PMC-EF2a
(2.06.02)

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

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

PROJECT TITLE : TEXAS A&M - CORPUS CHRISTI

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000116	GFO-0000116-027	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:

B5.18 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 Texas A&M University, Corpus Christie to receive $955,000 in SEP funding (total project cost - $1,220,000).

The University would use federal funding to partially fund the purchase and installation of three (3) 20 kW and eight (8) 4 kW vertical wind turbines at the University in three locations: 6300 Ocean Drive, Corpus Christi, TX ("Site 1"); 701 Nile Drive, Corpus Christi, TX ("Site 2"); and 10201 SPID, Corpus Christi, TX ("Site 3") (these 3 locations comprise the "proposed project"). The vertical wind turbines are manufactured by Urban Green Energy, a manufacturer of small wind systems since 2007 (see attached pictures for existing UGE turbines).

The University proposes to install two 4kW Vertical Wind Turbines (height of ~ 23') and two 20kW Vertical Wind Turbines (height of ~ 43') at Site 1; at Site 2 the University proposes two 4kW Vertical Wind Turbines (height of ~23') and one 20kW Vertical Wind Turbine (height of ~ 43'); and proposes four 4kW Vertical Wind Turbines (height of ~23') at Site 3.

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

Land Use and Ground Disturbance: The relatively small size of these vertical wind turbines means that ground disturbing activities would be minor and are as follows: Site 1 – would require a total of ~ 650 sq ft of disturbance for turbine foundations and a 375 x 1 ft trench for associated distribution lines. The turbines at Site 1 would be installed next to a parking lot and bike trail. Site 2 – would require a total of ~ 480 sq ft of disturbance for turbine foundations and a 350 x 1 ft trench for associated distribution lines. The turbines at Site 2 would be located between the new Tennis Complex and the parking lot on the Northeast corner. Site 3 – would require a total of ~ 624 sq ft of disturbance for turbine foundations and a 100 x 1 ft trench for associated distribution lines. The turbines would be installed near the main parking lot of the CBBIC building. (See "A&M Corpus - location Attachments.pdf" for additional siting information). All proposed locations are accessible by existing roads and owned by the University. The proposed projects would be located on previously disturbed land, within the boundaries of the University. Because of the relatively minor ground disturbance required for the proposed project, DOE does not anticipate any adverse impacts related to ground disturbance.

Utilities: All locations will have an underground conduit from the turbines to a building for connection to the power grid through safety control and distribution equipment. There are no above-ground distribution lines required for the proposed project. All generated power would be fully utilized at each location through a metered connection to the

main power grid approved and permitted by the local electrical power supplier AEP. Total installed capacity will ultimately produce ~ 217,945 kWh of electricity annually. (Attachments #1 and #2). DOE has determined that the proposed project would have a small, beneficial impact on electric consumption at the University and a negligible impact to electricity use and production outside of the University.

Visual and Aesthetics: All wind turbines would be on cement foundations without any occupied structures nearby. Site 1 would not be visible to the larger public (those not affiliated with the University). Site 2 would be visible from the Nile Drive roadway and there are residences along the far property lines that may have view of the proposed turbines at this location; however these turbines would be largely blocked by the Tennis Complex and the City Water Sanitation complex. Site 3 turbines would be visible to other commercial property users in the surrounding vicinity, which includes a, a boat shop, a post office, and a commercial building and associated parking lot. Due to the distance from occupied structures, the height of the proposed turbines, DOE has determined that impacts related to "shadow-flicker" would be negligible. After reviewing the existing conditions at the proposed locations and the current use in the vicinity, DOE has determined that the proposed project would have minor impacts to visual resources and aesthetics.

Noise: The Urban Green Turbines have a certification IEC-61400-11 noise level at 38 dBs (Attachment #8). Therefore, based on the distance from occupied structures, baseline conditions, and attenuation, DOE has determined the proposed project would have a negligible impact on noise levels.

Biological Resources: The applicant has received a 'No Impact' letter from the U.S. Fish and Wildlife Department; therefore, DOE has determined the proposed project would not impact listed or eligible species in the area.

Historic and Cultural Resources: An archaeological assessment was conducted as part of the Texas A&M University Expansion Project and included the proposed project locations and there was nothing of note discovered. (See Attachment- "HALFF Environmental Report"). Based on this and the previous disturbance at the proposed project locations, DOE has determined the proposed project would not adversely impact historic or cultural resources. Should unanticipated discoveries be made during construction, the University would immediately cease construction and contact the Texas State Historic Preservation Officer for guidance.

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 (See Attachment #6). The University received clearance from Naval Air Station-Corpus Christi indicating the turbines would not have any impact on local aviation operations (Attachment #7). The FAA has provided "No Hazard" determinations for the proposed turbines. Other than permits required for construction of the proposed turbines, the University 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. Although the proposed project consists of 11 turbines, because each turbine would be less than ~43' tall; location on previously disturbed land; distance from airports and weather radars (and determinations by FAA and the Navy); lack of potential to impact bird and bat populations; and lack of impacts related to shadow flicker, visual resources, and noise DOE has determined the proposed project is 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.

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 - $955,000
Total project cost - $1,220,000
EF2a prepared by Melissa Rossiter

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 12/8/2011
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION