 24,350 square feet and would be installed next to Carpenter Hall. The horizontal loops would be installed by trenching with a spacing of 20 feet at an average depth of 3 feet. This is a closed-loop system that would use only potable water (no anti-freeze solution); would be installed below the water table zone with no proximity to any water wells. International Ground Source Heat Pump Association (IGSHPA) horizontal installation guidelines would be followed. After installation of the loop field, the area would be restored to its previous grade and condition. RWC would then collect data using building management system and show trends over 12 months.

The proposed site is a previously disturbed area adjacent to an existing building on campus. Due to the previous disturbance, DOE does not expect any impacts to threatened or endangered (T&E) species or (T&E) habitat. According to the New York State Office of Parks, Recreation, and Historic Preservation (SHPO), no cultural or historic resources would be adversely affected by this project. There are no surface waters, wetlands, or floodplains onsite and therefore no impacts to those resource areas are expected.

The total project cost: $1,975,026
DOE Share: $475,750
RWC Cost Share: $1,249,276
NY State Cost Share: $250,000

Funding subject to this NEPA determination: $1,834,394.75

DOE: $416,575.25

RWC cost share: $1,167,818.50
NY State Cost Share: $250,000

Funding related to previous NEPA determination (GFO-10-524): $140,631.25
DOE Share: $59,173.75
RWC Cost Share: $81,457.50

This project comprises planning and design, installation of a ground source heat pump system; CX A9, B5.19 apply.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

EF2A by Christopher Carusona II

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 1/19/2012
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