

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



RECIPIENT: City of Oregon, Ohio

STATE: OH

PROJECT TITLE : Municipal Building Geothermal and HVAC - City of Oregon, Ohio

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA0000148 (EECBG Competitive)	DE-EE0003566	GFO-0003566-001	GO

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:

<b>A9 Information gathering, analysis, and dissemination</b>	Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)
<b>B2.1 Workplace enhancements</b>	Modifications within or contiguous to an existing structure, in a previously disturbed or developed area, to enhance workplace habitability (including, but not limited to, installation or improvements to lighting, radiation shielding, or heating/ventilating/air conditioning and its instrumentation, and noise reduction).
<b>B5.19 Ground source heat pumps</b>	The installation, modification, operation, and removal of commercially available smallscale ground source heat pumps to support operations in single facilities (such as a school or community center) or contiguous facilities (such as an office complex) (1) only where (a) major associated activities (such as drilling and discharge) are regulated, and (b) appropriate leakage and contaminant control measures would be in place (including for cross-contamination between aquifers); (2) that would not have the potential to cause significant changes in subsurface temperature; and (3) would be located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rational for determination:

The City of Oregon, Ohio (City) would use DOE and cost share funding to finance and install a vertical closed-loop Ground Source Heat Pump (GSHP) for the City's Municipal Building. The current system would be upgraded from conventional natural gas electric to geothermal using a high technology ground heat-exchanger. The Municipal Building would further make use of active induction equipment for reasons of low maintenance and minimum operational cost. The 84 ton system would service an interconnected series of buildings collectively known as the City Municipal Building that house the City Administration Offices, Municipal Services, Oregon Municipal Court, Council Chamber, Police Department and a Community Room.

Drilling of the borefield (20 boreholes to a depth of 400 feet) would occur adjacent to a road within an area that has previously been farmed, landscaped, excavated and paved. The site is not located in or near a floodplain, wetland, or coastal zone. The site would be restored to previous grade and the area would be resodded after construction. Installation of the boreholes would be in accordance with IGSHPA recommendations for closed-loop systems and State of Ohio regulations for water well drilling using State licensed drilling companies. A trench approximately 400 feet long and two feet wide would be excavated to run supply and return lines to the Municipal Building. The total disturbance area for the borefield and trenching would be approximately 0.1 acre. The closed-loop system would utilize municipal water with propylene glycol added as an antifreeze solution (10% ratio) which would be pressure/leak tested prior to commissioning. No historic building would be affected by the proposed project activities.

Based on review of the project information, DOE has determined that due to the previously disturbed nature of the area and the short-term timeframe of the construction of the GSHP system and replacement of the existing HVAC system, project activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that these activities are consistent with actions contained in DOE categorical exclusions A9 "Information gathering, analysis, and dissemination," B2.1 "Workplace enhancements," and B5.19 "Ground source heat pumps," and is categorically excluded from further NEPA review.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award



Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

Casey Strickland 6/17/2013

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

NEPA Compliance Officer Signature:   
NEPA Compliance Officer

Date: 6/17/2013

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