PMC-EF2a

(2.06.02)

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

RECIPIENT: Texas Tech University **STATE:** TX

PROJECT TITLE: Midsize wind turbine designed and manufactured in the USA (BUDGET PERIOD 1)

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000327	DE-EE0004415	GFO-0004415-001	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.

Rational for determination:

Texas Tech University (TTU) is proposing to use DOE funding to design and manufacture a 500 kW wind turbine product that would accelerate the development and availability of midsize turbines for the commercial US market. The proposed project would be completed using two budget periods. This evaluation is for Budget Period 1 only, dependent on a go/no-go policy; budget period 2 funding is subject to a reevaluation by DOE after Budget period 1.

Tasks include:

Task 1.0—Production Design and Development Engineering
Subtask 1.1—Concept Design
Subtask 1.2—Blade Aerodynamic Design
Subtask 1.3—Rotor System Design
Subtask 1.4—Performance and Load Analysis
Subtask 1.5—Nacelle Structure Design
Subtask 1.6—Gearbox Design
Subtask 1.7—Generator and Drive Design
Subtask 1.8—Controls and Electrical Design
Subtask 1.9—Tower Design
Subtask 1.10—Foundation Design
Subtask 1.11—Installation and Operations and Maintenance Document
Task 2.0—Tooling
Subtask 2.1—Blade Production Tooling
Subtask 2.2—Spar Production Tooling
Subtask 2.3—Nacelle Enclosure Production Tooling
Subtask 2.4—Tailcone Production Tooling
Task 3.0—Production and Assembly
Task 4.0—Component Testing and Development
Subtask 4.1—Blade/Spar Static, Fatigue, Natural Frequency Testing
Subtask 4.2—Generator Drive Development and Testing
Subtask 4.3—Drive Train Endurance Testing
Subtask 4.4—Yaw Drive Testing
Subtask 4.5—Turbine Control and Monitoring System Testing
Task 5.0—Site Selection and Environmental Studies
Subtask 5.1—Site Selection
Subtask 5.2—Environmental Studies

Task 6.0—Turbine Development and Construction
Task 7.0—Certification Support and Turbine Testing
Task 8.0—Commission Prototype Turbines
Task 9.0—Project Management and Reporting

Budget Period 1 would include Task 1.0, Task 5.0 and Task 9.0. Budget Period 2 would include Task 2.0 through Task 4.0 and Task 6.0 through Task 8.0, which DOE will not review at this time.

Task 1.0, production design and development engineering, would involve eleven subtasks, which include design drawings and performance and load analysis. Materials would be selected. Paper studies would include component numerical analysis and component testing to ensure they meet both aerodynamic and manufacturing requirements.

Task 5.0 would involve two subtasks including environmental studies and site selection. Environmental studies would involve TTU hiring a third-party contractor to conduct preliminary environmental studies for site selection. Site selection would involve selecting the location at which the prototype would be erected.
Task 9.0 would involve reports and other deliverables in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

In view of the information provided by the State and the recipient, DOE has determined that the impacts related to Task 1.0, Task 5.0 and Task 9.0 of the proposed project are anticipated to have negligible affects on the human and natural environment. Task 1.0, Task 5.0 and Task 9.0 are consistent with actions outlined in A9 (information gathering) and are, therefore, categorically excluded from further NEPA review.

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:
Budget Period 2 Tasks:
Task 2.0
Task 3.0
Task 4.0
Task 6.0
Task 7.0
Task 8.0
This restriction does not preclude you from:
Budget Period 1 Tasks:
Task 1.0, Task 5.0 and Task 9.0.
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.

Note to Specialist :

EF2a prepared by Cristina Tyler on 12/17/2010.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 12/22/10
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON: