

PMC-EF2a

(204.02)

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



RECIPIENT: Ocean Renewable Power Company, LLC

STATE: ME

PROJECT TITLE : OCGen Module Mooring Project

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000069	DE-EE0002650	GFO-10-177	GO0

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.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).
- B3.1** Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to:

## Rational for determination:

Ocean Renewable Power Company, LLC (ORPC) is proposing to use DOE and cost-share funding to research technological challenges associated with anchoring submerged, buoyant hydrokinetic devices in fast-moving water and to demonstrate commercial-grade means of generating electricity in tidal streams.

## Tasks for this project include:

- Task 1.0: Modeling of Loads on Mooring System (computer modeling, CX A9)
- Task 2.0: Dynamic Stability Analysis (computer modeling, CX A9)
- Task 3.0: Dynamic Analysis of Mooring System and Lines (data collection, CX A9)
- Task 4.0: Scale Model Testing (lab testing, CX B3.6)
- Task 5.0: Geophysical Surveys (field research, B3.1)
- Task 6.0: Cable and Mooring Design (data collection and desk-top research, CX A9)
- Task 7.0: Experimental Mooring of a Beta Pre-Commercial Turbine Generator Unit (NEPA hold)
- Task 8.0: Procurement and Installation of OCGen™ Mooring System (NEPA hold)
- Task 9.0: Project Management (CX A9)

During task 4.0, ORPC will construct and test scale models of their OCGen™ module and perform model testing in the tow tank at the University of Maine. ORPC will design and construct the scale model device in their facilities. Facility questionnaires have been submitted for these location which address ORPC and the University of Maine's established safety and health protocols.

During task 5 ORPC's subcontractor will conduct seabed classification and bottom habitat surveys. This survey work will take place over a two day period. A side-scan sonar system with a dual frequency towfish and a sediment grab sampler equipped with high resolution color underwater video cameras will be used to conduct this work. The equipment will be lowered to the bottom from the survey vessel using an oceanographic winch with an armored electromechanical cable. No equipment will be deployed from the vessel and left on the bottom for this study.

Task 7.0 and 8.0 involve installation of mooring systems and generators into the ocean environment. Impacts related to these activities are not known and additional information must be submitted before a NEPA determination can be made. A NEPA determination cannot be made for these tasks at this time.

Tasks 1.0 – 4.0, 6.0 and 9.0 involve information gathering and bench-scale research conducted in existing facilities with established health and safety protocols; therefore a CX A9 and B3.6 apply.

Task 5 involves offsite site characterization and environmental monitoring; therefore a CX B3.1 applies.

Tasks 7.0 and 8.0 involve construction, installation and testing of mooring systems into an ocean environment. Impacts related to these activities are not known at this time. Additional information from ORPC and federal agency consultation by DOE with US Army Corps, FERC and/or NOAA must be conducted prior to making a final determination. These tasks are unallowable at this time.

#### 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:  
Tasks 7.0 and 8.0

Including all in-ocean deployments and installations of prototype technology

This restriction does not preclude you from:

Tasks 1.0 – 6.0 and 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.

Insert the following language in the award:

You are required to:

Submit and additional EF1 with information specific to SOPO tasks 7.0 and 8.0. Include detailed information on task activities and all documentation regarding the US Army Corps consultation and permit; FERC consultation and permits; and NOAA consultations/concurrence. ORPC must assist DOE in coordination activities with all federal agencies with jurisdiction over activities related to this project, including but not limited to US Army Corps, FERC and NOAA.

Note to Specialist :

Review completed by Laura Margason 5/28/2010

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

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

NEPA Compliance Officer

Date: \_\_\_\_\_

5/28/10

#### 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.