PMC-EF2a

(2.04.02)

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

**RECIPIENT:** Clipper Windpower, LLC **STATE:** CA

**PROJECT TITLE :** Novel Low Cost, High Reliability Wind Turbine Drivetrain

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|---|---|---|
| DE-FOA-0000439 | DE-EE0005141 | GFO-0005141-001 | EE5141 |

**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:

DOE is proposing to provide federal funding to Clipper Windpower, Inc. to develop a novel wind turbine drivetrain that is suitable for turbines larger than 1 MW. This wouldbe done by conducting system-level design studies to determine the preferred configuration, analyzing and characterizing the component technology to ensure it meets the application requirements, and, finally, developing and testing a full-scale multi-megawatt prototype.

Project Tasks include:

Budget Period 1 (BP1)-
Task 1: Project Management & Planning
Task 2: Benchmarking and Parametric Model Development
Task 3: System Topology Selection and Optimization
Task 4: Component Design and Analysis
Task 6: Finalize Concept Design and Risk Reduction and Test Plan

Budget Period 2 (BP2)–
Task 7: Detailed Design and Analysis of Full-Scale Test Rig
Task 8: Subscale Testing and Evaluation
Task 9: Full Scale Prototype Assembly and Testing
Task 10: Updated COE Analysis and Commercialization Plan

This NEPA review is for Budget Period 1 (Tasks 1 - 6). During Budget Period 2 (Tasks 7-10), Clipper proposes to conduct laboratory R&D and test prototypes at a National Laboratory. Details on specific locations and activities has not been finalized; therefore a NEPA determination cannot be made for these tasks at this time.

Budget Period 1 activities involve a background review of current wind turbine drivetrain technology as well as a trade study to identify preferred drivetrain system specifications to reach project objectives. These activities would involve conducting computer modeling and simulations as well as paper studies. For Budget Period 1, there would be no laboratory work and no prototypes fabricated.

Budget Period 1 involves, data gathering, data analysis computer modeling, preliminary designs and project management activities. Budget Period 1 tasks are consistent with actions outlined in categorical exclusion A9 (information gathering, data analysis, dissemination) and are 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 7 - 10)

This restriction does not preclude you from:
Budget Period 1 (Tasks 1 - 6)

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:
Submit an additional EF1 and all supplemtal supporting documentation with details on location and all activities for a project tasks occurring under Budget Period 2 (Tasks 7-10), as described in the final SOPO.

Note to Specialist :

This project has activities that are conditioned under NEPA. We recommend that this project be placed on ASAP approval and that funding for tasks 7-10 be unallowable.

Budget Period 1 ($623,063)
DOE Share = $498,450 / Cost Share = $124,613

Review completed by Laura Margason

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

NEPA Compliance Officer Signature: _____ Date: 8/16/2011
NEPA Compliance Officer

**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: _____ Date: _____
Field Office Manager