

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



RECIPIENT: Woods Hole Oceanographic Institution

STATE: MA

PROJECT TITLE : A Combined Electric/Magnetic Field Instrument for MHK Environmental Monitoring

Notice of Funding Opportunity Number
DE-FOA-0001418

Procurement Instrument Number
DE-EE0007825

NEPA Control Number
GFO-0007825-004

CID Number
G07825

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 federal funding to the Woods Hole Oceanographic Institution (Woods Hole) to develop and field test a combined electric/magnetic field (EMF) instrument for use in and around marine hydrokinetic sites.

The proposed project would be divided into three Budget Periods, with a Go/No Go decision point between each Budget Period. DOE previously completed three NEPA Determinations (ND) [Budget Period 1 (BP1 – Tasks 1-5) (GFO-0007825-001, exclusions A9 and B3.16, signed 12/06/2016), Budget Period 2 (BP2 – Tasks 6-9) (GFO-0007825-002, exclusions A9 and B3.16, signed 1/18/2018), and Budget Period 3 (BP3 – Tasks 10-11) (GFO-0007825-003, exclusions A9 and B3.16, signed 7/9/2019)]. In BP1, Woods Hole designed, fabricated, lab tested, and field tested the EMF instruments at the Pacific Northwest National Lab (PNNL), in Sequim Bay. In BP2, Woods Hole modified the EMF instruments and again tested them at PNNL. For BP3, Woods Hole proposed to analyze results and perform tests in the field. However, the proposed location for field testing has changed. Therefore, this ND is for BP3 (Tasks 10-11) and the proposed new location.

Project activities in BP3 would include analyzing results from the BP2 field testing, making design modifications based on those results, and then re-fabricating the EMF device based on those modifications. These tasks would occur at the Blake Laboratory at the Woods Hole Oceanographic Institution. Once modified, the device would be field tested at various locations in Nantucket Sound, Massachusetts, near Martha's Vineyard.

The device to be tested would consist of a 17 inch housing that would contain EMF measurement instrumentation that would passively measure EMF fields. In all, five devices would be deployed along the Vineyard Wind transmission cable in Nantucket Sound, at various locations and at various depths. Each deployment would last no more than 24 hours. In conjunction with the deployments, a magnetometer would be towed by a research vessel at a maximum

speed of 5 miles per hour and a maximum depth of 10 meters above the sea floor.

PNNL completed a review of proposed project activities under section 106 of the National Historic Preservation Act as well as Section 7 of the Endangered Species Act. Consultation with the Massachusetts State Historic Preservation Office and the Mashpee Wampanoag Tribe Tribal Historic Preservation Office was completed with a finding of “No Adverse Effect” on 10 February 2025. Additionally, in order to fulfill obligations under Section 7 of the Endangered Species Act, PNNL completed a Biological Resources Review on 18 July 2024 with a finding of “no effects to federally and state protected species, priority habitats, or other biological resources of concern.”

DOE has considered the scale, duration, and nature of proposed activities to determine potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources which would be considered significant or require DOE to consult with other agencies or stakeholders.

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 requirements of the Biological Resources Review must be adhered to, including obtaining a time extension if necessary.

Notes:

Water Power Technologies Office
NEPA review completed by Andrew McClellan, 11 July 2025

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: **Nicole Serio**

NEPA Compliance Officer

Date: 7/11/2025

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: _____