PMC-EF2a
(2.04.02)

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

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

PROJECT TITLE : KENT COUNTY NURSING HOME WIND PROJECT

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000116	GFO-0000116-025	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:

B5.18 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:

DOE is proposing to provide $253,543 in SEP ARRA funding to Kent County Nursing Home (KCNH) to purchase and install two, 20 kW wind turbines.

The Kent County Nursing home was built in 2003 and is situated on 6 acres of land (1443 North Main Street, Jayton, Texas 79528). The area to the north and east of the nursing home consists of open farmland. A small residential community is located to the west of the nursing home. Currently, the proposed site consists of the nursing home, the parking lot and surrounding acreage that was scraped, leveled and compacted during construction. The proposed wind turbines would be located between the service road behind the nursing home and the front entrance and be 300 feet apart from one another in an north-south orientation. The closest wind turbine, the north wind turbine, would be located 250 feet from the nursing home. Ground disturbance during construction of both turbines would include 200 square feet for the foundation and 145 square feet for trenching.

The proposed wind system would consist of two, 20 kW Enertech 44A wind turbines, which have a nacelle height of 100 feet. Each turbine would contain three blades. At the top of the blade rotation, the maximum blade tip height would be 121 feet. The wind turbines would be installed on two separate 100-foot galvanized lattice towers with pier-drilled foundations. The wind turbines would have 3-phase, 480 VAC induction generators and would be directly connected to the power grid. The KCNH anticipates that all power produced would be used by the facility, but that any excess energy generated would be sold to local utility via a net metering agreement.

Due to close proximity to the residential community, DOE requested KCNH prepare a Shadow Flicker Analysis for the proposed site and surrounding area. The findings of the study concluded the two residential dwellings, located on the outer edge of the north wind turbines "Zone of Influence," have the potential to be impacted by shadow flicker from the sun's east angle position only during sunrise. The potential time for shadowing during the sunrise period is minimal and below the international standard of 30 hours/year. Based on this, DOE has determined impacts associated with shadow flicker would be minimal.

Areas containing wetlands, flood plains, cultural resources and threatened and endangered species in Texas have been identified, and the proposed project would not occur in proximity to these resources. In a letter dated October 20, 2011 the State Historic Preservation Officer (SHPO) determined No Historic Properties Affected. On August 16, 2011, the United States Fish and Wildlife Service (USFWS) responded with "no comment." Based on these consultations, DOE has determined there would not be any adverse impacts to these resources as a result of the proposed wind turbines.

The proposed site is located 1.5 miles north of an airport. KCNH consulted with the Federal Aviation Administration

(FAA) who issued both wind turbines a Determination of No Hazard to Air Navigation on October 14, 2011.

Based on this information, DOE has determined the work outlined is consistent with activities identified in categorical exclusion B5.18 (installation of wind turbines).

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 :

Cristina Tyler 12.30.2011

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 1/9/2012

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