PMC-EF2a
(2.06.02)

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

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-00013	EE0000956.003		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.

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

Rational for determination:

The Metropolitan Government of Nashville and Davidson County plans to use $1,351,228 dollars to implement their Geothermal Technology Program. The program will retrofit four buildings in Nashville proper and in the surrounding suburban areas; The NABRICO building, Inglewood Library, Edgehill Library, and East Health Dept. However all four buildings are of historical significance and are eligible for Historical Status due to their locations within the Nashville Metro Area. However we (DOE) have consulted with the applicant to make them aware that SHPO consultation and review must be completed before project implementation can occur. The project proposer has provided NEPA with an assurance letter stating that they have already started consultation and will not implement the project until they have received a SHPO "no adverse affect" determination and/or Mitigated SHPO determination in which they must follow all stipulations outlined by the determination.

NABRICO (Nashville Bridge Co. Building)
The project is located on the Cumberland River on the shoreline directly adjacent to the Korean Veteran's Bridge. The project will retrofit the existing building with an 18 ton Ground Source Heat Pump and will be used to supplement the existing HVAC system. The project will consist of boring 9 holes at a depth TBD by the test boreholes and thermal conductivity testing, however based on knowledge of existing soil sampling in the area the depth is thought to be in a range of 300-400ft. The aquifer below the project will be impacted however it is not used for drinking water and because of the use of thermally enhanced grout and propylene glycol as an antifreeze solution any risk of leakage would have no adverse impact on the aquifer. The project will comply and follow all requirements and guidelines set forth by the IGSHP and NGWA for drilling, installation, and grouting. The well driller will be state licensed and certified. A "Metro Mechanical Permit" will be required for the installation and the project's proposer has commited to DOE that this will be obtained per-construction. The Contractor will install silt fencing around the boreholes for erosion controls. The contractor will re-spread filings (not to exceed 6") and will re-seed the area with seed and sod.

*- The project is located in a 100 year floodplain; however after an assessment conducted using FEMA's floodplain mapping the area is NOT is a "Special Flood Hazard Area". The applicant has provided the following commitment; "Any portions of the project within (the) floodplain are subject to Metro's storm water regulations and will not impact flooding. Floodplain portions will be compliant with all applicable local, state and federal storm water and floodplain regulations. It is anticipated that a "no-rise" certification will not be needed, but it will be obtained if necessary."

Inglewood Library

The project is located in a suburban area of Nashville; the project will service the Inglewood Library. The project will

retrofit the existing building with a 10 ton Ground Source Heat Pump and will be used to supplement the existing HVAC system. The project will consist of boring 5 holes at a depth TBD by the test boreholes and thermal conductivity testing, however based on knowledge of existing soil sampling in the area the depth is thought to be in a range of 300-400ft. The aquifer below the project may or may not be impacted however because of the use of thermally enhanced grout and propylene glycol as an antifreeze solution any risk of leakage would have no adverse impact on the aquifer. The project will comply and follow all requirements and guidelines set forth by the IGSHP and NGWA for drilling, installation, and grouting. The well driller will be state licensed and certified. A "Metro Mechanical Permit" will be required for the installation and the project's proposer has committed to DOE that this will be obtained pre-construction. The Contractor will install silt fencing around the boreholes for erosion controls. The contractor will re-spread filings (not to exceed 6") and will re-seed the area with seed and sod.
Edgehill Library

The project is located in a suburban area of Nashville; the project will service the Edgehill Library. The project will retrofit the existing building with a 10 ton Ground Source Heat Pump and will be used to supplement the existing HVAC system. The project will consist of boring 5 holes at a depth TBD by the test boreholes and thermal conductivity testing, however based on knowledge of existing soil sampling in the area the depth is thought to be in a range of 300-400ft. The aquifer below the project may or may not be impacted however because of the use of thermally enhanced grout and propylene glycol as an antifreeze solution any risk of leakage would have no adverse impact on the aquifer. The project will comply and follow all requirements and guidelines set forth by the IGSHP and NGWA for drilling, installation, and grouting. The well driller will be state licensed and certified. A "Metro Mechanical Permit" will be required for the installation and the project's proposer has committed to DOE that this will be obtained pre-construction. The Contractor will install silt fencing around the boreholes for erosion controls. The contractor will re-spread filings (not to exceed 6") and will re-seed the area with seed and sod.
East Health Department

The project is located in a suburban area of Nashville; the project will service the East Health Department Headquarters. The project will retrofit the existing building with a 20 ton Ground Source Heat Pump and will be used to supplement the existing HVAC system. The project will consist of boring 10 holes at a depth TBD by the test boreholes and thermal conductivity testing, however based on knowledge of existing soil sampling in the area the depth is thought to be in a range of 300-400ft. The aquifer below the project may or may not be impacted however because of the use of thermally enhanced grout and propylene glycol as an antifreeze solution any risk of leakage would have no adverse impact on the aquifer. The project will comply and follow all requirements and guidelines set forth by the IGSHP and NGWA for drilling, installation, and grouting. The well driller will be state licensed and certified. A "Metro Mechanical Permit" will be required for the installation and the project's proposer has committed to DOE that this will be obtained pre-construction. The Contractor will install silt fencing around the boreholes for erosion controls. The contractor will re-spread filings (not to exceed 6") and will re-seed the area with seed and sod.

It is with the actions outlined above that these projects are hereby determined not to have a significant impact on human health and/or environment and are therefore Categorically Excluded under A9 "Information Gathering" and B5.1 "Actions to Conserve Energy".

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/1/10

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON: