

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



**RECIPIENT:** Woods Hole Oceanographic Institution

**STATE:** MA

**PROJECT TITLE:** Cost-Effective Environmental Monitoring of Offshore Wind Installations with Automated Marine Robotics

**Notice of Funding Opportunity Number**  
DE-FOA-0002237

**Procurement Instrument Number**  
DE-EE0009801

**NEPA Control Number**  
GFO-0009801-002

**CID Number**  
GO9801

**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 Woods Hole Oceanographic Institution (WHOI) to conduct trials of an autonomous surface vehicle (ASV) and an autonomous underwater glider (AUG) for the purposes of developing new robotic technology to monitor offshore wind turbine installations. The project would be completed over two phases, divided into six tasks. This NEPA Determination (ND) only applies to Tasks 2.3-2.5, 3.4-3.6, and 4.2-4.4. The DOE previously completed a NEPA Determination (ND) for development, testing, planning, and determining field testing sights (GFO-0009801-001).

The proposed activities for this award would include trials and testing of the ASV and AUG at WHOI laboratories, including the WHOI Iselin Marine Facility (IMF) and in the coastal waters of Great Harbor (Woods Hole, MA). Proposed activities at the IMF would include validating ASV propulsion using bollard testing and validating the AUG payload sensor operation and data transmission. These activities would occur in open water test tanks. Additional activities in waters of Great Harbor would include ASV and AUG trials to evaluate vehicle control, ASV sensor payload, and AUG acoustic monitoring and optical imagery testing.

The open water locations where testing would occur is within the geographic distribution of 12 listed species under the Endangered Species Act (ESA). Listed species include Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, North Atlantic right whale, fin whale, northern long-eared bat, tricolored bat, roseate tern, and monarch butterfly.

The AUG trials would be conducted during daylight hours in water depths between 12 and 16 meters. The ASV trials would be conducted in the vicinity of the WHOI IMF and Great Harbor. All transit sites would mobilize from active industrial or fishing port facilities and use established vessel traffic lanes or approaches. The proposed open water activities would not include sample collection, take, or seafloor disturbances, and all equipment would be retrieved at the end of operations. The WHOI has incorporated design aspects into the ASV and AUG as measures to avoid potential effects to listed species and essential fish habitat. The ASV operates at speeds below 10 knots and has an inflatable hull; the AUG operates below 5 knots. Additionally, the ASV sensors are designed to detect marine mammals and birds. This would allow the ASV to reduce speed in the vicinity of these potential species and allow them to voluntarily depart. While whale species do not typically occupy the Great Harbor area, if an ESA-listed cetacean is detected to be within 200meters (m) of the ASV, it would reduce speed to allow the cetacean to move outside the area beyond 500m. An attendant chase boat would operate during the trials to allow for additional observation of potential

species in the project vicinity such as sea turtles. The DOE has determined that there would be no effect to ESA listed species, critical habitat, or essential fish habitat from the proposed project activities.

Potential hazards would involve the use and handling of lithium-ion batteries, lab work, and working in a marine environment. Any risks associated with these activities would be mitigated through adherence to established health and safety policies and procedures, and staff training. Additionally, during marine operations, all activities would be conducted in accordance with the U.S. Coast Guard and Bureau of Safety and Environmental Enforcement regulations. All WHOI staff would complete sea survival training and small boat operators training. All WHOI facilities are existing, purpose-built, and currently used for the type and scale of activities proposed. Facility modifications would not be required.

DOE has considered the scale, duration, and nature of the 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 conditional NEPA determination.

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

Tasks 2.3-2.5, 3.4-3.6, and 4.2-4.4

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

Task 5

Notes:

Wind Energy Technologies Office (WETO)  
NEPA review completed by Brittany White, 4/23/2025

## 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.

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: Matthew Blevins

NEPA Compliance Officer

Date: 4/24/2025

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