PMC-ND

(1.08.09.13)

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

RECIPIENT: University of Washington **STATE:** HI

PROJECT TITLE : National Marine Renewable Energy Center Infrastructure Upgrades

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002080	DE-EE0008955	GFO-0008955-002	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.)
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.
B5.15 Small-scale renewable energy research and development and pilot projects	Small-scale renewable energy research and development projects and small-scale pilot projects, provided that the projects are located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

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 renewable energy testing and research infrastructure located at National Marine Renewable Energy Centers (NMRECs).

The proposed project is divided into five tasks, with one task for each of five universities where NMREC research and testing is performed: University of Washington; Oregon State University; University of Alaska, Fairbanks; Florida Atlantic University; and, University of Hawaii. DOE completed one previous NEPA review which covered Tasks 1-4 and all subtasks under task 5 except subtasks 5.1.5, 5.2.2, 5.2.4, and 5.4.2 (GFO0008895.001, CX A9, B1.31, B2.3, B3.6, B5.15, 4/9/2020). Review of the remaining subtasks, all subtasks to be completed by the University of Hawaii (UH), was pending submission of additional information.

UH has now provided information regarding, and is seeking review of, subtasks 5.1.5 (Installation of DMR) and 5.4.2 (Installation and Testing of Field-scale OWC Instrumentation Package). The remaining two subtasks (5.2.2 and 5.2.4 are awaiting submittal by UW to DOE of a Biological Evaluation and completion by DOE of consultation, and thus cannot be reviewed at this time).

Under Subtask 5.1.5 UH would install a Digital Marine Radar (DMR) on a stand on the flat roof of the Kewalo Marine Laboratory. The radar would consist of an approximate 7.5 foot rotating antenna, rotating at a rate of 1 radian per second. The unit would be mounted on a stand and placed on the roof, but protected by the building; that is placed near a wall which would extend up beyond the height of the radar. When operating the unit would have a nominal peak energy usage of 12 kW and would have a pulse repetition frequency of 2 kHz. There are multiple Endangered Species Act listed bird species (listed species) that would be found within the vicinity of the proposed radar

installation. However, given the slow speed on the unit, the protection of the unit on the roof behind a protruding wall, and the low frequency DOE has determined that there would be no effect on listed species.

Under subtask 5.4.2 UH would add instrumentation to an existing oscillating water column (OWC) wave energy converter and then test the instrumentation in a laboratory setting. Instrumentation to be added to the OWC would include the instrumentation suite designed and procured in subtask 5.4.1. Procured instruments would be integrated into the OWC at the UH laboratory in Honolulu, HI. Instrument would then be bench tested within the lab to ensure that they are operating correctly. Once instruments have been individually tested the OWC device will be bench tested to make sure that the device, as integrated, is operating correctly.

All work would comply with existing University health and safety procedures.

NEPA PROVISION

DOE has made a conditional NEPA determination.

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

Task 1 All Subtasks
Task 2 All Subtasks
Task 3 All Subtasks
Task 4 All Subtasks
Task 5.1.1: Wave Measurement Buoys
Task 5.1.2: Procurement of Acoustic Doppler Current Profilers (ADCPs)
Task 5.1.3: Inspection-class ROV Procurement
Task 5.1.4: Design, Procurement, and Fabrication of Digital Marine Radar (DMR) System
Task 5.1.5 Installation of DMR
Task 5.1.6: Determine relevant regulatory/NEPA considerations
Task 5.2.1: KNO Site Management Plan
Task 5.2.3: Fabrication and Integration of Docking Station
Task 5.2.5: Determine relevant regulatory/NEPA considerations
Task 5.3.1: Development of Motion Reference Unit (MRU)/OrcaFlex Mooring Analysis Methodology
Task 5.3.2: Collect MRU Data at WETS and Compare with Modeling
Task 5.3.3: Determine relevant regulatory/NEPA considerations
Task 5.4.1: Design and Procurement of Field-scale OWC Instrumentation
Task 5.4.2 Installation and Testing of Field-scale OWC Instrumentation Package
Task 5.4.3: Determine relevant regulatory/NEPA considerations

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

Task 5.2.2 Install Ancillary Kilo Nalu Equipment
Task 5.2.4 Installation of Docking Station at KNO

Notes:

Water Power Technologies Office
This NEPA determination does require a tailored NEPA provision.
Review completed by Roak Parker, 12/07/2021

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: Roak Parker Date: 12/7/2021

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

- [x] 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: _____ Date: _____

Field Office Manager