

PMC-EF2a

(2010)

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



RECIPIENT: Oklahoma Department of Commerce

STATE: OK

**PROJECT TITLE :** EECBG/Town of Drummond Wind Turbine Project Beyond State Template

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000013	DE-EE0000922		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:

- A9** Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).
- 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 Town of Drummond, OK proposes to use \$250,000 to install a 172 foot, 50kW wind turbine which will be used to generate electricity to meet the needs of Drummond Public School. Installation of the turbine will result in one full time job and an annual energy savings of approximately 215,000 kWh. An Environmental Feasibility Study, Electromagnetic Study, and Shadow Flicker analysis have all been performed by Wind Energy Consulting & Contracting, Inc. (WECC) at the Town of Drummond. All studies and analysis were performed in May, 2010. All impacts relating to shadow flicker, noise, and zone of visual influence were calculated using WindPRO software.

The turbine will be located in an existing agriculture field to the east of the Town of Drummond. All surrounding land use is comprised of agricultural or open pasture. No sensitive or designated wildlife habitats are located within or directly adjacent to the proposed turbine location.

Potential environmental impacts of the project and associated actions include:

**Air Quality** – no negative impacts anticipated with project activities. Total tower height does not exceed 200 feet, however, FAA was still contacted by Town of Drummond and approval permit is expected within the next few weeks.

**Electromagnetic Interference** – Based on the Environmental Study performed by WECC, the proposed turbine placement location does not obstruct existing or planned microwave links.

**Shadow Flicker** – Based on the Environmental Study performed by WECC, the primary buildings affected by wind turbine shadow flicker will be the North and South Wing of Drummond public school, which, at the greatest extent, will only consist of a 10-minute disturbance duration in the morning hours of spring and fall timeframes. Additionally, this duration of disturbance is based on the assumption enough wind will be present during these times for the turbine to be in operation.

**Noise** – Based on results provided by WECC from their environmental study, it is highly unlikely the noise of the turbine would be perceptible above ambient background noise from the surrounding area.



Visual – Based on results provided by WECC, some part of the wind turbine will be visible in all parts of the Town of Drummond. However, the placement of the proposed wind turbine will not block or obstruct any significant landscape views (mountains, water, etc) as the Town of Drummond is a small farming community located on a nearly flat landscape.

Wetlands – The proposed turbine site is located approximately 1-mile east of Drummond Flats, a man-made and maintained wildlife management area comprised of various wetland complexes and habitat types. WECC consulted with the U.S. Fish and Wildlife Service (USFWS) regarding the turbine placement and coordinated on minimization of impact practices that will be used upon project initiation. Based on coordination efforts with USFWS, two listed threatened or endangered species were identified with the potential to occur within Garfield County, OK where Drummond is located. However, through consultation with USFWS, WECC determined the proposed wind turbine site does not present a great threat to any threatened or endangered species, and any impacts to species populations would be negligible.

USFWS recommendations for reducing impacts to wildlife include:

- A 2 year monitoring period following turbine installation for evidence of dead birds/bats
- Development and implementation of an Avian and Bat Protection Plan
- Inclusion of provisions for pre- and post-construction wildlife research and monitoring, and copies of all reports/work will be provided to the USFWS and any other involved cooperating wildlife entities.

Overall, there would be no or negligible impacts to biological resources, cultural resources, wetlands, or other sensitive resources.

Based on the approximate energy savings of 215,000 kWh per year and lack of environmental impacts, this project is categorically excluded from further NEPA review under CX B 5.1, Actions to Conserve Energy, A9, Information Gathering, and B 3.6 Siting, construction, operation of small-scale development projects.

#### 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: \_\_\_\_\_

NEPA Compliance Officer

Date: \_\_\_\_\_

8/17/10

#### 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: \_\_\_\_\_

Field Office Manager

Date: \_\_\_\_\_