PMC-EF2a
(2.04.02)

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

RECIPIENT: Metro Nashville & Davidson County **STATE:** TN

PROJECT TITLE : EECBG Program Geothermal Technology Program: NABRICO (Nashville Bridge Co. Building) Revised

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-000013	DE-EE0000956.004	GFO-0000956-005	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:

Metro Nashville and Davidson County are proposing to use EECBG ARRA funding to install a ground source heat pump system that will serve the heating and cooling needs for the existing NABRICO building on the Cumberland Riverfront. The ground source heat pump system will be a vertical, closed loop system with a capacity of 65 tons. There will be 24 boreholes needed covering 9,600 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. The refrigerant used in the system will be a non-toxic, food grade propylene glycol and water mixture. The mechanical contractor will be responsible for encircling the site with a silt fence during the drilling of the wells. Any excess soils may be spread (not to exceed 6" in depth) and seed & sod will be added to promote re-vegetation. A standard Metro Mechanical Permit is required and will be obtained for the installation of the GSHP system. A Metro Storm water review will be required for the wells located within the flood plain.

The geothermal well field portion of the installation will occur in a mowed, grassy lawn area adjacent to the existing building. The proposed project location is in an area on the Cumberland River that was historically heavily industrialized. Currently, the proposed project and surrounding area is being developed as part of a larger plan to renovate the Riverfronts and is composed of large, maintained grassy areas. The NABRICO building is located within the 100 year flood plain. Any portions of the project within floodplain are subject to Metro's storm water regulations and will not impact flooding. The recipient consulted with TEMA which determined that the proposed project would not result in adverse effects to the floodplain. DOE has reviewed, and concurs with, the TEMA determination. The NABRICO building is eligible for the National Register of Historic Places and the proposed project has been submitted to the Tennessee Historical Commission for review. There are not expected to be any adverse effects to threatened and endangered species, or wetlands 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 Categorically Excluded B5.1 "actions to conserve energy," from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

EF-2a completed by Logan Sholar

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 11/1/10

NEPA Compliance Officer

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: _____ Date: _____

Field Office Manager