PMC-EF2a
(20100)

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

RECIPIENT: TX STATE ENERGY CONSERVATION OFFICE **STATE:** TX

PROJECT TITLE : CITY OF HOUSTON WIND PROJECT

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000116	GFO-0000116-033	EE116

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:

B5.16 Solar photovoltaic systems
The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres 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.

B5.18 Wind turbines
The installation, modification, operation, and removal of a small number (generally not more than 2) of commercially available wind turbines, with a total height generally less than 200 feet (measured from the ground to the maximum height of blade rotation) that (1) are located within a previously disturbed or developed area; (2) are located more than 10 nautical miles (about 11.5 miles) from an airport or aviation navigation aid; (3) are located more than 1.5 nautical miles (about 1.7 miles) from National Weather Service or Federal Aviation Administration Doppler weather radar; (4) would not have the potential to cause significant impacts on bird or bat populations; and (5) are sited or designed such that the project would not have the potential to cause significant impacts to persons (such as from shadow flicker and other visual effects, and noise). 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. Covered actions include only those related to wind turbines to be installed on land.

Rational for determination:

The U.S. Department of Energy (DOE) provided funding to the Texas State Energy Conservation Office (SECO) under the DOE's American Recovery and Reinvestment Act of 2009 State Energy Program (SEP). SECO selected the City of Houston (Houston) to receive $900,000 in SEP funding (total project cost - $1,100,000).

Houston would use federal funding to partially fund the purchase and installation of four (4) 1 to 10 kW vertical axis, roof-mounted wind turbines and a 75 kW roof-mounted solar array on a City of Houston building, located at 1002 Washington St., Houston, TX 77002 (proposed project).

The proposed project and associated actions have the potential to impact the following resource areas:

Land Use and Ground Disturbance: The City of Houston is in the process of converting a 190,000 sq ft warehouse into a multi-department office building. Houston's goal is to have the building LEED certified and it would showcase various renewable energy and energy efficiency technologies. Any ground disturbance related to renovation of the warehouse is not being analyzed as part of the NEPA determination. The installation of small-scale roof-mounted wind turbines and a roof-mounted solar array is not connected to, nor enable, the renovation of the warehouse. There would be no ground-disturbance or change in land use due to implementation of the proposed project. Therefore, DOE has determined there are no impacts to land use and no ground disturbance related to the proposed project.

Utilities: Three of the proposed turbines would be directly connected to the grid via conduit running from the turbine platforms on the roof to the building's electrical system. Implementation of the proposed project will not require new transmission lines. The fourth turbine would be used to showcase the benefits of utilizing small-scale wind systems. The solar array would likewise be grid connected. It is estimated that the turbines and array could produce (combined) ~125,000 kWh of electricity per year. DOE has determined that the proposed project would have a negligible impact to electricity use and production.

Visual and Aesthetics: The proposed turbines and solar array would be mounted on the roof once the warehouse has been renovated. Due to the small size of the proposed turbines and array, the roof top location, and the surrounding viewshed, DOE has determined the proposed project would have negligible impacts to visual resources and

aesthetics.

Noise: The proposed turbines have relatively low noise levels (~20 dB over ambient), and based on the roof top location, the baseline conditions (of an urban area), and attenuation, DOE has determined the proposed wind turbines would have a negligible impact on noise levels and there are no impacts associated with the solar array.

Biological Resources: Houston contacted the U.S. Fish and Wildlife Department (FWS) in regards to the proposed project. The FWS declined to consult with Houston. However, based on a review of the existing conditions at the proposed project location and the lack of potential for threatened and endangered species (particularly due to the fact that the turbines and array would be installed on an existing building) to be impacted by the proposed project, DOE has determined the proposed project would not impact listed or eligible species in the area.

Historic and Cultural Resources: The warehouse was built in 1924 and is eligible for listing on the National Register of Historic Places. The Texas State Historic Preservation Officer reviewed the proposed project and determined it would have no adverse effect on a historic property. Based on this and the proposed project location, DOE has determined the proposed project would not adversely effect this eligible structure.

Permits and consultations: The U.S. Army Corps of Engineers determined the proposed project locations are not subject to their jurisdiction under Section 10 of the Rivers and Harbor Act as well as Section 404 of the Clean Water Act. The FAA made a No Hazard determination for the proposed project. Other than permits required for installation of the proposed turbines and array, Houston does not anticipate needing additional permits for operation.

Based on review of project information and the above analysis, DOE has determined that the proposed project does not have a significant individual or cumulative impact to the human environment. The proposed project consists of 4 roof-mounted wind turbines and a 75 kW roof-mounted solar array. DOE has determined the proposed wind turbines are consistent with the actions contained in DOE categorical exclusion B5.18 "Wind turbines" and is categorically excluded from further NEPA review under CX B5.18. DOE has determined that installation of the solar array, on the roof of an existing structure, is consistent with the actions in DOE categorical exclusion B5.16 "solar photovoltaic systems" and is categorically excluded from further NEPA review under CX B5.16.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

DOE funding - $900,000
EF2a prepared by Melissa Rossiter

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 12/13/2011
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