PMC-EF2a

(2.04.02)

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

RECIPIENT: City of Philadelphia, PA **STATE:** PA

PROJECT TITLE : Philadelphia (PA): Energy Loan to Community Legal Services for the Erie Avenue office

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013	EE0000927	GFO-0000927-004	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 Philadelphia is proposing to award $750,000 in EECBG funding to Community Legal Services to cover the incremental cost of purchasing energy efficient equipment and building materials, over traditional equipment and materials, for a new, LEED-certified, office building. The EECBG funding amount is 9% of the total cost of the $8.4 million project. The new building is one building away from the intersection of Broad Street and Erie Avenue, a dense, heavily developed urban setting. This intersection is the location of a major subway and bus transit hub. The building site is currently cleared and cleaned, but it has been the site of buildings for at least 90 years. The energy features of the new building include:

- Geothermal water loop heat pump system with high-performance heat pumps, along with a heat recovery wheel for reclaiming heat in exhaust air. The ground source heat pump system will be a vertical, closed loop system with a capacity of 40 tons. There will be 8 boreholes needed, drilled to a depth of 600ft and covering 3,000 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. Drilling spoils are the only expected waste from the project and will be re-used on-site when possible or taken to the appropriate landfill. Erosion during construction will be controlled by silt fencing, filter socks, inlet protection, and a rock construction entrance. An Erosion and Sedimentation Control Plan will be implemented. The geothermal well field portion of the installation will occur within the building footprint, a landscaped courtyard, and a paved sidewalk right of way. 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 are not present at the project site.
- Energy-efficiency lighting (0.84 watts/sf compared to ASHRAE standard of 1.0 watts/sf), with light shelves and other day lighting strategies, sensors to vary light output of fixtures based on ambient light levels and occupancy sensors.
- Solar water heating system for hot water needs.
- Green vegetative roof to delay air conditioning peak and to control peak electrical demand.
- A well-insulated building envelope (R-35 roof and R-21 exterior walls, windows with a u-value of 0.29), with sun screens for limiting glare and solar gain.

After a thorough review of the submitted information, it has been determined that the project will not have a significant impact to human health and/or environment. Therefore, the project has been categorically excluded under CX 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 :

EF2a completed by Logan Sholar

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 1/27/2011
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