

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



RECIPIENT: Alaska Village Electric Cooperative, Inc. (AVEC)

STATE: AK

PROJECT TITLE : Marine Energy Feasibility Study for Remote Alaskan Villages

Notice of Funding Opportunity Number

Procurement Instrument Number
DE-EE0010705

NEPA Control Number
GFO-0010705-005

CID Number
GO10705

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.)

B3.2 Aviation activities

Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations.

B3.16 Research activities in aquatic environments

Small-scale, temporary surveying, site characterization, and research activities in aquatic environments, limited to: (a) Acquisition of rights-of-way, easements, and temporary use permits; (b) Installation, operation, and removal of passive scientific measurement devices, including, but not limited to, antennae, tide gauges, flow testing equipment for existing wells, weighted hydrophones, salinity measurement devices, and water quality measurement devices; (c) Natural resource inventories, data and sample collection, environmental monitoring, and basic and applied research, excluding (1) large-scale vibratory coring techniques and (2) seismic activities other than passive techniques; and (d) Surveying and mapping. These activities would be conducted in accordance with, where applicable, an approved spill prevention, control, and response plan and would incorporate appropriate control technologies and best management practices. None of the activities listed above would occur 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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to administer Congressionally Directed Spending to Alaska Village Electric Cooperative, Inc. (AVEC) to evaluate local resources and the techno-economic feasibility of deploying marine energy generation systems in AVEC-served remote Alaskan communities to decrease their dependence on diesel fuel.

Two previous NEPA Determinations (NDs) have been written for this award (GFO-0010705-001: CX A9; 2/29/2024; GFO-0010705-002: CXs A9, B3.2, B3.16; 8/15/2024) reviewing all activities in Tasks 1, 2, 3, and 4, with specific sites requiring further review under Subtask 3.2. Subtask 3.2 in the previous NDs only reviewed communities in Kaltag, AK and Nulato, AK. This ND would review four new communities: Kiana (Kobuk River), Pilot Station (Yukon River), and Upper & Lower Kalskag (Kuskokwim River).

Subtask 3.2 activities would involve final site characterization, field work, and community meetings within selected AVEC communities as well as completion of a supply chain, logistics, and workforce development analysis and a techno-economic feasibility analysis for each community studied. Planning activities under Task 3 would occur at AVEC headquarters in Anchorage, AK, Ocean Renewable Power Company, Inc. (ORPC) headquarters in Portland ME, and ORPC - Alaska in Anchorage, AK.

Subtask 3.2 would involve field work conducted by ORPC near the communities of Kiana (Kobuk River), Pilot Station (Yukon River), and Upper & Lower Kalskag (Kuskokwim River). This ND does not cover the Togiak (Togiak River) community as it requires consultation with National Marine Fisheries Service (NMFS). The proposed activities would include work along the river shoreline during daylight hours. Water velocity profiles, bathymetry measurements, and ice presence characteristics would be obtained in the vicinity of each community. Data would be collected using various methods, including Global Positioning Systems (GPS), an Acoustic Doppler Current Profiler (ADCP) towed at the water surface behind a small vessel, depth sounding by sonar (integrated with the ADCP), and small unmanned aerial system (sUAS or drone) flights to document site conditions. Local motorized skiff operators would be employed for transport and field testing.

Drone operations would consist of flying along the river reach during daylight hours to gather video and photographic information. ORPC would coordinate with regional airports to acquire any necessary permits prior to drone operation. Close coordination with the communities of Kiana (Kobuk River), Pilot Station (Yukon River), and Upper & Lower Kalskag (Kuskokwim River) would also occur prior to the proposed field work to establish parameters surrounding drone use.

The recipient is responsible for ensuring that all activities involving sUAS are compliant with 14 CFR Part 107 or an applicable Certificate of Waiver or Authorization (COA). This includes, but is not limited to, aircraft requirements such as remote pilot-in-command certification, authorities and responsibilities; ensuring the sUAS is in a condition for safe operation; registration; understanding airspace classifications and requirements; and accident reporting (if applicable).

A U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) review lists federally threatened Wood Bison (*Bison bison athabasca*) as potentially occurring within the project area. Wood bison were reestablished as a federally threatened species under section 10(j) of the Endangered Species Act (ESA) as a nonessential experimental population (NEP) in their historical habitat in western and central Alaska. For the purposes of Section 7 of the ESA, NEPs are treated as threatened species when the NEP is located on National Wildlife Refuge (NWR) or National Park (NP) land, and therefore Section 7(a)(1) and the consultation requirements of Section 7(a)(2) of the ESA apply only on NWR and NP lands. Although parts of the project occur on NP and NWR lands, consultation is not required for those locations as the DOE anticipates no effects to any species based on the short duration of the project and use of lookouts. The NMFS also confirmed there would be no effect to these areas in email correspondence with the DOE on May 14, 2025.

The proposed field work would include typical hazards associated with travel to remote communities, working along shorelines, and conducting on-water activities. ORPC has a robust safety program with annual training that includes swift water rescue as well as CPR, AED, and First Aid certification. AVEC and ORPC would implement daily pre-work safety briefings and end of day field reporting exercises during field work. Proper, industry standard protective equipment would be used. All employees would also have the authority to call a "Stop Work" should a safety risk be identified.

DOE has considered potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate adverse impacts on these resources. Nearby lands to the proposed survey areas include privately held Alaska Native Lands. ORPC and AVEC are consulting with regional native corporations prior to initiating project survey work to ensure there are no impacts to any tribal cultural resources.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Subtask 3.2 is approved as described in this NEPA Determination for the following communities: Kiana (Kobuk River), Pilot Station (Yukon River), and Upper & Lower Kalskag (Kuskokwim River).

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Subtask 3.2 for Togiak (Togiak River) community. Field work activities in this community are subject to additional NEPA review.

Include the following condition in the financial assistance agreement:

This project includes the use of small unmanned aerial systems (sUAS). The recipient is responsible for ensuring that all activities involving sUAS are compliant with 14 CFR Part 107 or an applicable Certificate of Waiver or Authorization (COA). This includes, but is not limited to, aircraft requirements such as remote pilot-in-command certification, authorities and responsibilities; ensuring the sUAS is in a condition for safe operation; registration; understanding airspace classifications and requirements; and accident reporting (if applicable).

Notes:

Water Power Technologies Office

This NEPA Determination requires legal review of the tailored NEPA provision.

NEPA review completed by Emma Luther, 05/28/25

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.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically Signed By: **Nicole Serio**
NEPA Compliance Officer

Date: 5/30/2025

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: _____