PMC-EF2a
(2.04.02)

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

RECIPIENT: Loudoun County **STATE:** VA

PROJECT TITLE: EECBG Funded Projects - SOW (S)

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-EE0000868			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.

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

A11 Technical advice and planning assistance to international, national, state, and local organizations.

Rational for determination:

The projects listed within this EF-1 include: Scott Jenkins Memorial Park LED lights, Education and outreach to business and residents, Building Standards and Energy Performance Labeling, the Energy improvements as part of the Loudoun County Home Improvement Program, the Town of Purcellville LED Streetlight program and the installation of an estimated 10kW photovoltaic panel system on the roof of the Loudoun County Youth Shelter are bounded by the signed SOW and are therefore categorically excluded under NEPA.

The installation of the GSHP system falls outside the bounds of the signed SOW, therefore the NEPA determination for this project is set forth below. Loudoun County is proposing to use ARRA funds provided by DOE to install a ground source heat pumps (GSHP) heating and cooling system for two new buildings of an existing Youth Shelter. The GSHP system will be a vertical closed loop system. The boreholes for the geo-thermal system will consist of a total of 19 boreholes averaging 249 to 274 feet deep. Fifteen boreholes for the Youth Center dormitory will be located under an existing parking lot and four boreholes for the dining hall will be located under a new basketball court. Loudoun County verified that a state licensed or certified driller will be used for installation of boreholes. All boreholes will be grouted in a thermally enhanced bentonite grout that is designed to withstand cracking from the changes in temperature between the ground and the heat exchange pipe. This ensures that the area around the borehole is sealed to keep any surface runoff from contaminating ground water. Potable water will be used through a heat exchanger. A Loudoun County health permit is required and will be obtained for the geothermal wells on site. Also, the recipient verifies that all applicable state environmental permitting, reviews, and approvals will be obtained for this project.

The recipient verified that a waste management plan is in place and mitigation and erosion control methods will be implemented during construction for protective measures. All storm water will be treaded in one or two best management practices (BMPs) located on a site adjacent to the project. Loudoun County Erosion and Sediment control standards, such as super silt fences, will be used. The recipient is attempting a U.S. Green Building Commission (USGBC) Leadership in Energy and Environmental Design (LEED) Silver designation or higher and will design the surrounding environs to that standard. Adherence to the USGBC LEED process will emphasize minimization of construction debris and waste. Also, public water and sewer systems control drinking water and disposal, therefore the drilling of boreholes will not affect public drinking water. A GIS study conducted on the proposed project location using NEPAssist indicated no wetlands in the vicinity of the project location. The project location is in a suburban environment and a review of data from the Virginia Field Office of the U.S. Fish and Wildlife Service indicates there are no documented federally endangered, threatened, proposed and candidate species in the

area.

After a thorough review of the information submitted for the proposed project, it can be concluded that the project will not have an significant impact to human health and/or the environment. Therefore the proposed project is hereby Categorically Excluded under A9 "information gathering, analysis, documentation, dissemination, and training," A11 "Technical advice and planning assistance to organizations," and B5.1 "actions to conserve energy," from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/20/10

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