

PMC-EF2a

(2.04.02)

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



RECIPIENT: IL Department of Commerce & Economic Opportunity

STATE: IL

PROJECT

TITLE : Lake Land College; Lake Land College Geothermal Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	EE0000119	GFO-10-463	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 \$280,000 in Recovery Act funds to Lake Land College to help cover the costs associated with installing a vertical, closed loop ground source heat pump system on the college campus. The college is located at 5001 Lake Land Blvd., Mattoon, IL.

The ground source heat pump system will supply heating and cooling for three of the six main buildings on campus. The funding will also be applied to the purchase of new HVAC equipment in the three buildings. The 269-ton system will provide 98-tons of heating and cooling capacity to the Northwest building, 73-tons to the Learning Resources Center, and 98-tons to Webb Hall.

The recipient has assured the State and DOE that the contractor will be licensed and will follow IGSHPA Association guidelines for ground source heat pump installation and drilling. The boreholes will be grouted with a thermally enhanced bentonite grout designed to withstand cracking from temperature changes. The system will use a high density polyethylene pipe that is heat fused at the joints to minimize the risk of leaks and a non-toxic refrigerant that is a 10% mixture of propylene glycol and potable water. Only standard construction and well drilling permits from the City of Mattoon are required for the installation work. Silt fences and other erosion control measures are to be in place during construction. The areas disrupted during construction are to be returned to their original conditions. To the extent possible, the waste material generated from the drilling process is to be re-used on site.

The surrounding area is active agricultural land. DOE has determined that there little likelihood of adverse effects to threatened and endangered species or cultural resources from the installation of the system. Analyzing the National Wetland Inventory on the EPA's NEPAAssist, the reviewer has concluded that there are no floodplains or coastal zones in proximity to the proposed site location. The proposed site location is 0.3 miles from the nearest wetland providing an ample buffer against any adverse effects from the installation of the system.

DOE is aware that Lakeland College has also requested Recovery Act funding for a separate project that involves the installation of two, 100kW wind turbines. The turbines are being sited at a different location on campus, significantly removed from the ground source heat pump system. DOE has determined that no significant impacts are likely to be caused by the installation of the geothermal well field; therefore there is little likelihood of significant, cumulative impacts created by the construction and operation of the wind turbines and construction and operation of the ground source heat pump system.

After review of the information submitted 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 \$280,000. Unless there is a significant change in the scope of this effort, 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: 6/24/10

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: _____