

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Igiugig Village Council**STATE:** AK

**PROJECT TITLE:** Next Generation MHK River Power System, Optimized for Performance, Durability and Survivability

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|-------------------------------|---------------------|------------|
| DE FOA 0001310                          | DE-EE0007348                  | GFO-0007348-003     | GO7348     |

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

**CX, EA, EIS APPENDIX AND NUMBER:**

Description:

**A9 Information gathering, analysis, and dissemination** Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

**B3.6 Small-scale research and development, laboratory operations, and pilot projects** Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to the Igiugig Village Council (IVC) to implement, test and validate system improvements which have been identified through IVC and Ocean Renewable Power Company's (ORPC) prior experience of constructing, installing, operating and maintaining the RivGen® Power System in the Kvichak River at Igiugig, Alaska.

The proposed IVC project would include 15 Tasks. DOE completed two previous NEPA determinations for this project (GFO-00007348-001, CX A9, 3/14/2016; GFO-00007348-002, CX A9, B3.6, 7/27/2018). Those determinations reviewed all tasks (1-15) with the exception of sub-task 11.2.

IVC is proposing modifications to the SOPO. These modifications propose to eliminate sub-task 11.2. Further they would re-number sub-task 11.3 (which was previously reviewed) to become subtask 11.2. Finally they have added a new sub-task, 14.2, and renumbered the previously reviewed sub-tasks 14.2 to 14.6 as 14.3 to 14.7. This review is for the final remaining sub-task which has not been reviewed, the new sub-task 14.2.

The RivGen® Power System is a hydrokinetic horizontal access turbine approximately 19.5 meter long by 3.4 meter high by 13.1 meter wide tidal energy power device. The device contains a vertical fairing over the generator, mounted in the center of the device. It also contains a horizontal fairing located below the turbines.

Sub-task 14.2 would include testing of device deployment and retrieval. For the deployment and retrieval tests, ORPC would conduct in water tests to verify system reliability, stability, and operational requirements. The location for the testing, which had previously not been determined, would be the Kvichak River (the same location as the actual deployment). Deployment of the device on the Kvichak River, in Task 14, was previously reviewed in NEPA determination GFO-00007348-002.

ORPC has entered into a Memorandum of Understanding with the Igiugig Village Council to act on IVC's behalf with

respect to permitting. ORPC has obtained, or is in the process of obtaining all necessary permits, including permits from USACE, AK Department of Natural Resources, and FERC.

In 2015, ORPC completed a biological evaluation to evaluate potential impacts to threatened or endangered species (T&E species) as well as an Essential Fish Habitat (EFH) assessment, for the earlier deployments of the project and the proposed project site (the Kvichak River). The BE concluded that the project is possibly within the range of the migration route of the Steller's eider, which was listed as threatened in 1997. During informal consultation with the U.S. Fish and Wildlife Service (USFWS) it was determined that the project would not impact the Stellar eider as the project would be on or under the river and the eider, if migrating through the area, would fly over and not land on or near the vicinity of the river. The USFWS determined that additional consultation with DOE regarding the project was not necessary. The EFH assessment determined no effect to Essential Fish Habtat. The Igiugig Village Council (IVC) has also consulted with the USFWS under section 7 of the Endangered Species Act, through which it was determined that no T&E species commonly occur in the vicinity of the project. There have been no actions or changes in circumstances which would require DOE to reinitiate consultation. As such, DOE has determined that the proposed project would have no effect to T&E species or EFH.

## NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Water Power Technology Office

This NEPA determination does NOT require a tailored NEPA provision

Review completed by Roak Parker 3.18.2019

## FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

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

NEPA Compliance Officer Signature:

 Electronically  
Signed By: Kristin Kerwin

NEPA Compliance Officer

Date: 3/20/2019

**FIELD OFFICE MANAGER DETERMINATION**

- Field Office Manager review not required
- Field Office Manager review required

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature: \_\_\_\_\_  
Field Office Manager

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