

PMC-EF2a

(2010)

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



RECIPIENT: Northern Power Systems

STATE: VT

PROJECT TITLE : Commercialization of an Advanced 450 kW Midsize Turbine

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000327	DE-EE0004413	GFO-0004413-001	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:

Northern Power Systems, in Barre, Vermont, is proposing to use federal funding to design, build, and test a 450 kW midsize turbine that would advance midsize turbines in the commercial market.

The proposed project would be completed in two budget periods. This NEPA evaluation is for budget period 1 only; budget period 2 funding is subject to a re-evaluation after budget period 1.

Budget Period 1

Task 1: Project Plan (Continues in BP2)

1.1 Project Management and Planning

1.1.1 Preliminary Project Plan

1.1.2 Final Project Plan

1.2 Business Plan for Accelerated Commercialization

1.2.1 Preliminary Commercialization Plan

1.2.2 Final Commercialization Plan

1.3 Certification Planning

1.3.1 Preliminary Certification Plan

1.3.2 Final Certification Plan

Task 2: Critical Design Review

2.1 Preliminary Manufacturing Drawings and Specifications

2.2 Controls and Monitoring Systems Design

2.3 Trade-off Study for Blade Decision

2.4 Pitch System Optimization

2.5 Supplier Qualification, First Article Inspections, Component and Subsystem Testing

Task 3: Final Design Review and Supply Chain Development (Continues in BP2)

3.1 Detailed Design Review

3.1.1 Preliminary Detailed Design Review

3.1.2 Final Detailed Design Review

3.2 Procurement Plan

3.2.1 Preliminary Procurement Plan

3.2.2 Final Procurement Plan

3.3 Test Plan Preparation

3.3.1 Preliminary Test Plan

3.3.2 Final Test Plan

Budget Period 2

Task 4: Procurement, Assembly and Test of Prototype

4.1 Dynamometer Testing of Generator-Converter Drivetrain

4.2 Blade Qualification

4.3 Component Testing of the Generator Sections

4.4 Component Testing of Parallel Power Converters

4.5 Assembly of Nacelle in Barre

4.6 Installation of Complete Midsize Turbine (Tower, Nacelle, Blades) at Test Site (Location To Be Determined)

Task 5: Design for Manufacture and Commercial Scale-Up

5.1 Reconfiguration or Expansion of Barre, Vermont Facility

5.2 Expansion of Supply Chain

Task 6: Final Project Reporting

Tasks 1 through 3, which include computer studies, modeling and drawings, would be performed at Northern Power Systems existing manufacturing facility located at 29 Pitman Road, Barre, Vermont, 05641.

Task 1 would involve the development of a project plan. Task 2 would involve the critical design review stage, which would validate design components and testing standards. Technical specifications for manufacturing, in the form of drawings, would be completed in this task. Task 3 would involve the final design review and supply chain development. A detailed design review package would be produced in this task.

In view of the information provided by the State and the recipient, DOE has determined that the impacts related to Tasks 1-3 of the proposed project are anticipated to have negligible effects on the human and natural environment. Tasks 1-3 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

Task 4

Task 5

Task 6

This restriction does not preclude you from:

Budget Period 1

Task 1

Task 2

Task 3

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 :

Cristina Tyler 3.1.2011

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:



NEPA Compliance Officer

Date:

3/17/11

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required