

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



RECIPIENT: University of Alaska Fairbanks

STATE: AK

PROJECT TITLE : Galena Alaska Microgrid Riverine Hydrokinetics

Notice of Funding Opportunity Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002845	DE-EE0011266	GFO-0011266-002	GO11266

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:

**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 provide funding to University of Alaska Fairbanks (UAF) to develop a replicable community-led current energy research and development project in the Yukon River at Galena, Alaska.

The proposed project was selected under Topic Area 2 (TA2) of DOE's Bipartisan Infrastructure Law (BIL), Section 41006(a)(2): U.S. Tidal Energy Advancement Funding Opportunity Announcement (FOA) (DE-FOA-0002845), Community-Led Tidal and/or Current Energy Planning and Project Execution. DOE previously completed NEPA Determinations (ND) which applied to Budget Period 1 – FOA TA2 Phase 1(GFO-0011266-001; CX A9; 05/02/24). BP1 activities were limited to team formation and site identification. This ND applies to Budget Period 2 – FOA TA2 Phase 2. Further NEPA review for Budget Period 2 – FOA TA2 Phase 3 and Budget Period 3 – FOA TA2 Phase 4 would be required.

**PROJECT DESCRIPTION**

Phase 2 activities would include resource and environmental data collection to support future site and technology selection processes. Sustainable Energy for Galena Alaska (Galena, AK) and UAF (Fairbanks, AK) would provide leadership and project management. City of Galena Power House (Galena, AK) would install heat meters on waste heat plumbing.

Phase 2 activities would include field work conducted near Galena, AK in the Yukon River. The proposed activities would include vessel transects with Acoustic Doppler Current Profilers (ADCPs), multibeam sonar, ADCP bottom mooring, fish observations through ice boreholes, and fish sampling with inclined plane fish trap sand fyke net sampling. Heat metering instrumentation would also be installed on the Galena powerplant waste heat recovery loop.

## IMPACTS ANALYSIS

Fish sampling would occur in August 2026, May to August 2027, and May to August 2028. Winter fish studies would use optical cameras to observe fish in clear water under the ice between November 2026 and May 2027, and between Nov 2027 and May 2028. ADCPs would be deployed in September 2026 and recovered in May 2027. Boat transects and multibeam sonar would occur in August 2026 and August 2027.

Fyke nets and inclined plane traps would be staffed during deployments and occupy an area of approximately 2,500 square feet (ft). Vessel mounted transects would occur from motor boats that would use existing boat ramps for entering and exiting the river. The ADCP mooring measures approximately 4 x 4 x 3 ft. and would be deployed in the main river channel at a water depth of approximately 40 ft.

A U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) review lists federally threatened Wood Bison as potentially occurring within the project area; additionally, no critical habitat occurs in the project area. Migratory birds including Bald Eagles and Golden Eagles may be present within the project area. They are not Birds of Conservation Concern in the area, but special attention would be given to ensure that no animals are affected. Because project activities would be conducted in an aquatic environment, DOE has determined that the proposed project would have no effect on Wood Bison; DOE has also determined no effect on critical habitat as none are present in the project area.

Fyke nets would be checked at least daily to release any nontarget species that may have been entangled. Suspended end chambers would be used in the fyke nets to provide a way for air-breathing animals to breathe until disentanglement and release.

Heat metering equipment would be installed in an existing power plant and would be consistent with activities carried out at the site.

UAF has consulted with the communities and Tribes of Galena, AK including the Tanana Chiefs Conference and Loudon Tribe, and received positive responses to the proposed project activities. Throughout the project, UAF would conduct continual coordination with the communities and Tribes to identify any sensitive resource areas and ensure local resources would not be impacted by the proposed project activities.

The proposed field work would include typical hazards associated motorboat operations. All activities would comply with UAF environmental, health, safety, and risk management policies.

This award would require several permits throughout its completion, which UAF would be responsible for maintaining. Existing permits the recipients have obtained include: (1) an U.S. Army Corps of Engineers permit for data collection in navigable waterways, valid through 2031; (2) an AK Department of Natural Resources permit for deployment of ADCP moorings on the river bottom, valid through spring 2027; (3) a fish habitat permit was issued in 2025 for ADCP surveys and would be extended/renewed as necessary; (4) an aquatic resource permit, valid for 2026. The recipient is responsible for obtaining any additional approvals, authorizations, or permits needed to perform project work.

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.

## NEPA PROVISION

DOE has made a conditional NEPA determination.

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

Budget Period 2 – FOA TA2 Phase 2

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

Budget Period 2 – FOA TA2 Phase 3

Budget Period 3 – FOA TA2 Phase 4

Include the following condition in the financial assistance agreement:

Fyke nets would be checked at least daily to release any nontarget species that may have been entangled. Suspended end chambers would be used in the fyke nets to provide a way for air-breathing animals to breathe until disentanglement and release.

Notes:

Water Power Technologies Office  
NEPA review completed by Alex Colling on 04/20/2026.

**FOR CATEGORICAL EXCLUSION DETERMINATIONS**

The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE’s NEPA Implementing Procedures (June 30, 2025). To fit within the classes of actions listed in Appendix B to 10CFR Part 1021, or Appendix B of DOE’s NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE’s NEPA Implementing Procedures.

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.

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: 4/27/2026

**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: \_\_\_\_\_