PMC-EF2a
(2.04.02)

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

RECIPIENT: Oklahoma Department of Commerce **STATE:** OK

PROJECT TITLE : DE EE 0000922 Warr Acres Ground Source Heat Project w/HVAC retrofit

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE FOA 0000013	DE EE 0000922		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 Warr Acres is proposing to use $214,136 for the Adminstration Building Complex and $139,208 for the Community Center to replace windows; increase attic insulation to R40; replace lights; and upgrade the existing HVAC system. The EECBG funding will also be used to install ground source heat pump systems at the Administration Building Complex and the Community Center.

The ground source heat pump system at the Administration Building Complex will be a vertical, closed loop system with a capacity of 48 tons. There will be 24 boreholes needed covering 9,600 square feet. The system installer is required by the city to be IGSHPA certified and will follow IGSHPA and NGWA regulations during installation. The heat exchange system fabricator is required by the city to have completed training for heat fusing HDPE pipe. The system will use HDPE piping that is heat fused and all wells will be fully grouted with a thermally enhanced bentonite grout. The system will be flushed and pressure tested for 30 minutes to check for leaks before it is covered. The refrigerant used in the system will be potable water. The well field contractor is responsible for removal of "drilling mud" waste and disposing of per EPA and municipal requirements. Erosion control measures will be in place throughout duration of the well field installation as required by the municipality. The site will be re-sodded with grass of the same variety already existing on site. The contractor will be required to obtain a building permit by the City of Warr Acres. No other permits will be required.

The ground source heat pump system at the Community Center will be a vertical, closed loop system with a capacity of 28 tons. There will be 14 boreholes needed covering 14,500 square feet. The system installer is required by the city to be IGSHPA certified and will follow IGSHPA and NGWA regulations during installation. The heat exchange system fabricator is required by the city to have completed training for heat fusing HDPE pipe. The system will use HDPE piping that is heat fused and all wells will be fully grouted with a thermally enhanced bentonite grout. The system will be flushed and pressure tested for 30 minutes to check for leaks before it is covered. The refrigerant used in the system will be potable water. The well field contractor is responsible for removal of "drilling mud" waste and disposing of per EPA and municipal requirements. Erosion control measures will be in place throughout duration of the well field installation as required by the municipality. The site will be re-sodded with grass of the same variety already existing on site. The contractor will be required to obtain a building permit by the City of Warr Acres. No other permits will be required.

The geothermal well fields for both the Administration Building Complex and the Community Center will be installed in open, mowed grass areas directly adjacent to the buildings and parking lots. The areas surrounding the proposed geothermal well field locations are dense, residential areas. 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.

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 Categorically Excluded B5.1 "actions to conserve energy," from further NEPA review.

NEPA PROVISION

Insert the following language in the award:

You are required to:

Prior to the expenditure of Federal funds to implement any of the above activities, the City of Warr Acres has the affirmative responsibility to ensure they are in compliance with Sec. 106 of the National Historic Preservation Act (NHPA), consistent with DOE's 2009 letter of delegation of authority regarding the NHPA. If applicable, the sub-recipient must contact the State Historic Preservation Officer.

The recipient is required to obtain the necessary permits regarding all actions involved with the proposed project.

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 9/7/10

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