PMC-EF2a
(20602)

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

RECIPIENT: Ocean Renewable Power Company **STATE:** ME

PROJECT TITLE : OCGen Module Mooring Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000069	EE0002650	GFO-0002650-002	EE2650

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:

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:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

This NEPA review is being conducted for tasks 7.0 and 8.0 of ORPCs's proposed Module Mooring Project. During the initial NEPA review (signed on May 28, 2010), these two tasks were unallowable pending the submission of additional information and the renewal of the US Army Corps permit. Under these tasks, ORPC is proposing to design a mooring system for their OCGen™ Pre-Commercial Turbine Generator Unit (TGU) unit, moor the unit to the sea floor, and conduct monitoring to determine the effectiveness of the anchoring and cable system.

Tasks for this project include:

Task 1.0: Modeling of Loads on Mooring System (given a CX A9)
Task 2.0: Dynamic Stability Analysis (given a CX A9)
Task 3.0: Dynamic Analysis of Mooring System and Lines (CX A9)
Task 4.0: Scale Model Testing (given a CX B3.6)
Task 5.0: Geophysical Surveys (given a B3.1)
Task 6.0: Cable and Mooring Design (given a CX A9)
Task 7.0: Experimental Mooring of a Beta Pre-Commercial TGU
Task 8.0: Design of OCGen ™ Module Mooring System (rescoped task)
Task 9.0: Project Management (CX A9)

Task 8.0 of the original scope of the SOPO has been changed. ORPC no longer plans to deploy a full-scale OCGen unit under this task but is proposing to use DOE funding to design and construct a TGU to mimic the behavior of an OCGen™ module - but without a generator or power control electronics. The OCGen™ unit would not produce electricity but the turbines blades would rotate freely.

The new scope of work would involve mooring the TGU unit to the sea floor at ORPC's project site in Eastport, Maine's Cobscook Bay. The unit would be deployed for two months. During this time, instrumentation would record strain on mooring lines, altitude of the TGU and ambient flow conditions. The data collected would be used in ORPC's mooring models to allow the design to be further optimized. While the unit is in the water, ORPC would also monitor the environmental impact of the moorings using a Didson hydroacoustic unit that would be attached to the TGU frame. This hydroacoustic system would monitor fish and mammal interactions with the TGU in real time and provide vital

environmental data for future deployments at the project site.

The New England district of the Army Corps of Engineers (ACOE) has reviewed this project as part of their NEPA and permitting obligations and has determined that ORPC's mooring project would have only temporary and minimal individual and cumulative impacts on US waters and wetlands and has issued a Programmatic General Permit (PGP) for the proposed activities.

This permit has been extended three times, the most recent extension includes activities associated with tasks 7.0 and 8.0 proposed under this award (attached - ACOE Permit Extension 3-7-11). Under Special Condition 4 of the permit, ACOE authorized an extension for project activities to move forward until December 31, 2011 in order to complete the testing and the associated environmental monitoring.

As part of their responsibilities under the Endangered Species Act, ACOE requested a Section 7 consultation with the National Marine Fisheries Service and received concurrence that this project and its activities "may affect, but are not likely to adversely affect" the Gulf of Maine Distinct Population Segment of Atlantic salmon (GOM DPS). Additionally, the NMFS acknowledged the project would not take place in any designated critical habitat for any listed endangered species and effects, if adverse, would be insignificant or discountable to species eligible for ESA listing and species protected under the Marine Mammal Act.

As a condition of the ACOE the permit and NMFS consultations, ORPC must monitor ambient and operational noise during operation and the presence of seals in and around the site and their behavior in response to the operations. ORPC has committed to establishing and providing all monitoring details to the NMFS office in Orono, Maine.

As part of another condition of the ACOE permit, ORPC is required to mark the structures in accordance with appropriate US Coast Guard Regulations. ORPC has received a PATON (Private Aids to Navigation) from the US Coast Guard for this work, dated January 14, 2010 and extends until project activities have been completed and Coast Guard is notified.

Based on the above information, permits and approvals acquired by ACOE, NMFS and the Coast Guard, DOE had determined that activities being proposed under Tasks 7.0 and 8.0 of this project are anticipated to have negligible or no effects on the human and natural environment. Tasks 7.0 and 8.0 are consistent with actions outlined in categorical exclusions B3.1 (site characterization and environmental monitoring) and B5.1 (actions to demonstrate potential energy conservation, small-scale conservation and renewable energy research and development and pilot projects) and are, therefore, categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:

Adhere to all conditions of the US Army Corp's Main Programmatic General Permit #NAR-2007-01712 and all subsequent renewals of such permit; including special conditions #1-8 from the original permit and all conditions of the renewals.

Adhere to the special conditions #1 – 7 as established in the April 2, 2010 NMFS consultation letter. Re-initiation of consultation with the NMFS is necessary if: (a) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation;(b) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the consultation; or; (c) if a new species is listed or critical habitat designated that may be affected by the identified action.

Note to Specialist :

Review completed by Laura Margason June 7, 2011

PROJECT COST:

TOTAL PROJECT FUNDING: $2,069,069 (DOE: $1,034,534/ COST SHARE: $1,034,535)

FOR TASKS 7.0 & 8.0 (remaining amount being lifted in this determination)

TASKS TOTAL: $1,035,535 (DOE: $517,767/COST SHARE: $517,768)

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 6/7/11
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