UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

February 17, 2009

Mary T. McCann
Manager of Environmental Services
Devine Tarbell & Associates, Inc.
970 Baxter Boulevard
Portland, ME 04103

RE: ORPC Alaska's Cook Inlet Tidal Energy Project

Dear Ms. McCann:

The National Marine Fisheries Service (NMFS) has reviewed the baseline study plans for the Ocean Renewable Power Company (ORPC) Alaska's proposed Cook Inlet Tidal Energy Project. ORPC is preparing a draft license application under the Federal Energy Regulatory Commission's (FERC) Pilot Licensing procedures for ocean kinetic projects. The draft study plans involve baseline and monitoring studies of fish resources, tidal current velocities, noise, Beluga whales, and marine geophysical conditions.

Following collection of baseline data, ORPC proposes to deploy one turbine generating unit (TGU) into one of the pilot sites in Cook Inlet (Fire Island or Cairn Point) during the summer of 2011. Monitoring studies would be conducted on the performance and effects of this unit for one year before installing up to five TGUs in a phased approach during the five to seven year long Pilot License term. Upon the end of the Pilot License term, ORPC would be required to either remove the project infrastructure or apply for a conventional 30 to 50 year hydropower license using one of FERC's three licensing procedures.

NMFS is entrusted with federal jurisdiction over marine, estuarine, and anadromous fishery resources under statutory authorities originating in the Anadromous Fish Conservation Act, the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Pacific Salmon Treaty Act. Section 305(b) of the MSA requires federal agencies to consult with NMFS on all actions that may adversely affect Essential Fish Habitat (EFH). If the proposed action is likely to adversely affect EFH, NMFS is required to make EFH Conservation Recommendations, which may include measures to avoid, minimize, mitigate or otherwise offset adverse effects. Section 10(j) of the Federal Power Act (FPA) authorizes NMFS to recommend license conditions necessary to protect, mitigate damage to, and enhance fish and wildlife habitat affected by the project. Section 18 of the FPA provides NMFS authority to issue mandatory fishway prescriptions.

In addition, NMFS has responsibilities related to FERC proceedings derived from the Fish and Wildlife Coordination Act, the Clean Water Act, the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA).

ESA and MMPA

NMFS' Protected Resources Division (PRD) is responsible for reviewing the potential project's effects on species protected by the ESA, particularly the Cook Inlet beluga whale population, and marine mammals that are protected under the MMPA. ORPC has indicated that, upon FERC's designation of ORPC as their representative for ESA consultation, they will begin consultation with NMFS under the ESA and MMPA. PRD has provided ORPC with recommendations relating to proposed monitoring of Cook Inlet belugas and other marine mammals in the action area. Per Section 7 of the ESA, PRD will also review FERC's determination of effects and ORPC's Biological Assessment of the project's effects on species under ESA protection.

Baseline Fisheries Study Plan

ORPC proposes using split-beam acoustic techniques in GPS guided mobile surveys to gather information on fish spatial distributions and abundance and to estimate individual fish target strength. Multiple transects will be surveyed across two pilot project areas. This acoustic data will be supplemented with fish collections using trawl net and possibly gill nets in the proposed pilot project area. Split-beam scientific echo sounders will use 200 KHz down-looking narrow beam transducers with low side lobes to survey the entire water column and a second transducer will be oriented side-looking to sample the near surface of the water column. Transects will be sampled at each pilot project site twice monthly in 2009 during ice-free conditions.

The draft study plan as written should allow the basic determination of fish presence and use of the project area, at least during the ice-free months. However, the plan lacks enough detail for NMFS to provide a thorough and objective review of the likelihood of the study yielding the information necessary to assess the project's potential impacts to fish. The study plan does not have a clear and precise objective and is not detailed enough to determine the precision and accuracy of the study's findings relative to the proposed project's effects on fish. The plan would be strengthened by including:

1) Specific transect locations, lengths and the number of transects.
2) A more specific description of the proposed methodology for acoustic signal-truthing via net sampling (trawl or gillnet) (e.g., number, length and location of trawl transects and mesh size, target species, net depth, net length, and timing and length of net soak for gillnet sampling).
3) The target dates and coverage of operations (we recommend operations cover as much of the ice-free period as possible).
4) A description of target species and life stages.

Additionally, we recommend the study plan:

1) Explore existing and potential new methods of winter sampling to enable the documentation of baseline conditions during all seasons. While NMFS

understands the difficulties of operating in Cook Inlet ice, year-round baseline condition information is needed to fully understand the potential impacts of project operations on fish and marine mammals. Innovative and creative solutions to winter sampling could include using unmanned sonar probes, analyses of predator feces to determine prey composition, or winter aerial surveys for whales and other predators of fish species known to inhabit the project area during winter. NMFS continues to investigate methods of winter sampling and will share all ideas and leads with ORPC.

2) Stratify sampling by tidal cycle because such cycles are a key factor influencing species behavior in Cook Inlet.
3) Document seasonal variation during the ice-free period to acknowledge the great temporal differences in spawning runs, smolt outmigration, and movement of marine species and target species life history stages.
4) Provide for the collection of at least two seasons of baseline survey data in order to obtain even a minimal estimate of annual variability

Addressing these information needs would result in a comprehensive, detailed study plan for use in both the pre-TGU deployment baseline studies and the post-TGU deployment monitoring studies.

NMFS also suggests that ORPC consider, in addition to pre-deployment wide-area general surveys, close range, site-specific surveys of the proposed initial TGU deployment site. This could be done using imaging sonar (such as DIDSON) mounted on an anchored TGU frame or other similar structure that mimics the proposed TGU structure to determine the reaction of fish and marine mammals to the physical structure. These methods could also be adapted to the post-deployment monitoring plan and include noise and electromagnet field monitoring.

We also caution against the selection of Cairn Point for a pilot project due to its importance as a migratory corridor for all species entering and exiting Knik Arm, including Cook Inlet beluga whales. We consider Cairn Point to be a sensitive area, which is not appropriate as a site for a pilot project based on FERC's guidance on the use of its pilot licensing procedures for ocean kinetic projects.

If you have any questions regarding this project, please contact Sue Walker at 907-586-7646 or susan.walker@noaa.gov.

Sincerely,

Robert D. Mecum
Acting Administrator, Alaska Region

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