

PMC-EF2a

(10402)

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



RECIPIENT: VA Dept of Mines, Minerals and Energy

STATE: VA

**PROJECT TITLE :** EECBG - Geothermal Energy Demonstration for Organic Produce Packing Facility

**Funding Opportunity Announcement Number**    **Procurement Instrument Number**    **NEPA Control Number**    **CID Number**  
 DE-FOA-0000013    DE-EE0000864    *GFO-0000864-005*    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:

Scott County is proposing to use \$117,500 in EECBG ARRA funding to install a ground source heat pump system that will serve the heating and cooling needs for the 15,000 square foot Appalachian Harvest Packing and Grading facility. The ground source heat pump system will be a vertical, closed loop system with a capacity of 38 tons. There will be 24 boreholes needed covering 5,600 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. Drilling spoils are the only expected waste from the project and will be re-used on-site when possible or taken to the appropriate landfill. The site will be re-seeded with grass of the same variety already existing on site. A Commonwealth of Virginia Geothermal closed loop well permit is required and will be obtained. The recipient has obtained an Erosion and Sediment Control screening Form (Project File # 1137) as required by the Scott County Soil & Water Conservation District. As per the Scott County building code the recipient is required to obtain a Building Permit from Scott County as well as a Well Permit from the Health Department.

The geothermal well field portion of the installation will occur in a mowed, grassy lawn directly adjacent and on the north east side of the building between the building and Boone Trail Rd/State Route 772. The area surrounding the proposed project site is comprised mainly of other industrial sites and several active agricultural fields. 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 Categoricaly Excluded B5.1 "actions to conserve energy," from further NEPA review.

**NEPA PROVISION**

Note to Specialist :

EF-2A was completed by Logan Sholar

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**NEPA Compliance Officer Signature: Date: 10/5/10