

PMC-EF2a

(20102)

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



RECIPIENT: Zimtar, Inc.

STATE: CA

**PROJECT TITLE :** High Efficiency Structural Flowthrough Rotor With Active Flap Control

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000415	DE-EE0005492	GFO-0005492-001	EE5492

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, analysis, and dissemination** Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

**Rational for determination:**

Zimtar, Inc. is proposing to use federal funding from the Department of Energy to conduct research and development activities that would assist in engineering a lightweight, one-piece wind turbine rotor that would have the ability to increase energy capture. Zimtar would be performing design studies and research on a structural flow-through rotor design in order to achieve this goal.

Project activities would be conducted in two budget periods. During Budget Period 1, Zimtar is proposing to create conceptual designs and conduct design modeling. Budget period 2 activities include laboratory validation and testing but would not move forward until a Go/No-Go decision is made for Budget Period 1 tasks. This determination is being made for Budget period 1 (task 1 and task 2 only).

Tasks for the proposed project include:

Budget Period 1:

Task 1.0 Offshore Rotor Design Study  
 Subtask 1.1: Define Technical Approach  
 Subtask 1.2: Conceptual Design  
 Subtask 1.3: Preliminary Design  
 Subtask 1.4: Laboratory and Field Testing (planning activities only)

Task 2.0 Design Review and Report Stage Gate

Budget Period 2:

Task 3.0 Design Utility-Scale Test Articles  
 Task 4.0 Build and Test Utility-Scale Test Articles  
 Subtask 4.1: Fabricate Test Article Patterns  
 Subtask 4.2: Construct Blade Tooling  
 Subtask 4.3: Fabricate Test Articles  
 Subtask 4.4: Perform Laboratory Tests  
 Subtask 4.5: Perform Field Tests  
 Subtask 4.6: Develop Commercialization Plan

### Task 5.0 Project Management and Reporting

Activities occurring under Task 1 (subtasks 1.1 – 1.4), Task 2, and Task 5 involve data gathering, paper studies, modeling and preliminary designs that would assist Zimtar to prepare for the potential advancement of their proposed project in BP2, should DOE determine to further fund this project after the Go/No-Go decision point. Specifically, subtask 1.4 involves planning for prototype laboratory and field testing to prepare for validation of engineering models. No physical models or laboratory work would be conducted under this subtask.

Based on the above information, DOE has determined that Tasks 1, 2 and 5 are consistent with activities identified in categorical exclusion A9 (Information gathering data analysis, conceptual design, and computer modeling).

### 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/NSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Tasks 3 and 4

This restriction does not preclude you from:

Tasks 1, 2 and 5

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:

Upon approval of BP2 funding, a new EF1 would need to be submitted specific to activities for tasks associated with this budget period.

Note to Specialist :

Review completed by Laura Margason 6-11-2012

Budget Period 1 Total: \$874,893 (Federal \$699,893 / Cost Share \$175,000)

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

NEPA Compliance Officer Signature: \_\_\_\_\_

 Electronically Signed By Lori Gray  
NEPA Compliance Officer

Date: 6/12/2012

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