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:** WA

PROJECT TITLE : Towards Parametric Source Functions for Wave Energy Converters

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002415	DE-EE0009959	GFO-0009959-002	GO9959

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.
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 the University of Washington (UW) to upgrade and deploy hydrophone instrumentation which would collect acoustic data generated by wave energy

converters (WECs). All deployments would occur at the PacWave South (PWS) test site.

DOE previously completed one NEPA Determination (ND) (GFO-0009959-001; A9, B3.6; 05/19/2022), which applied to Task 0.0.0, 1.0.0, 2.0.0, and Subtask 3.1.0. This ND (GFO-0009959-002) applies to remaining activities (Subtask 3.2.0, Task 4.0.0, and Budget Period 2) and a Subtask (1.3.0) which would be added to Task 1.0.0.

Activities would involve six deployments of hydrophone instrumentation at PWS. Instrumentation would include five Drifting Acoustic Instrumentation Systems (DAISYs) and a NoiseSpotter®. DAISYs are floating devices which would passively drift during deployment. The NoiseSpotter®, which would have a footprint of approximately 1.5 square meters, would rest on seafloor during deployment.

The first two deployments would be single-day deployments of the NoiseSpotter® to verify performance of the upgrades installed during earlier award activities. A third deployment, which would involve simultaneous deployment of the DAISYs and the NoiseSpotter®, would be conducted to establish a baseline for acoustic data without a WEC being present at the site, verify deployment logistics, and verify equipment upgrades. The remaining three deployments ("WEC surveys") would collect acoustic data while WECs are deployed at PWS. For each WEC survey, DAISYs would be deployed for two 8-hour periods on separate days and the NoiseSpotter® would be deployed for 30 consecutive days. Although activities would involve the collection of acoustic data generated by WECs deployed at PWS, this award would not involve the deployment of a WEC.

Additional activities would include those of an academic, intellectual, and analytical nature. This would include data analysis and creation of mathematical functions derived from acoustic data.

Award activities would involve typical hazards associated with open water activities at the PWS test site, including collisions associated with a water vessel, slipping, falling, drowning, and traumatic injury associated with operation and deployment of heavy equipment. Existing university and corporate health, safety, and environmental policies and procedures would be followed at all facilities, including: personnel training, proper personal protective equipment (PPE), engineering controls, monitoring, and internal assessments.

Prior to this NEPA review, Oregon State University (OSU) applied for a Federal Energy Regulatory Commission (FERC) license to construct and operate PWS. Before the license was issued, the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (FWS) completed reviews of the proposed activities and analyzed the potential impacts PWS would have on federally listed species and critical habitats. After the FERC license was issued, DOE received concurrence from NMFS (05/04/2022) and FWS (06/21/2022) that their respective determinations from the FERC license review may be applied to future DOE-funded activities at PWS, provided that such activities are consistent with the description of activities originally reviewed by NMFS and FWS. DOE has determined that those concurrences apply to activities of this award which would be performed at PWS, so additional consultation with NMFS and FWS is not required.

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 final NEPA determination.

Notes:

Water Power Technologies Office (WPTO)
NEPA review completed by Dan Cahill, 06/28/2022.

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: Kristin Kerwin Date: 7/1/2022

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