

PMC-EF2a

(20602)

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



RECIPIENT: Clemson University

STATE: SC

PROJECT TITLE : Recovery Act: Clemson University Wind Turbine Testing Facility

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DOE-FOA-0000112	DE-EE0003023	GFO-10-159	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:

- 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.
- 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:

DOE is proposing to provide federal funding to the recipient to design, construct, commission and operate a state-of-the-art sustainable facility that permits full-scale highly accelerated testing of advanced drive-train systems for large wind turbines.

The facility would be located in Building 69 at the Charleston Naval Complex, a former DOD Naval base in North Charleston, S.C. It would be a part of the Clemson University Restoration Institute (CURI) campus. Building 69 has access to shipping by water, road and rail, and has potential for expansion. The test facility would have two test bays, associated power electronics, overhead cranes for moving equipment, office space for personnel, an external preparation building; and supporting instrumentation. A dedicated rail spur would facilitate the delivery and departure of test units. The port has existing infrastructure that provides loading and unloading of test specimens and equipment, machine shop facilities and access to additional office space.

The facility would consist of two test rigs equipped with independent drive systems. A climate chamber and sound separation system can be added on either test stand. Test Stand #1, would have the capability to apply dynamic and static loads to the main shaft of the specimen drive-train replicating forces and moments along three orthogonal axes thereby simulating actual blade forces experienced in the field. Test Stand #2, would be a 7.5 MW component test stand. The test facility would operate as a non-profit entity with a business model designed for sustainability while providing ongoing state-of-the-art testing to wind turbine and gear box manufacturers. The facility's primary mission would be to service the wind industry with a secondary mission of promoting industry/government/university collaboration in research and workforce education. The facility would be manned with a dedicated workforce to service industry needs with additional services offered by established local industries as needed by customers.

CX A9 applies to the planning, preliminary design and project management activities (Tasks 1, 2 and 8).

An Environmental Assessment (EA C12) is required prior to DOE committing funds to final design, construction, commissioning and operation activities (Tasks 3 - 7).

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:

Final design, construction, commissioning and operation activities (Tasks 3 - 7)

This restriction does not preclude you from:

Planning, preliminary design and project management activities. (Tasks 1, 2 and 8)

The recipient is authorized to initiate the preparation of an EA by a third-party contractor, consistent with DOE NEPA implementing regulations. DOE, Clemson 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.

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:


NEPA Compliance Officer

Date:

3/2/10

FIELD OFFICE MANAGER DETERMINATION

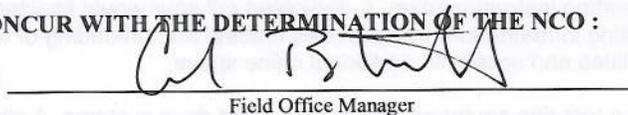
Field Office Manager review required

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:

3/4/10