

PMC-EF2a

(2.04.02)

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

**RECIPIENT:** Indiana Lieutenant Governor's Office, Office of Energy Development**STATE:** IN

PROJECT TITLE : EECBG Program: Small Business, Non-Profit and Higher Education Grant Program (subgrant): Greater Elkhart Chamber of Commerce Ground Source Heat Pump

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0000725.001	GFO-0000725-002	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 City of Elkhart is proposing to use EECBG ARRA funding to install a ground source heat pump system that will serve the heating and cooling needs for the Greater Elkhart Chamber of Commerce. The ground source heat pump system will be an open loop system with a capacity of 12 tons. There will be 3 boreholes needed, one supply well and two injection wells. All boreholes will be installed within the basement of the existing chamber building. The state certified and licensed driller will follow IGSHA and NGWA regulations during installation. Each borehole will be constructed with a screen at the bottom of the well, with suction so that sand stays below. The casing will be sealed to the floor (in the same manner a drinking well would be sealed) eliminating the risk of surface contamination of ground water. Borehole depth is estimated to be 30ft based on similar systems in the vicinity of the proposed project. The proposed system will use a far lower average amount of groundwater per minute than that which is required to be registered with the state; therefore, there will be no adverse effects to ground water levels. The injection wells will be registered with the EPA, but a permit will not be required. A permit will be required from the city regarding well construction, new ductwork and piping. The ground source heat pump installation will be inspected by the city building department heating inspector. The project has been approved by the City of Elkhart Public Works and Utility Services Department. DOE communicated with the head of the Water Rights & Use Section at Indiana DNR - Division of Water and concurs with their assessment that the proposed wells will not have a significant impact on ground water resources.

The geothermal well field portion of the installation will occur in the basement of the existing chamber of commerce building. The proposed project location is in downtown Elkhart surrounded by light commercial and residential areas. The city has consulted with SHPO and received a determination of no effect. 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 these resources do not exist at the project site.

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.

NEPA PROVISION

Note to Specialist :

EF-2a completed by Logan Sholar

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: _____

11/1/10

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: _____

The City of Elkhart is proposing to use EROG ARRA funding to install a ground source heat pump system that will serve the heating and cooling needs for the Elkhart Branch of Commerce. The ground source heat pump system will be an open loop system with a capacity of 12 tons. There will be 3 boreholes needed, one supply well and two injection wells. All boreholes will be installed within the basement of the existing Commerce Building. The state certified and licensed driller will follow IS-214-A and IS-214-B regulations during installation. Each borehole will be cased with a screen at the bottom of the well with screen as first sand stage below. The casing will be sealed to the floor in the same manner a drilled well would be sealed eliminating the risk of surface contamination of ground water. Borehole depth is estimated to be 300 based on similar systems in the vicinity of the proposed project. The proposed system will use a low average amount of groundwater per minute than that which is required to be regulated with the state. Therefore, there will be no adverse effects to ground water levels. The injection wells will be regulated with the EIA, but a permit will not be required. A permit will be required from the city regarding well construction, new outdoor piping. The ground source heat pump installation will be inspected by the city building department having inspection. The project has been approved by the City of Elkhart Public Works and Utility Services Department. DOE contacted with the head of the Water Rights & Use Section at Indiana DNR - Division of Water and concurs with their assessment that the proposed wells will not have a significant impact on ground water resources.

The groundwater well field portion of the installation will occur in the basement of the existing Commerce Building. The proposed project location is in downtown Elkhart surrounded by light commercial and residential areas. The city has consulted with SHRP and received a determination of no effect. 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 these resources do not exist at the project site.

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 BE-1 actions to conserve energy. From further NEPA review.

NEPA REVIEW
Date of Decision

BE-2a completed by Logan Smith