

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



RECIPIENT: University of Hawaii

STATE: HI

PROJECT TITLE: National Marine Renewable Energy Center Infrastructure Upgrades

Notice of Funding Opportunity Number
DE-FOA-0002080

Procurement Instrument Number
DE-EE0008955

NEPA Control Number
GFO-0008955-003

CID Number
GO8955

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.)

B5.25 Small-scale renewable energy research and development and pilot projects in aquatic environments

Small-scale renewable energy research and development projects and small-scale pilot projects located in aquatic environments. Activities would be in accordance with, where applicable, an approved spill prevention, control, and response plan, and would incorporate appropriate control technologies and best management practices. Covered actions would not occur (1) within areas of hazardous natural bottom conditions or (2) 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, use of large-scale vibratory coring techniques, or seismic activities other than passive techniques.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to the University of Washington to support the upgrade of existing marine energy testing and research infrastructure located at National Marine Energy Centers (NMECs).

DOE previously completed three NEPA Determinations (NDs) for Tasks 1-11 (GFO-0008955-001, 04/09/2020: A9, B1.31, B2.3, B3.6, B5.15; GFO-0008955-002, 12/07/2021: A9, B3.6, B5.15; GFO-0008955-004, 05/09/2024: A9, B2.3, B2.4) which did not apply to Subtasks 5.2.2 (Install Ancillary Kilo Nalu Equipment) and 5.2.4 (Installation of Docking Station at KNO).

This ND applies to Subtasks 5.2.2 and 5.2.4, which involve upgrades at the Hawaii Marine Energy Center, one of the established NMECs. Activities would be completed through a subcontract with the University of Hawai'i (UH). Administrative and planning activities would occur at UH facilities in Honolulu. Field work would occur at the UH Kilo Nalu Observatory (KNO), a state-permitted offshore research site located on the south shore of Oahu near the UH Kewalo Marine Laboratory.

Task 5.2.2 would involve the purchase and installation of ancillary equipment at KNO. Equipment would consist of a science instrumentation interface module (SIIM) with cabling to support a conductivity, temperature, and depth sensor, acoustic node, and second primary node.

Task 5.2.4 would involve the installation at KNO of the autonomous underwater vehicle (AUV) docking station fabricated in Task 5.2.3.

DOE determined that the proposed project would have no effect on federally listed whale species because the proposed action area is so close to shore that they are not expected to be present. DOE also determined there would be no effect to the federally listed seabird species under U.S. Fish and Wildlife Service jurisdiction that may be present in the action area (band-rumped storm-petrel, Hawaiian petrel, Newell's shearwater, and short-tailed albatross). The proposed project activities would not occur at night and no lighting or structures above water level would be installed as part of the project. Impacts to seabird species would be avoided.

DOE completed informal consultation with the National Marine Fisheries Service (NMFS) per Section 7 of the Endangered Species Act (ESA) to determine potential impacts of the proposed project activities on federally listed species and critical habitats under NMFS's jurisdiction. On 01/24/2025, NMFS concurred with DOE's determination that the proposed project may affect but is not likely to adversely affect the endangered Hawaiian monk seal, threatened Central North Pacific green sea turtle, endangered hawksbill sea turtle, Hawaiian monk seal critical habitat, or essential features of proposed green sea turtle critical habitat.

DOE completed essential fish habitat (EFH) consultation with NMFS per Magnuson-Stevens Fishery Conservation and Management Act Section 305. DOE determined that the proposed action may adversely affect EFH within the action area, with effects minimized through implementation of conservation measures. NMFS concurred with this determination on 02/11/2025, after DOE accepted NMFS' conservation recommendation (Notify NMFS if, during regular inspections, it is revealed that significant displacement of equipment or cables resulted in unavoidable loss of sensitive resources, such as corals, to ensure further damage is avoided).

All conservation measures outlined in the biological evaluation prepared for these consultations and NMFS' EFH concurrence email will be implemented during project activities.

Proposed activities at KNO would present typical hazards associated with open water activities that involve the deployment, maintenance, and removal of instrumentation and mooring systems, including operation of marine vessels. These hazards would be mitigated through adherence to established UH health and safety policies and procedures including training, the use of personal safety gear, and adherence to vessel emergency procedures. All applicable federal, state, and local health, safety, and environmental regulations would be followed.

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.

EERE is aware of the November 12, 2024, decision in *Marin Audubon Society v. FAA*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, EERE has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500-1508, in addition to DOE's procedures/regulations implementing NEPA at 10 C.F.R. Part 1021, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

The recipient will implement the following conservation measures during project activities:

1. The project manager shall designate an appropriate number of competent observers to survey the action area for ESA-listed species.
2. Surveys shall be completed prior to the start of work each day and prior to resumption of work following any break of more than one half-hour. Periodic additional surveys throughout the on-water workday will be conducted.
3. Personnel shall remain alert for marine mammals before and during vessel operations. Operations would not commence if an ESA-listed species is observed within 500 meters (m) of the vessel. If a protected species is sighted within 500 m when performing operations, activity should cease when the animal comes within 250 m of equipment. Work shall not commence again until the protected species is seen to leave the area of its own volition or after 30 minutes have passed since the last sighting.
4. All work shall be postponed or halted when ESA-listed marine species are within 46 m of the proposed work and shall only begin/resume after the animals have voluntarily departed the area. If ESA-listed marine species are noticed

within 46 m after work already has begun, that work may continue only if, in the best judgment of the marine species observers, the activity would not affect the animal(s). For example, divers performing surveys or underwater work would be permissible, whereas operation of heavy equipment is likely not.

5. Special attention would be given to verify that no ESA-listed species are in the area where equipment or material is expected to contact the substrate before that equipment /material may enter the water.

6. All objects would be lowered to the bottom and installed in a controlled manner. This can include the use of buoyancy controls such as the use of cranes, winches, or other equipment that affect positive control over the rate of descent.

7. In-water tethers, as well as mooring lines for vessels and marker buoys, shall be kept to the minimum lengths necessary and shall remain deployed only if needed to accomplish the required task properly.

8. When piloting vessels, vessel operators shall alter course to remain at least 91 m from whales, and at least 46 m from other marine mammals and sea turtles.

9. Vessel speed would be reduced to 10 knots or less when piloting vessels at or within the distance ranges described above from marine mammals and sea turtles. Operators shall be particularly vigilant to watch for turtles at or near the surface in areas of known or suspected turtle activity, and if practicable, reduce vessel speed to 5 knots or less.

10. If, despite efforts to maintain the distances and speeds described above, a marine mammal approaches the vessel, the engine would be put in neutral, as safety permits, until the animal is at least 15 m away, and then slowly move away to the prescribed distance.

11. Marine mammals and sea turtles shall not be encircled or trapped between multiple vessels or between vessels and the shore.

12. No project participant shall attempt to feed, touch, ride, or otherwise intentionally interact with any ESA-listed species.

13. A contingency plan to control any toxic materials would be developed, maintained, and followed. It is noted that no toxic materials are involved with any of the sensors or other equipment proposed here – the only toxic materials present would be fuels associated with vessels supporting deployment/inspection of equipment.

14. Appropriate materials to contain and clean potential spills shall be stored at the work site (including aboard project-related vessels) and be readily available.

15. All project-related materials and equipment placed in the water shall be free of pollutants.

16. The project manager and equipment operators shall perform daily pre-work equipment inspections for cleanliness and leaks. Operations shall be postponed or halted should a leak be detected and shall not proceed until the leak is repaired and equipment cleaned.

17. Fueling of land-based vehicles and equipment shall take place at least 15 m away from the water, preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities.

18. If any excessive turbidity or siltation were to occur from project-related work, it shall be minimized and contained to the greatest extent possible.

19. A plan shall be developed, maintained, and followed to prevent debris and other wastes from entering or remaining in the marine environment during the project.

20. All AUV deployments will have a deployment and retrieval plan to minimize lag time in the water and ensure that the AUV is properly retrieved.

21. To minimize malfunction, prior to operations employing submersibles, a pre-deployment test of all operating systems will be run to ensure that equipment is operating correctly, there are no visually apparent physical defects, and conditions are conducive to operations.

22. To minimize the spread of invasive species, the AUV will be inspected and cleaned of any organic material including algae and other organisms prior to deployment.

23. AUV cameras, if available and practicable, will be used to ensure no presence of ESA-listed species in and around large debris pieces prior to lifting.

24. Project personnel will notify NMFS if, during regular inspections, it is revealed that significant displacement of equipment or cables resulted in unavoidable loss of sensitive resources, such as corals, to ensure further damage is avoided.

Notes:

Water Power Technologies Office (WPTO)
NEPA review completed by Melissa Parker, 03/04/25

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.

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: **Andrew Montano**

NEPA Compliance Officer

Date: 3/4/2025

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: _____