PMC-EF2a
(2.04.02)

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

RECIPIENT: TEXAS COMPTROLLER OF PUBLIC ACCOUNTS **STATE:** TX

PROJECT TITLE : ARRA SEP CITY OF ADDISON TURBINE PROJECT - Phase II

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-EE0000116	EE0000116	GFO-0000116-018	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:

B5.1 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:

Project Description – The City of Addison, Dallas County, proposes to install ten 3.5-kw vertical axis wind turbines (Cleanfield V3.5) on the top of a new water tower. The water tower is being constructed without Federal funding. Each turbine would be 10.2 feet tall and 9 feet wide, and the total height of the water tower and turbines would be 195 feet. The electricity from the turbines will be used to run the water tower and adjacent street lights.

Potential Environmental Impacts:

Land Use – The turbines would be installed on the top of a water tower and would not affect surrounding land uses. No "areas having a special designation" (per 10 CFR 1021, subpart D, App B) or prime farmland would be affected.

Protected Species – Installation of the turbines would not affect any Federally listed threatened and endangered species (black-capped vireo, golden-cheeked warbler, piping plover, least tern, and whooping crane) that may occur in Dallas County, or any additional State protected species. The turbines are small (10-feet tall) and would be located in an urban setting in the Dallas metropolitan area where there is no critical habitat or breeding/nesting habitat for those species.

Other Biological Resources – The water tower would be located on an area that currently has a maintained lawn. Construction of the tower would not affect biological resources. Operation of the turbines could result in a small number of mortalities of birds and bats. No information is available about bird or bat mortalities resulting from the operation of small vertical axis turbines.

Cultural Resources – Installation of the turbines on the water tower would not directly affect any archeological or historical architectural resources. The operation of turbines on the top of the water tower would not contribute to any indirect visual or auditory effects on historic properties, as the turbines have low sound emissions and would be only a very small part of the large water tower structure.

Wetlands – The project site is flat and has been graded. The National Wetlands Inventory shows no wetlands in the area, and there are no nearby drainages or surface waters.

Floodplains – According to the FEMA Flood Insurance Rate Map for Dallas County (panel 180), the project site is outside of the 500 year floodplain.

Other Surface water and groundwater resources – There are no surface waters on or near the project site and installation and operation of the turbines would not affect surface or groundwater resources.

Coastal Zone Consistency Review – Addison is not within the area managed by the Texas coastal management program.

Noise – According to information provided by the turbine manufacturer for this evaluation, typical sound levels generated by the turbines are 20 to 30 dBA, and maximum sound levels are about 50 dBA. These sound levels will not be detectable at the nearest residences, which are 950 feet away, but the maximum sound levels generated by the turbines may be audible on very quiet nights at a motel located adjacent to the project site. Noise from the turbines would be further minimized by their location atop the 185-foot tower, which would partially block noise emissions from some receptors.

Aesthetics impacts – According to the City of Addison web site, the water tower is intended to be "a self powered water tower that doubles as a piece of art." Installation and operation of the 10-foot-tall wind turbines on top of the tower would result in a minor change in the appearance of the large water tower, would be an interesting addition to the view of the tower for some observers, and would not contribute substantially to a critical observer's opinion that the water tower results in an adverse effect on the view of the area.

Shadow flicker – There are no residential areas to the east or west of the project site. The turbines would be about 10 feet tall, spinning on a vertical axis, and mounted on the top of a 190-foot tower. Only those turbines on the edge of the tower could cast a shadow on the ground and they are small enough that any shadow likely would be dispersed and indistinct.

Hazardous substances and wastes – The turbines would be installed on top of a water tower and would not result in the disturbance of any hazardous substances or contaminants on the project site. No hazardous wastes or emissions would be produced.

Health and Safety – The turbines would not be accessible to the public and would not create any safety hazards.

Aviation – The City of Addison has obtained a "Determination of No Hazards to Air Navigation" from the FAA for construction of a 195-foot-tall structure, which includes the height of the water tower and turbines.

Conclusion - The City of Addison proposal involves the development of an energy-efficient industrial practice. The project would meet the conditions that are integral elements of the classes of actions for that and similar categories (10 CFR 1021, Subpt. D, App. B), and would have minimal impacts on the environment. The project therefore can be categorically excluded under category B5.1.

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: Steve Blazek Date: 11/10/2010

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.