

PMC-EF2a

(20102)

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



RECIPIENT: Illinois Department of Commerce &amp; Economic Opportunity

STATE: IL

**PROJECT  
TITLE :**

Champaign Unit 4 School District; Bottenfield Elementary School - GSHP Project

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000052	EE0000119		EE119

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 State of Illinois will provide \$138,000 in Recovery Act funds to Champaign Unit 4 School District to install a ground source heat pump (GSHP) system in the Bottenfield Elementary School. The system is projected to have a capacity of 138 tons, sufficient to replace the current unit ventilator and boiler system.

The borefield will be on school grounds. The grounds consist of lawns in close proximity to schools in an urban environment. Work shall include, but is not limited to, backfilling, soil compaction, seeding, and general restorations to previous conditions.

At present, engineers estimate the need for 130 to 200 bore holes that will be drilled to a depth of 275 feet. The work is to be conducted by a state licensed and/or certified driller. The boreholes will be grouted in a thermally enhanced bentonite grout designed to withstand cracking from the changes in temperature, will employ high density polyethylene pipe that is heat fused at the joints to minimize the risk of leaks, and will use a refrigerant that is a non-toxic potable water/propylene glycol mixture.

Construction permits will be submitted with the Regional Office of Education (ROE) for Champaign County. Waste materials will be disposed in accordance with local regulations. An analysis of the affected area indicates an absence of surface and/or subsurface hydrology. The surrounding residential drinking water supply is municipally provided by Illinois American Water.

Based on 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 :

According to the project officer, funding for this project is \$138,000. Unless there is a significant change in scope, a change in funding will not affect my determination.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: \_\_\_\_\_  
NEPA Compliance Officer

Date: 5/20/10

**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: \_\_\_\_\_