

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 :** EECBG City of Woodward, OK GSHP Project Beyond State Template

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000013	DE-EE0000922	GFO-0000922-007	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 City of Woodward is proposing to use EECBG ARRA funding to install a ground source heat pump system that will serve the heating and cooling needs for the new Woodward Conference Center. The ground source heat pump system will be a vertical, closed loop system with a capacity of 34 tons. There will be 40 boreholes needed covering 10,000 square feet. The state certified and licensed driller will follow IGSHPA and NGWA regulations during installation. The system will use HDPE piping that is heat fused and all wells will be fully grouted with a thermally enhanced bentonite grout. The refrigerant used in the system will be a non-toxic, food grade propylene glycol and water mixture. A notice of intent for storm water discharges associated with construction activity on sites of one acre or more has been submitted to the Oklahoma DEQ. Authorization to discharge from the site will be under the Oklahoma Pollutant Discharge Elimination System Act (OPDES) and a Storm Water General Permit for Construction Activities, Permit No. OKR10. A Storm Water Pollution Prevention Plan has been prepared for the construction site and is available at the construction site and at the Engineer's office. The wellfield site will be graded and incorporated into the landscaping for the new conference center.

The geothermal well field portion of the installation will occur in an area that has been cleared and graded as part of the recent construction of the Woodward Conference Center. This area was previously actively used pasture land. The area surrounding the proposed project location is expanding residential development and active agricultural land. 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: 11/1/10

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

88.1. 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, contractors, designers, organizations (such as utilities), and state and local government. Covered actions include, but are not limited to: programming, financing, or treatment of placement of filters on hot water heating, refrigeration, air conditioning, and water systems; installation of efficient lighting; investments in general energy efficiency audits; development of energy-efficient manufacturing or industrial processes; and other energy conservation and energy efficiency measures and development and other projects. The action could involve building, operations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include: management, standard-setting, or proposed DOE regulation.

Rationale for determination:  
The City of Woodward is proposing to use ESCO BARRA funding to install a ground source heat pump system that will serve the heating and cooling needs for the new Woodward Conference Center. The ground source heat pump system will be a vertical closed loop system with a capacity of 24 tons. There will be 40 boreholes needed covering 10,000 square feet. The site drilled and logged data will follow IGSRPA and NQWA regulations during installation. The system will use HDPE piping that is heat treated and all wells will be fully grouted with a thermally enhanced Portland cement. The refrigerant used in the system will be a non-toxic, food grade propane glycol and water mixture. A notice of intent for mine water discharge associated with construction activity on site of one acre or more has been submitted to the Oklahoma DOW. An application to discharge from the site will be under the Oklahoma Pollution Discharge Elimination System Act (OPDES) and a Storm Water General Permit for Construction Activity Permit for OPDES. A Storm Water Pollution Prevention Plan has been prepared for the construction site and is available at the construction site and at the Engineer's office. The wellhead site will be graded and incorporated into the landscaping for the new conference center.

The applicant will field portion of the installation will occur in an area that has been cleared and graded as part of the recent construction of the Woodward Conference Center. This area was previously actively used pasture land. The area surrounding the proposed project location is expanding residential development and active agricultural land. 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 the environment. The proposed project will result in a reduction in the use of conventional fossil fuels; therefore it is hereby Categorical Exclusion 88.1 actions to conserve energy, from further NEPA review.