

PMC-ND

(1.08.09.13)

**U.S. DEPARTMENT OF ENERGY**  
**OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY**  
**NEPA DETERMINATION**



RECIPIENT: Ocean Renewable Power Company, LLC

STATE: ME

**PROJECT TITLE :** OCGen™ Module Mooring Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000069	DE-EE0002650	GFO-0002650-003	GO2650

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:

**B5.25 Small-scale renewable energy research and development and pilot projects in aquatic environments** Small-scale renewable energy research and development projects and small-scale pilot projects located in aquatic environments. Activities would be in accordance with, where applicable, an approved spill prevention, control, and response plan, and would incorporate appropriate control technologies and best management practices. Covered actions would not occur (1) within areas of hazardous natural bottom conditions or (2) within the boundary of an established marine sanctuary or wildlife refuge, a governmentally proposed marine sanctuary or wildlife refuge, or a governmentally recognized area of high biological sensitivity, unless authorized by the agency responsible for such refuge, sanctuary, or area (or after consultation with the responsible agency, if no authorization is required). If the proposed activities would occur outside such refuge, sanctuary, or area and if the activities would have the potential to cause impacts within such refuge, sanctuary, or area, then the responsible agency shall be consulted in order to determine whether authorization is required and whether such activities would have the potential to cause significant impacts on such refuge, sanctuary, or area. Areas of high biological sensitivity include, but are not limited to, areas of known ecological importance, whale and marine mammal mating and calving/pupping areas, and fish and invertebrate spawning and nursery areas recognized as being limited or unique and vulnerable to perturbation; these areas can occur in bays, estuaries, near shore, and far offshore, and may vary seasonally. No permanent facilities or devices would be constructed or installed. Covered actions do not include drilling of resource exploration or extraction wells, use of large-scale vibratory coring techniques, or seismic activities other than passive techniques.

Rationale for determination:

DOE is proposing to authorize the use of federal funds by Ocean Renewable Power Company, LLC (ORPC) to develop models for the design of a mooring system for their marine hydro kinetic OCGen™ Pre-Commercial Turbine Generator Unit (TGU) and to verify the models by deployment of an experimental version of the mooring system in the field.

Previous NEPA determinations have been conducted for all tasks of the project. All listed tasks with the exception of 7.0 have been completed. This NEPA determination will review ORPC's proposed changes which are reflected in Task 7.0 of the current SOPO. The primary change is the location where deployment and testing would occur.

As was originally proposed for Tasks 7.0, ORPC would design a mooring system for their OCGen TGU power system, moor a prototype version of the device onto the sea floor, and conduct monitoring to determine the effectiveness of the anchoring and cable system. The prototype unit would be comprised of one to four "stacked" TGUs constructed to mimic the behavior of a full size OCGen power system - but without a generator or power control electronics. This system would not produce electricity but the turbines blades would rotate freely. The mooring assembly consists of four 35' long legs of 1.5 inch stud link chains and two 23' long x 10' wide concrete clump weight anchors. Data output from the unit would be transmitted to an on-shore station via an existing single underwater power and data.

While the unit is in the water, ORPC would monitor for potential environmental impact of the moorings to the site. A comparison of post-deployment passive geophysical surveys would be conducted to determine if the mooring or operation of the project has had any measurable effect on the marine sediment distribution.

The unit would be deployed and tested for a two to three month period and upon completion it and the mooring system would be removed.

The original site was off Shackford Head in Cobscook Bay off the coast of Eastport, Maine. The new proposed site is the former location of ORPC's TidGen demonstration project, also in Cobscook Bay, approximately one nautical mile from the originally proposed OCGen site. ORPC received a FERC License and a Finding of No Significant Impact for

DOE/EA-1916 for their TidGen deployment and testing activities at this location. The site is properly marked on National Oceanic and Atmospheric Administration (NOAA) charts and Private Aids to Navigation are installed to minimize conflicts with existing marine uses.

The New England district of the Army Corps of Engineers (Corps) 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 has issued a Maine General Permit (NAE-2014-00101) on March 31, 2014.

The National Marine Fisheries Service (NMFS) was contacted to reinitiate Endangered Species Act consultation requirements. In an email dated March 17, 2014, NMFS concurred that relocated the unit would not introduce any new or additional effects outside those considered in the March 2012 concurrence letter. This letter concurred with findings that the proposed project "may affect, but are not likely to adversely affect" the Atlantic salmon and/or Atlantic sturgeon. 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 and protected under the Marine Mammal Act.

ORPC has also received email responses from the following agencies indicating no objections to the OCGen Project and its newly proposed test site:

- \* Maine Department of Environmental Protection
- \* United States Coast Guard
- \* NOAA Office of Protected Resources
- \* NMFS Habitat Conservation Division

Although the technology and testing parameters are different for the new proposed location, the new proposed site is only one nautical mile away the original location. Impact analysis from the original site and for the testing of the TidGen technology at the new site have indicated that impacts to the human and natural would be less than significant. Based on this and the above information, DOE has determined that this project is consistent with actions covered under DOE CX B5.25 (Small-scale renewable energy research and development projects and small-scale pilot projects located in aquatic environments); and therefore is 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:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Insert the following language in the award:

You are required to:

ORPC is required to adhere to all conditions of the US Army Corp's Maine Programmatic General Permit #NAR-2014-00101; including general conditions #1-7 outlined in their permit.

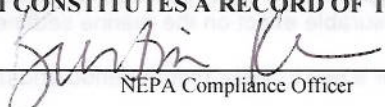
ORPC is required to remove all structures and associated equipment of this project from the site no later than December 31, 2014.

Note to Specialist :

Laura Margason - April 24, 2014

This NEPA Determination requires a tailored NEPA provision.

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

NEPA Compliance Officer Signature:   
NEPA Compliance Officer

Date: 4/29/2014

**FIELD OFFICE MANAGER DETERMINATION**

Field Office Manager review required