

PMC-EF2a

(20402)

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



RECIPIENT: Kansas State University

STATE: KS

**PROJECT TITLE :** Great Plains States Wind Energy Consortium

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000090	DE-EE0000555	GFO-10-144	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).
- C12** Siting, construction, and operation of energy system prototypes including, but not limited to, wind resource, hydropower, geothermal, fossil fuel, biomass, and solar energy pilot projects.

## Rational for determination:

Kansas State University will use Congressionally Directing funding through DOE to develop the Great Plains States Wind Energy Consortium aimed at increasing the penetration of wind energy via distributed wind power generation throughout the region.

## Tasks for this project include:

- Task 1.0 Non-contact instrumentation for vibration measurement and damping
- Task 2.0 Increasing the robustness of the power grid through distributed solar and wind generation: a theoretical approach
- Task 3.0 Networked Control and Management of Distributed Wind Generation
- Task 4.0 Market Design and Policy Issues
- Task 5.0 Distributed Generation Laboratory Development
- Task 6.0 Zond750 kW Wind Turbine Refurbishment and Installation
- Task 7.0 Project Management and Reporting

Task 1.0 involves the design and development of a non-contact instrumentation turbine system. This is a research and development activity that will take place in laboratories at Kansas State University and Wichita State University.

Task 5.0 will involve developing a distributed generation laboratory at the Universities. This will involve purchasing specialized equipment (energy generators) to supplement existing laboratory facilities. Each University has submitted and R&D questionnaire which addresses their safety and waste handling protocols that cover work being conducted in task 1.0 and 5.0.

Tasks 2.0 – 4.0 will consist of computer and mathematical modeling and studying market design and policy issues with distributed generation.

Tasks 1.0 – 5.0 and 7.0 comprise conventional laboratory work, computer modeling, and information studies; therefore a CX A9 and B3.6 will apply.

During Task 6.0, the Kansas State University will use DOE and cost share funding to refurbish the generator and gearbox of a wind turbine, install and maintain the turbine for on campus educational purposes. A Zond 750 Wind Turbine was recently donated to the College of Engineering at Kansas State University and will be used for this task. This wind turbine will be installed on Kansas State University's campus. Existing and potential impacts are unknown for this task. Per the DOE NEPA implementing regulations (Appendix C to Subpart D to 10 CFR Part 1021 - C12), a

preparation of an Environmental Assessment is required prior to allowing federal funds for this task of the proposed project.

**NEPA PROVISION**

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Task 6.0 Zond750 kW Wind Turbine Refurbishment and Installation

DOE funds are not authorized for final design, capital equipment purchase or refurbishment, project site preparations and all construction activities (Task 6.0) pending outcome of the environmental assessment.

This restriction does not preclude you from:

Tasks 1.0 – 5.0, and 7.0

Kansas State University is authorized to initiate the preparation of an EA by a third-party contractor, consistent with DOE NEPA implementing regulations. DOE, Kansas State University and third-party contractor shall enter into a Memorandum of Agreement (MOA) defining the scope of services to be completed by the third-party contractor on behalf of DOE.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Insert the following language in the award:

You are required to:

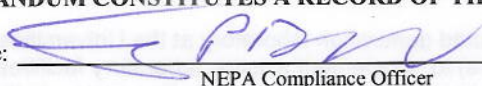
Kansas State University is authorized to initiate the preparation of an EA by a third-party contractor, consistent with DOE NEPA implementing regulations. DOE, Kansas State University and third-party contractor shall enter into a Memorandum of Agreement (MOA) defining the scope of services to be completed by the third-party contractor on behalf of DOE.

Note to Specialist :

Task 6.0 of this project will require the preparation of an environmental assessment. NEPA recommends that the recipient's grant be placed on ASAP approval. Funding for task 6.0 is conditional pending the outcome of the Environmental Assessment

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature:



NEPA Compliance Officer

Date:

2/26/10

**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 :**

