

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



RECIPIENT: Pacific Ocean Energy Trust

STATE: OR

PROJECT TITLE : Network Director for the TEAMER Program

Notice of Funding Opportunity Number
DE-FOA-0002012

Procurement Instrument Number
DE-EE0008895

NEPA Control Number
GFO-0008895-040

CID Number
G08895

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.)

A11 Technical advice and assistance to organizations

Technical advice and planning assistance to international, national, state, and local organizations.

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 the Pacific Ocean Energy Trust (POET) to administer the Testing and Access for Marine Energy Research (TEAMER) program. POET would collaborate with a Technical Board (TB) which would include representatives from DOE, DOE National Laboratories, and National Marine Renewable Energy Centers. The primary objective of TEAMER is to provide marine energy (ME) technology developers access to a network of facilities within the U.S. which provide testing and modeling assistance for ME technologies. Developers would apply for assistance through a competitive process.

DOE previously completed NEPA reviews which apply to all tasks. However, under Subtask 3.3.1, POET would conduct periodic rounds of funding, specifically identifying facilities offering assistance for which developers could apply. Applications would be reviewed and selected by POET and the TB. Prior to releasing funds to support any selected application, each application would be subject to NEPA review. Applications would include scope of work, where work would be completed, and who would be responsible for completing work (including assistance provided by TEAMER facilities.)

For this review, POET has identified 15 Technical Support Recipients (TSRs) to receive support through the TEAMER program:

1. Buogra Limited

For this project, Buogra Limited would receive technical assistance from the University of Maine's Advanced Structures and Composites Center. Support activities would include testing of a scaled wave energy converter (WEC) model in a wave basin to assess its hydrodynamic behavior and power performance capacity and validation of numerical simulations against experimental data.

2. Deep Anchor Solutions (DAS)

For this project, DAS would receive technical assistance from the American Bureau of Shipping (ABS). Support activities would include certification of DAS's Deeply Embedded Ring Anchor through the ABS New Technology Qualification process. Qualification activities would include risk assessments and engineering evaluations to

determine if the system meets acceptable performance and safety standards in line with current marine industry practices. ABS would then develop a risk assessment report summarizing the risks, their assessments, and mitigation plans.

3. Hydrokinetic Energy Corp. (HEC)

For this project, HEC would receive technical assistance from ABS. Support activities would include certification of HEC's tidal energy converter through the ABS New Technology Qualification process, focusing on the prototype validation stage based on existing hydrodynamic testing and numerical results. If appropriate, ABS would issue a letter of maturity for the proposed technology.

4. Laminar Scientific Inc. (Laminar)

For this project, Laminar would receive technical assistance from AMOG Consulting. Support activities would include conducting a comparative study of different WEC mooring installation methods versus Laminar's novel WEC mooring method regarding installation cost, labor hours, and equipment needed. AMOG Consulting would also conduct numerical analyses using a hydrodynamics package.

5. Michigan State University (MSU)

For this project, MSU would receive technical assistance from the University of Michigan at their Aaron Friedman Marine Hydrodynamics Laboratory (MHL). Support activities would include conducting a comprehensive evaluation of a novel nonlinear power take-off (PTO) unit in a wave tank setting. MHL staff would manage all aspects of testing, including the installation of the apparatus and sensors, data collection, testing surveillance, and removal of the apparatus.

6. Morlais

For this project, Morlais would receive technical assistance from MarineSitu. Support activities would include the development of an environmental monitoring system for a tidal demonstration zone. MarineSitu would perform all tasks involving data maintenance, review, model building, and model analysis, as well as completion of the test plan, post access report, and questionnaire.

7. Ocean Energy USA LLC (OE)

For this project, OE would receive technical assistance from Sandia National Laboratories (Sandia). Support activities would include conducting model simulations and tank test validation of WEC mooring systems. Sandia would perform all simulations, including pre-processing of input files and post-processing of data, validate all results against the applicant-provided tank test data, interpret all findings, conduct bi-weekly meetings with OE, and provide a summary report of all analysis and conclusions.

8. Ocergy

For this project, Ocergy would receive technical assistance from Sandia. Support activities would include building a WEC simulation of a WEC-augmented autonomous, self-powering, multi-instrumented platform designed to gather pre-deployment data for the development and permitting of offshore renewable energy projects. Sandia would simulate all parameters of interest in all desired sea-states, analyze simulation outputs, generate statistical summaries of variables of interest, and complete reporting requirements.

9. Orbital Marine Power (Orbital)

For this project, Orbital would receive technical assistance from the University of Washington (UW) and MarineSitu. Support activities would include collaborating to create standardized mechanical, electrical, communications, and software interfaces to meet diverse monitoring needs across marine renewable energy project sites. UW would design universal instrumentation mounts that withstand specified design loads, ensuring durability in marine environments. MarineSitu would document power, data, and software requirements for a broad range of possible sensor and document recommended connectors. Both facilities would work together to document other system recommendations for corrosion prevention, biofouling mitigation, and maintenance access.

10. Pacific Northwest National Laboratory (PNNL)

For this project, PNNL would receive technical assistance from UW's Harris Hydraulics: Alice C. Tyler Flume. Support activities would include leading the testing of a new method to monitor for wildlife collisions with turbines using blade-integrated strain gauges in realistic flow conditions in the flume.

11. PEAK LLC

For this project, PEAK would receive technical assistance from the National Renewable Energy Laboratory (NREL) and Sandia. Support activities would include creating a technology development advisory that provides specific prioritized recommendations for a technology development plan for the successful development and commercialization of PEAK's WEC technology.

12. Poseidon's Kite, LLC

For this project, Poseidon's Kite would receive technical assistance from the Stevens Institute of Technology's

Davidson Laboratory (DL). Support activities would include performance testing of a WEC in DL's wave tank. DL would be responsible for WEC prototype model installation, generation of specific wave conditions for testing, measurement of the motions of the WEC and forces on the WEC and the PTO system, and data collection, analysis, and reporting.

13. Sitkana

For this project, Sitkana would receive technical assistance from Sandia. Support activities would include completion of a Technology Evaluation and Development Assessment of Sitkana's marine energy technology to identify high-impact research and development areas to guide future development and suggest remediation pathways by which any problem areas can be economically addressed.

14. University of Minnesota Duluth (UMD)

For this project, UMD would receive technical assistance from Michigan Technological University's Wave Facility (MTU Wave). Support activities would include testing of a wall-mounted vertical oscillating surge WEC. MTU Wave would assist in integrating UMD's WEC technology into the wave tank's data acquisition system, collaborate to design and execute a test plan, assist with data organization, post-processing, and analysis, and contribute to a final report.

15. Wavepiston A/S

For this project, Wavepiston would receive technical assistance from Sandia and NREL. Support activities would include providing a Technology Evaluation and Development Assessment to critically review Wavepiston's technology performance drivers and improvement opportunities from an innovative and holistic perspective.

All TSRs would receive support from one or more facilities within the TEAMER facility network. Prior to admitting a new facility into the network, the facility and its capabilities would be reviewed by POET and the TB. All selections of additional facilities, facility capabilities (i.e., type of support offered,) activities, and TSRs would be subject to additional NEPA review.

DOE has considered the scale, duration, and nature of 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.

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 conditional NEPA determination.

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

All tasks are approved; however, selection of additional facilities, new activities, and Technical Support Recipients (TSRs) are subject to additional NEPA review.

The following TSRs are approved to receive technical support for activities proposed in the applications that were part of this review:

1. Buogra Limited
2. Deep Anchor Solutions
3. Hydrokinetic Energy Corp.
4. Laminar Scientific Inc.
5. Michigan State University
6. Morlais
7. Ocean Energy USA LLC
8. Ocergy
9. Orbital Marine Power
10. Pacific Northwest National Laboratory
11. PEAK LLC

- 12. Poseidon's Kite, LLC
- 13. Sitkana
- 14. University of Minnesota Duluth
- 15. Wavepiston A/S

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

Selections of additional facilities, new activities, and TSRs. Such additions are subject to additional NEPA review. All technical support activities must be completed by pre-approved facilities and must be the type of work which a signed NEPA Determination applies to.

Notes:

Water Power Technologies Office (WPTO)
NEPA review completed by Melissa Parker, 04/11/25

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: _____



Andrew Montano

NEPA Compliance Officer

Date: 4/11/2025

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: _____