

PMC-EF2a

(2014.02)

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



RECIPIENT: Oklahoma Municipal Power Authority

STATE: OK

PROJECT TITLE : OKLAHOMA SEP ARRA - OMPA OCP Large System Rebate Request B

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000133	GFO-10-499-001	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 Oklahoma Department of Commerce (ODC) is proposing to fund the Oklahoma Comfort Program (OCP) through their sub-grantee the Oklahoma Municipal Power Authority (OMPA). Smith Tools has been awarded \$80,000 through the OCP and is proposing to use the funding to install a ground source heat pump system that will serve the heating and cooling needs for the Smith Tools manufacturing facility. The ground source heat pump system will be a vertical, closed loop system with a capacity of 80 tons. There will be 42 boreholes needed, drilled to a depth of 410 feet and covering an area of 28,800 square feet. Actual ground disturbance as a result of the proposed project will be less than .25 acres. The state certified and licensed driller will follow IGSHA 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. All loops will be pressure tested before and after installation. Approximately six cubic yards of fine, uncontaminated, sandstone spoils will be generated in drilling the boreholes. The spoils will be spread across the existing landscaping. Lawn sod will be removed and replaced. A permit will be filed with the City if the rebate is approved. The boreholes will be registered with the State.

The geothermal well field portion of the installation will occur in a mowed, grassy lawn area immediately to the south of the building complex between the building and a road. The proposed project location is in an industrial park adjacent to the regional airport. There are residential areas within a mile of the proposed project. The system will not come in contact with drinking water, water bodies, water tables, or aquifers. Areas containing karst topography and related federally listed species in Oklahoma have been identified, and the proposed project will not occur in proximity to those resources. 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 required by the OK SEO, installation of ground source heat pumps cannot commence at any proposed OCP installation site until State Historical Preservation Office (SHPO) approval has been received. OMPA must submit information about all prospective GHP installation sites to the Oklahoma State Energy Office (SEO) for review by SHPO. Under a Programmatic Agreement with SHPO, OK SEO can approve sites with buildings that are less than 45 years old; this review may take a few days. For buildings 45 years old or older, SEO must submit details to SHPO for review; this review process may take up to a month (or more).

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.

