PMC-EF2a

(2.04.02)

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

RECIPIENT: Town of Oyster Bay **STATE:** NY

PROJECT TITLE : EECBG- Energy Efficiency Retrofits for Littauer Property Barn Complex

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013			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:

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.

A11 Technical advice and planning assistance to international, national, state, and local organizations.

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.

Rational for determination:

The Town of Oyster Bay is proposing to use ARRA funds provided by DOE to install a 17.5 ton, vertical closed-loop ground source heat pump (GSHP) system as part of an education and energy conservation demonstration facility. The geothermal system will be used in conjunction with a 119 Gallon Tank Heat Exchanger , photovoltaic-driver heat pump, a surge tank, and radiant concrete slabs and walls for direct heating and cooling of the walls and floors of existing complex buildings.

The well field will be located in an existing 1.0 acre field west of the Barn Complex and Residence Building. The wells for the GSHP system will consist of 8 to 9 boreholes at approximately 280 feet deep. A test borehole will be drilled and a 48 hour supervised test run will be performed prior to installation of the wells. The installation of the boreholes will be drilled by a state licensed or certified driller. All boreholes will be grouted in a thermally enhanced bentonite grout that is designed to withstand cracking from the changes in temperature between the ground and the heat exchange pipe. This ensures that the area around the borehole is sealed to keep any surface runoff from contaminating ground water. The system will employ PEX piping made of cross-linked high density polyethylene pipe that is heat fused at the joints which greatly minimizes the risk of leaks in the system preventing possible contamination of soil and ground water resources. The proposed system will employ potable water as the heat exchange fluid. Surface water will not be affected by the geothermal field, and the geothermal potable water fluids will be separated from surface and process water to avoid comingling and contamination.

During installation of the GSHP system, the grantee has committed to comply with all New York State Erosion and Sediment Control guidelines outlined within the New York State Design Manual. Silt fencing and filter fabric will be utilized along the perimeter of disturbed areas to contain sediment on site and to prevent stormwater runoff from potentially transporting sediment off-site. Disturbed and displaced clean soil will be transported and redistributed on-site for landscaping activity. The soil will be stabilized as required by New York State engineering design standards. The existing grass slope will be retained and protected which will also serve to slow potential stormwater runoff velocity and will maintain drainage capacity on-site.

In 2007 via the State's Environmental Quality Review Act study conducted by the Town of Oyster Bay Environmental Control Commission prior to the purchase of the existing property, the study concluded that that no threatened and/or endangered species, wetlands, and floodplains will be impacted by the project activities.

An archeo-sensitive data map was prepared and reviewed for this project. The geothermal well field and project site

area fall outside the bounds of the archeo-sensitive area. The buildings of the property are undergoing repair and restoration (not federally funded) however, they are not listed on the National and/or State Historical Register and are currently not considered eligible. Therefore, the geothermal installation will have no significant impact upon a sensitive historic and/or archeological site.

After a thorough review of the information submitted for the proposed project, it has been determined that the proposed project will not have a significant impact to human health and /or the environment. Therefore the proposed project is hereby Categorically Excluded under A9 "information gathering and analysis," A11, " Technical advice and planning assistance to international, national, state, and local organizations," and 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 :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/28/10

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