FINDING OF NO SIGNIFICANT IMPACT
FOR THE ISSUANCE OF AN INCIDENTAL HARASSMENT AUTHORIZATION
TO OCEAN RENEWABLE POWER COMPANY MAINE, LLC (ORPC)
TO TAKE MARINE MAMMALS BY HARASSMENT INCIDENTAL
TO PILE DRIVING IN COBSCOOK BAY, MAINE

NATIONAL MARINE FISHERIES SERVICE

BACKGROUND

The National Marine Fisheries Service (NMFS) received an application from Ocean Renewable Power Company Maine, LLC (ORPC), requesting an incidental harassment authorization (IHA) to take small numbers of marine mammals, by Level B harassment, incidental to pile driving activities in Cobscook Bay, Maine. Pursuant to the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1361 *et seq*.), authorization for incidental taking shall be granted provided that NMFS: (1) determines that the action will have a negligible impact on the affected species or stocks of marine mammals; (2) finds the action will not have an unmitigable adverse impact on the availability of those species or stocks of marine mammals for taking for subsistence uses; and (3) sets forth, where applicable, the permissible methods of taking, other means of affecting the least practicable impact on affected species and stocks and their habitat, and requirements pertaining to the mitigation, monitoring, and reporting of such takes.

In accordance with the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq*.), NMFS completed an Environmental Assessment (EA) titled "*Issuance of an Incidental Harassment Authorization to Ocean Renewable Power Company Maine, LLC (ORPC) to Take Marine Mammals by Harassment Incidental to Pile Driving in Cobscook Bay, Maine*."

This EA incorporates the Federal Energy Regulatory Commission's (FERC) and the U.S. Department of Energy's (DOE) EA (FERC and DOE, 2012) pursuant to 40 CFR § 1502.21 and NOAA Administrative Order (NAO) 216-6 § 5.09(d).

NMFS has prepared this Finding of No Significant Impact (FONSI) to evaluate the significance of the impacts of NMFS' action. It is specific to Alternative 2 in the EA, identified as the Preferred Alternative. Under this alternative, NMFS would issue an IHA with required mitigation, monitoring, and reporting measures. Based on NMFS' review of ORPC's proposed activities and the measures contained in Alternative 2, NMFS has determined that no significant impacts to the human environment would occur from implementing the Preferred Alternative.

ANALYSIS

NAO 216-6 contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 CFR § 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below this section is relevant to making a FONSI and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans (FMP)?

Response: NMFS does not anticipate that either ORPC's proposed action (i.e., pile driving) or NMFS' proposed action (i.e., issuing an IHA to ORPC) would cause substantial damage to ocean and coastal habitats. The proposed NMFS action would authorize Level B harassment of marine mammals, incidental to pile driving activities occurring non-continuously for 7-12 days in Cobscook Bay, Maine.

NMFS believes that with the proposed mitigation and monitoring measures in place (as detailed in the proposed IHA *Federal Register* notice), activity conducted under the requirements of the IHA would have no more than minimal adverse impacts to fish or invertebrates and their habitats, and would have no potential for population-level impacts to any fish or invertebrate species. These temporary acoustic activities would not affect physical habitat features, such as substrates and water quality. The Magnuson-Stevens Fishery Conservation and Management Act (MSFCA) governs marine fisheries management in waters within the U.S. Exclusive Economic Zone, and requires federal agencies to consult with NMFS with respect to actions that may adversely impact Essential Fish Habitat (EFH). NMFS Northeast Region is working with the applicant and FERC to provide EFH conservation recommendations.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: NMFS does not expect either ORPC's proposed action or NMFS' proposed action (i.e., issuing an IHA to ORPC that authorizes Level B harassment) to have a substantial impact on biodiversity or ecosystem function within the affected environment.

NMFS' EA incorporated FERC and DOE's EA by reference to analyze the potential for the survey activity to affect other ecosystem features and biodiversity components, including fish, invertebrates, seabirds, and sea turtles. NMFS expects that any direct, indirect, or cumulative effects of the action would not result in a substantial impact on biodiversity or ecosystem function. Most effects are considered to be short-term, temporary in nature, and minimal, and would be highly unlikely to affect normal ecosystem function or predator/prey relationships; therefore, there would not be a substantial impact on marine life biodiversity or on the normal function of the marine environment within the area affected by the proposed activity.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: NMFS does not expect either ORPC's proposed action or NMFS' proposed action (i.e., issuing an IHA to ORPC) to have a substantial adverse impact on public health or safety. The proposed pile driving would occur during daylight hours near the center of Cobscook Bay. The constant monitoring for marine mammals and other marine life during pile driving operations effectively eliminates the possibility of any humans being inadvertently exposed to levels of sound that might have adverse effects. Although the conduct of the activity may carry some risk to the personnel involved (i.e., boat or mechanical accidents during operation), the applicant and those individuals working with the applicant would be required to be adequately trained or supervised in performance of the underlying activity to minimize such risk to personnel. Pile driving is not expected to have any adverse impacts on traffic and transportation, as construction would occur during daylight hours for a limited period of time over a small geographic area. Also, there is little risk of exposure to hazardous materials or wastes, risk of contracting diseases, or risk of damage from a natural disaster.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: NMFS has determined that the proposed activity may result in some Level B harassment (in the form of short-term and localized changes in behavior) of small numbers, relative to the population sizes, of four species of marine mammals, none of which are listed under the Endangered Species Act (ESA; 16 U.S.C. 1531 *et seq*.). The EA evaluates the affected environment and potential effects of NMFS' (i.e., issuing an IHA to ORPC) and ORPC's actions (i.e. pile driving), indicating that only the acoustic activities have the potential to affect marine mammals in a way that requires authorization under the MMPA. The following mitigation and monitoring measures are expected to minimize potential adverse effects to protected species:

(1) 500-m exclusion zone;
(2) shut-down and delay procedures;
(3) soft-start procedures;
(4) visual monitoring by Protected Species Observers (PSOs); and
(5) hydroacoustic monitoring.

Taking these measures into consideration, responses of marine mammals from the preferred alternative are expected to be limited to temporary avoidance of the area around the pile hammer and short-term behavioral changes, falling within the MMPA definition of "Level B harassment."

NMFS does not anticipate that marine mammal take by injury (Level A harassment), serious injury, or mortality would occur and expects that harassment takes would be at the lowest level practicable due to the incorporation of the mitigation measures required by the IHA. Numbers of individuals of all marine mammal species taken by harassment are expected to be extremely small (relative to species or stock abundance), and the take is anticipated to have a negligible impact on any species or stock. The impacts of the survey on marine mammals are specifically related to acoustic activities, and these are expected to be temporary in nature, negligible, and would not result in substantial impact to marine mammals or to their role in the ecosystem. FERC and DOE's EA addresses potential effects to other marine life, such as birds, fish, and invertebrates. With conservation recommendations, and mitigation and monitoring measures in place, any effects to marine life should be minimal.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: The primary impacts to the natural and physical environment are expected to be acoustic and temporary in nature (and not significant), and not interrelated with significant social or economic impacts. Issuance of the IHA would not result in inequitable distributions of environmental burdens or access to environmental goods.

NMFS has determined that issuance of the IHA will not adversely affect low-income or minority populations. Further, there will be no impact of the activity on the availability of the species or stocks of marine mammals for subsistence uses. Therefore, no significant social or economic effects are expected to result from issuance of the IHA or the proposed activity.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: The effects of this action on the quality of the human environment, that is, NMFS' issuance of an IHA for the take of marine mammals incidental to pile driving, are not highly controversial. NMFS will address public comments on the proposed IHA in a *Federal Register* notice. Specifically, there is not a substantial dispute about the size, nature, or effect of potential impacts from NMFS' proposed action or ORPC's proposed pile driving.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: NMFS' limited action of issuing an IHA would only authorize Level B harassment of marine mammals during 7-12 days of pile driving within Cobscook Bay, and would not result in substantial impacts to unique areas. Detailed information about the affected environment, marine mammals and other marine life, and all potential adverse direct, indirect and cumulative impacts related to the proposed action are provided in the EA and material incorporated by reference.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The potential risks of pile driving are not unique or unknown, nor is there significant uncertainty about impacts. NMFS has issued numerous IHAs for pile driving activities in numerous locations and conducted NEPA analysis on those projects. Each of these projects required marine mammal monitoring and monitoring reports have been reviewed by NMFS to ensure that activities have a negligible impact on marine mammals. In no case have impacts to marine mammals, as determined from monitoring reports, exceeded NMFS' analysis under the MMPA and NEPA. Therefore, the effects on the human environment are not likely to be highly uncertain or involve unique or unknown risks.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: Issuance of an IHA to ORPC is not related to other actions with individually insignificant, but cumulatively significant impacts. Currently, there are no other incidental take

authorizations specifically for Cobscook Bay. ORPC's proposed Cobscook Bay tidal energy project and the Half Moon Cove Project are planned for the future. The environmental effects of ORPC's long-term project have been analyzed in FERC and DOE's EA and are incorporated here by reference (FERC and DOE, 2012). The Half Moon Cove Project would involve the construction of a dam connecting Moose Island (Eastport, Maine) to Perry, Maine. Although the effects of this proposed project are uncertain, the limited action of ORPC's pile driving activities would occur over a short period of time and would likely not overlap with the Half Moon Cove Project construction. Any future authorizations would have to undergo the same permitting process and would take ORPC's pile driving activities into consideration when addressing cumulative effects.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: The proposed activity is not likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic places or cause loss or destruction of significant scientific, cultural, or historical resources.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: The proposed action cannot be reasonably expected to result in the introduction or spread of a non-indigenous species. The spread of non-indigenous species generally occurs through ballast water or hull attachment. Support vessels used during construction would likely be small, local vessels that do not make trans-ocean trips. As such, no non-indigenous species are likely to enter Cobscook Bay through support vessels used during the specified activity.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or does it represent a decision in principle about a future consideration?

Response: The proposed action would not set a precedent for future actions with significant effects or represent a decision in principle. Each MMPA authorization applied for under 101(a)(5) must contain information identified in NMFS' implementing regulations with no exceptions. NMFS considers each activity specified in an application separately and, if it issues an IHA to the applicant, NMFS must determine that the impacts from the specified activity would result in a negligible impact to the affected species or stocks.

NMFS has issued many authorizations for similar pile driving activities. A finding of no significant impact for this action, and for NMFS's issuance of an IHA, may inform the environmental review for future projects but would not establish a precedent or represent a decision in principle about a future consideration.

13) Can the proposed action reasonably be expected to threaten a violation of any Federal, State, or local law or requirements imposed for the protection of the environment?

Response: Issuance of the proposed IHA would not violate any federal, state, or local laws for environmental protection. The applicant consulted with the appropriate federal, state, and local

agencies during the application process and would be required to follow associated laws as a condition of the IHA.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: The proposed action allows for the taking, by incidental harassment, of marine mammals during the proposed pile driving activities. NMFS has determined that marine mammals may exhibit behavioral changes such as avoidance of or changes in foraging patterns within the action area. However, NMFS does not expect the authorized harassment to result in significant cumulative adverse effects on the affected species or stocks. As discussed in response to question 9, there are two known future projects that may take place near the proposed action area. However, because pile driving impacts would be short term and localized and each Holder is required to comply with mitigation and monitoring measures designed to minimize exposure and impacts, no substantial adverse cumulative impacts are anticipated. Pile driving activities and the issuance of an IHA are not expected to result in any significant cumulative adverse effects on target or non-target species incidentally taken by harassment.

Cumulative effects refer to the impacts on the environment that result from a combination of past, existing, and reasonably foreseeable human activities and natural processes As evaluated in the EA, human activities in the region of the proposed action include vessel traffic, commercial fishing, marine resource harvesting, and aquaculture. Those activities, as described in the EA, when conducted separately or in combination with other activities, could adversely affect marine species in the proposed action area. Because of the limited amount of pile driving and proposed mitigation and monitoring measures, the action would not result in synergistic or cumulative adverse effects that could have a substantial effect on any species.

The proposed action does not target any marine species and is not expected to result in any individual, long-term, or cumulative adverse effects on the species incidentally taken by harassment due to these activities. The potential temporary behavioral disturbance of marine species might result in short-term behavioral effects for these marine species within the ensonified zones, but no long-term displacement of marine mammals, endangered species, or their prey is expected as a result of the proposed action conducted under the requirements of the IHA. Therefore, NMFS does not expect any cumulative adverse effects on any species as a result of pile driving activities.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting EA titled "*Issuance of an Incidental Harassment Authorization to Ocean Renewable Power Company Maine, LLC (ORPC) to Take Marine Mammals by Harassment Incidental to Pile Driving in Cobscook Bay, Maine,*" and documents that it references, NMFS has determined that issuance of an IHA to ORPC for the take, by Level B harassment only, of small numbers of marine mammals incidental to pile driving activities in accordance with Alternative 2 in NMFS' 2012 EA will not significantly impact the quality of the human environment, as described in this FONSI, in the EA, and in FERC and DOE's EA.

In addition, all beneficial and adverse impacts of the action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact

Statement for this action is not necessary. The EA thereby provides a supporting analysis for this FONSI.

James H. Lecky,
Director, Office of Protected Resources,
National Marine Fisheries Service

FEB 23 2012
Date