PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Oregon State University **STATE:** WA

**PROJECT TITLE :** Advanced Laboratory and Field Arrays (ALFA) for Marine Energy and Lab Collaboration Project (LCP)

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|---|---|---|
| | DE-EE0006816 | GFO-0006816-005 | GO6816 |

**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.) |
| **B3.16 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 Oregon State University and the Northwest National Marine Renewable Energy Center (NNMREC) for their Advanced Laboratory and Field Arrays (ALFA) project. The project's goal is to accelerate the development of next-generation arrays of wave energy conversion (WEC) and tidal energy conversion (TEC) devices through a suite of field-focused R&D projects.

DOE completed four previous NEPA determination for this project (GFO-00006816-001, CX A9, B3.6, 12/17/2014; GFO-00006816-002, CX B3.16, 06/17/2015; and, GFO-00006816-003, A9, B3.6, B3.16, 07/26/2018; GFO-00006816-004, CX A9, B3.16, 01/14/2019). Those determinations reviewed all tasks. Ho0wevere, since that time OSU has proposed changes to subtask 10.1 This review is for those changes only.

Previously, OSU had proposed to conduct research under subtask 10.1 in and around Sequim Bay, at the Pacific Northwest Lab's Marine Coastal Research Center. OSU now proposes to change subtask 10.1 to conduct research in Lake Washington, WA and Agate Pass, WA.

Not part of this project, OSU would deploy and test a cross flow turbine device utilizing the University of Washington research vessel the Russel Davis Light. The research vessel contains a back bay, between the back pontoons, into which a cross flow turbine can be lowered. OSU would test the turbine systems at Lake Washington for multiple hours,

and then conduct approximately 14 days of testing at Agate Pass. In Agate Pass the vessel would be moored in location and the turbine would be activated when currents exceed 1 meter a second. The turbine testing is a United States Navy funded project. In a separate NEPA review the Navy found that the turbine testing would have no effect on Endangered Species Act (ESA) listed species, and issued a Categorical Exclusion (CX) for the testing. The turbine test project would proceed regardless of any DOE action and regardless of whether the DOE project proceeds.

The DOE funded project is limited to deploying monitoring devices near the turbine. The main device would be an AMP sensor, which includes optical and acoustic cameras and hydrophones. The sensor would be attached to the Russel Davis Light in the vicinity of the turbine. In addition, OSU would deploy free drifting fully passive acoustic sensors, known as DAISYs. For more information on both the AMP system and DAISY systems see previous NEPA reviews for this project, as cited above. The monitoring devices would be passive instrumentation with the exception that optical cameras would include lighting necessary for photographing. Like the turbine, the monitoring devices would be first verified in Lake Washington, and then tested in Agate Pass.

DOE is not evaluating or making determinations regarding the turbine deployment as that is a Department of Navy project. DOEs NEPA review is limited to the deployment of the AMP and DAISY environmental monitoring systems. DOE finds that the deployment of those systems would have No Effect on ESA listed species.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

**NEPA PROVISION**

DOE has made a final NEPA determination.

Notes:

Water Power Technologies Office
This NEPA determination does not require a tailored NEPA provision.
Review completed by Roak Parker, 01/26/2022

**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: Roak Parker Date: 1/27/2022

NEPA Compliance Officer

**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: _____ Date: _____

Field Office Manager