

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



RECIPIENT: Oscilla Power

STATE: WA

PROJECT TITLE : Detailed Engineering Design of a Multi-Mode Point Absorber

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002415	DE-EE0009954	GFO-0009954-001	

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.)
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Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Oscilla Power, Inc. (OPI) to develop detailed designs of a wave energy converter (WEC) for utility applications. Designs produced would be of sufficient detail to fabricate a WEC capable of a two-year deployment at PacWave South (Oregon).

Award activities would be carried out in two phases. Phase 1 would involve preliminary design activities and Phase 2 would involve detailed design activities. Award activities would verify that the WEC could perform at annual energy production (AEP) and levelized cost of energy (LCOE) target levels. Award activities would not involve water tank tests or open water deployments.

Phase 1 would consist of project management activities, numerical modeling, and preliminary design and review. Phase 1 would also focus on diversity, equity, and inclusion hiring. OPI would leverage experience from their other DOE-funded efforts to complete these activities efficiently. Oregon State University (Corvallis, OR) would provide assistance in dataset development. The certification body DNV UK Limited Renewables Certification (London, UK) would use this data to determine the design loads. The subsystem preliminary designs would include marine, electrical, hydraulic, and drivetrain system design, with input from Glosten Associates (Seattle, WA), Applied Control Engineering Inc. (Vancouver, WA), Spencer Fluid Power (Kent, WA), and Marine Systems Modeling (Delft, Netherlands), respectively.

Phase 2 would consist of developing final detailed designs from preliminary designs developed during Phase 1. Marine system and drivetrain designs would be developed, including using finite element analysis completed by Sandia National Laboratory (SNL) (Albuquerque, NM). Pacific Northwest National Laboratory (PNNL) (Richland, WA) would perform an environmental risk assessment. Numerical models would be compared to existing WEC data. LCOE estimates would be calculated by the National Renewable Energy Laboratory (NREL) (Golden, CO). A full rendering of the final system would be produced by OPI.

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 (WPTO)
NEPA review completed by Alex Colling, 06/14/22.

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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



Casey Strickland

NEPA Compliance Officer

Date: 6/23/2022

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: _____