

PMC-ND

(1.08.09.13)

**U.S. DEPARTMENT OF ENERGY**  
**OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY**  
**NEPA DETERMINATION**

**RECIPIENT:**City of Wyandotte, Municipal Services**STATE:** MI**PROJECT****TITLE :**

Wyandotte Integrated Renewable Energy Strategy – WIRES 2

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-FG36-06GO86090	GFO-86090-004	GO86090

**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:**

**B5.19 Ground source heat pumps** 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.

**Rationale for determination:**

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Wyandotte Municipal Services (WMS) to install a ground source heat pump heating and cooling system at the Bacon Memorial District Library. The proposed activity is part of a larger effort to research, design and develop five, separate but inter-related, renewable energy and energy efficiency projects that would reduce the City of Wyandotte's environmental and energy impact and encourage businesses and citizens to adopt cleaner energy practices. Through a project titled, "The Wyandotte Integrated Renewable Energy Strategy – Wyandotte WIRES 2", WMS proposes to develop projects to include; community-scale micro-wind turbines, hybrid wind/solar technologies, LED powered municipal lights, electric vehicle (EV) charging stations for plug-in vehicles, an expanded geothermal heating and cooling district, and a job training program for energy efficiency and renewable energy technologies and a public and educational outreach program.

This award previously received three NEPA Determinations. GFO-06-078 (CX-A9, CX-B3.1 and C12; 6/21/2006) was for Phase 1 - Feasibility Study (CX-A9 and CX-B3.1) and Phase 2 – Construction (C12) activities related to a proposed wind power demonstration project. After completion of the Phase 1- Feasibility Study activities and a draft Environmental Assessment (EA) the project was re-scoped and the Phase 2- Construction activities of the wind power demonstration project were not completed. A second NEPA review (GFO-00086090-002; CX A9; 11/20/2013) was completed for the revised Statement of Project Objectives (SOPO) (DE-FG36-06GO86090.006) which included Phase 2 tasks and activities. That NEPA determination approved administrative and project management activities only. A third NEPA review (GFO-GO086090-003; CX B5.1; 03/07/2014) was completed for the installation of energy-efficient and low-maintenance LED streetlights and stadium lights (Phase 2 Task 1). This NEPA determination applies to the installation of a ground source heat pump heating and cooling system at the Bacon Memorial District Library at 45 Vinewood, Wyandotte, MI 48192, as well as any administrative activities in Task 3 that are associated with the installation of the ground source heat pump system.

The proposed project would include the installation of a 35 ton, vertical, closed loop ground source heat pump system to replace the existing heating and cooling system. The bore hole field would consist of 24 wells approximately 305' deep spaced at 20 feet on center totaling four rows of six wells per row, and would be located under the existing parking lot south of the Bacon Memorial District Library. The parking lot would be resurfaced after installation. The closed system would use propylene glycol as the heat exchange fluid. New heat pumps and ductwork would be installed in the basement of the home and new registers would be created in the floor/ceiling assembly to supply hot and cold air to the first floor. New heat pumps and ductwork would be installed in the attic of the home and new registers would be created in the floor/ceiling assembly of the second floor to supply hot and cold air to second floor. Drilling permits would be obtained by the selected drilling vendor. Electric and building permits would be obtained by

the respective selected vendors. The proposed project would occur in areas that have been previously disturbed; therefore, no adverse effects to threatened and endangered species, wetlands, floodplains or cultural resources are expected.

The Ford-Bacon House, in which the Bacon Memorial District Library is located, is listed on the National Register of Historic Places. The proposed project has been reviewed by the Michigan SHPO who has concurred with the DOE's determination that the project would have no adverse effect on the Ford-Bacon House (see attachment 15-295 NAE.pdf in PMC).

Based on review of the project information and the above analysis, DOE has determined the proposed project would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that this project is consistent with actions outlined in DOE categorical exclusion B5.19 "Ground source heat pumps" and is therefore categorically excluded from further NEPA review.

#### NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

All Phase 2 installation or ground breaking activities other than installation of the ground source heat pump system at 45 Vinewood, Wyandotte, MI 48192.

This restriction does not preclude you from:

Administrative and project management activities.

Installation of the ground source heat pump system at 45 Vinewood, Wyandotte, MI 48192.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

PMCO

This NEPA determination requires a tailored NEPA provision. Please see above.

Review completed by Logan Sholar on 6/1/2015

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

NEPA Compliance Officer Signature: \_\_\_\_\_

Electronically  
Signed By: Lori Gray

NEPA Compliance Officer

Date: 6/1/2015

#### 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: \_\_\_\_\_