PMC-EF2a

(2.04.02)

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

**RECIPIENT:** Department of Natural Resources **STATE:** MO

**PROJECT TITLE :** Energize Missouri Homes - Bradeen and Brown

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|---|---|---|
| DE-FOA-000052 | EE0000131 | GFO-0000131-009 | EE131 |

**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 Missouri Department of Natural Resources (DNR) proposes to provide up to $20,000 of SEP funds for the installation of two residential ground source heat pumps. This determination is for the following projects:

1. Gary Brown – 16330 HH Highway, Platte City, MO 64079
The Missouri DNR is proposing to provide Mr. Brown up to $10,000 to install a ground source heat pump (GSHP) system and insulate and weather-proof his existing residence. The horizontal, closed-loop GSHP system has a heating and cooling capacity of 6-tons and would be installed in a pasture adjacent to the existing residence. Ground disturbance would include six trenches approximately 130ft long, 3ft wide, 5ft apart, and 6ft deep.

2. Tim Bradeen – 9580 NW Baker Road, Kansas City, MO 64153
The Missouri DNR is proposing to provide Mr. Bradeen up to $10,000 to install a horizontal, closed-loop 6-ton GSHP system and a 2-ton horizontal, closed-loop GSHP system adjacent to his existing residence. Ground disturbance would include 3 trenches approximately 400 feet long, 7 inches wide, and 7 feet deep and spaced 10 feet apart.

The exchange fluid for these projects is a mixture of potable water and propylene glycol or Environol. The area of disturbance is less than one acre for each individual project. The contractors installing the GSHPs would be certified and follow IGSHPA guidelines.

All waste generated by these projects would be disposed of in accordance with all applicable regulations. Non-hazardous waste would be recycled or disposed of at an authorized land fill.

The US Fish and Wildlife Service – Ecological Service Office in Columbia, MO has reviewed all three projects and determined there is no suitable habitat for threatened and endangered species and no impacts are expected.

The Missouri SHPO has determined that no historic properties would be adversely affected by any of the proposed projects.

The US Fish and Wildlife's on-line mapping tool was used to determine that none of the properties are located in a wetland or floodplain. Erosion would be controlled on all projects and the area returned to its original condition.

There are five typical geologic and hydrologic characteristics associated with the sensitive karst environment in Missouri: sink areas, sink holes, caves, springs and losing or gaining streams. The Missouri DNR on-line GIS mapping tool was used to determine whether any of the projects are located in a karst region. Neither the Brown nor Bradeen

projects are located in an area associated with potentially sensitive karst environments.

All supporting documentation is attached in the PMC.

DOE has reviewed the information for the proposed projects and determined that these projects do not pose a significant impact to human health and/or environment. Therefore these projects are Categorically Excluded under B5.1 "Actions to Conserve Energy".

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

EF2a prepared byChris Paulsen.

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

NEPA Compliance Officer Signature: _____ Date: 5/9/11

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