

PMC-EF2a

(20102)

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



RECIPIENT: Town of Brookhaven

STATE: NY

PROJECT**TITLE :**

EECBG - Brookhaven (NY): Ground Source Heat Pump -- EECBG - ARRA

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013	DE-EE0000688	GFO-0000688-001	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.

Rational for determination:

The Town of Brookhaven is proposing to use EECBG ARRA funding to install a ground source heat pump system that will serve the heating and cooling needs for a 12,000 sf single story building with a 3,000 sf basement being constructed. The ground source heat pump system will be a vertical, open-loop system with a capacity of 54 tons.

One supply well has been drilled using private funds and will not be reviewed as part of this determination. This NEPA determination is a review of the second supply well and two injection wells that are needed to complete the ground source heat pump system. The state certified and licensed driller will follow IGSHPA and NGWA regulations during installation. The well casings shall be installed and grouted per the NGWA and State standards sealing them from potential water intrusion. The proposed system will use ground water as the refrigerant. It is required by the Town that the entire site of the proposed building and site work follow the NYS Standards for Erosion and Sediment Control. The wells are proposed in areas to receive topsoil and grass seed. Drilling spoils are the only expected waste from the project and will be re-used on-site when possible or taken to the appropriate landfill. Sand bags and/or compost filtration would be utilized to control erosion as well as drilling spoils. The recipient has applied to the NYS Department of Environmental Conservation Division of Water using the application for a Long Island Water Well regarding the two supply wells and two injection wells and has received the necessary permits for all four wells. DOE communicated with an Environmental Program Specialist at the New York State Dept. of Environmental Conservation's Division of Water, Region 1 office, and concurs with their assessment that the proposed wells will not have a significant impact on ground water resources.

The geothermal well for the proposed system will occur in a location that was previously cleared and excavated for the new building. No new disturbance will occur due to the GSHP system. The proposed project location is in a highly developed and populated residential area of Brookhaven. There are not expected to be any adverse effects to threatened and endangered species, wetlands, floodplains, or cultural resources as a result of the proposed project as these resources do not exist at the project site.

After a thorough review of the information submitted for the proposed project, it has been determined that the actions involved 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 Categorical Excluded B5.1 "actions to conserve energy," from further NEPA review.

NEPA PROVISION

Note to Specialist :

EF-2a completed by Logan Sholar

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: _____

10/20/10

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: _____