



RECIPIENT: Pacific Ocean Energy Trust

STATE: OR

PROJECT TITLE: Network Director for the TEAMER Program

| Notice of Funding Opportunity Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|--------------------------------------|-------------------------------|---------------------|------------|
| | DE-EE0008895 | GFO-0008895-049 | GO8895 |

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:

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.

Project activities included in this review would be carried out in facilities previously approved for the TEAMER network. Any facility that requests to join the network or modify their existing support capabilities is subject to additional NEPA review in addition to a separate review conducted by POET and the TB. Similarly, any Technical Support Recipients (TSRs) have to be approved for work at one of the approved TEAMER facilities by TEAMER technical board before submitting an EQ1.

For this review, POET has identified eighteen (18) TSRs to receive support through the TEAMER program:

1. Accumulated Ocean Energy, Inc. would work with Oregon State University staff at the Hinsdale Wave Research Laboratory in Corvallis, Oregon to conduct wave energy technology tank testing. Wave Energy Technology optimization would also occur through the testing, calibration, and modification of technologies to optimize the system for various sea states and conditions.
2. Aquanits, Inc. would work with the Kelson Marine Company in Portland, ME and the American Bureau of Shipping in Alexandria, VA to improve the performance, reliability, and deployment potential of a tidal turbine system. This effort would include the modeling, analysis, risk assessment, and an independent engineering review of the system.
3. Aquanits, Inc. would work with the Pacific Northwest National Laboratory (PNNL) in Richland, WA to streamline PNNL tide model output extraction and analysis. This effort would also characterize potential tidal stream energy sites in Southeast Alaska for future studies.
4. Azura Wave Power would work with the National Laboratory of the Rockies (NLR) in Golden, CO to investigate whether capture width of the Azura wave energy converter (WEC) can be improved by imposing additional restraints. The study will also investigate the use of WEC pitch motion to capture energy from, in addition to float rotation.
5. BladeRunner Energy, Inc. would work with NLR in Golden, CO to conduct numerical simulations that would provide insight into resource availability in arctic rivers subject to surface ice build-up. The project would also include the optimization of blade geometry to improve power extraction from arctic rivers that are subject to freezing conditions.
6. California Polytechnic State University would work with the PNNL in Richland, WA and the University of Hawaii,

Manoa in Honolulu, HI develop a high-resolution wave model to for the Cal Poly Pier to better understand the wave resource and site characteristics. The project would generate a fine-resolution 15-year wave hindcast model covering wave activity from 2011 to 2025. It would also validate the model using available datasets from wave buoys and remote sensing and assessing wave resource.

7. Cornell University staff would work with would be tested at one of two Wave Energy Converter SIMulators (WEC-Sims) facilities either at NLR in Golden, CO or SNL in Albuquerque, NM. The project would refine the geometry and hydrodynamic properties of point absorbers and oscillating surge WECs to match site-specific wave conditions, maximizing power capture through resonance. The project would also enable optimized WECs to integrate seamlessly into hybrid offshore systems, such as floating wind turbines or oil platforms.

8. Re Vision Consulting would complete a techno-economic analysis at their offices in Sacramento, CA. The effort would include benchmarking their deeply embedded ring anchor technology against commercially mature anchoring technologies. The study would also utilize validated numerical modeling tools and cost estimation frameworks to assess leveled lifecycle costs covering fabrication, installation, operations, and decommissioning.

9. Emrgy, Inc. would work with Verdantas Flow Laboratories in Holden, MA to further advance performance testing and model validation of their Vertical Axis Hydrokinetic Turbine technology. Emrgy's vertical axis turbines would also be tested in the Verdantas facility.

10. Equinox Ocean Turbines Besloten Venootschap (Equinox) would complete numerical modeling at 3U Technologies in Conroe, TX and NLR in Golden, CO. The effort would include anchor modeling, electrical and mechanical connector testing and mooring and connection strategy development. The effort would culminate with laboratory-scale testing.

11. Escuela Superior Politécnica del Litoral Polytechnic University staff would work with the Davidson Laboratory at the Stevens Institute in Hoboken, NJ to test an adaptive WEC. The project would use a pre-built 1:40 scale model to conduct electricity generating simulation, stability checks, motion tests, and energy capture trials in a controlled wave tank. The results would help validate a simple, low-cost design suited for remote island microgrids, aquaculture operations, and another Blue Economy uses.

12. HydrokinetX Corporation staff would work with Lloyd's Register North America, Inc. in Houston, TX to conduct a technology qualification of a marine energy-powered rip current drifter technology. The rip current drifter would use electrical power to generate marine/metocean data in a laboratory setting to better inform decision-making across many blue economy applications, such as ocean observation, aquaculture, and unmanned aerial vehicle recharging.

13. Ocean Inertia staff would work at the WEC-Sim facilities either at NLR in Golden, CO or SNL in Albuquerque, NM to conduct numerical modeling of their inertia WEC. The effort would simulate WEC performance in a range of wave conditions. A sensitivity analysis would also be completed to guide design improvements.

14. Poseidon's Kite, LLC staff would work with the Stevens Institute in Hoboken, NJ to test the ability of a wave energy panel (WEP) to absorb energy from ocean waves. The performance of scale models of the WEP would be measured and characterized in Stevens Institute of Technology's Wave Tank to determine the range of performance and efficiency.

15. University of Porto faculty would work with staff at Oregon State University's Large Wave Flume, in Hinsdale in Corvallis, OR. This effort would test the utility of marine energy devices supported by fixed or floating structures that may provide insights into impacts associated with sea bottom scour. The effort would also evaluate the feasibility of optimized dynamic scour protections in offshore foundations that incorporate wave energy technologies.

16. University of Victoria faculty would partner with the WEC-Sim facilities at either NLR in Golden, CO or SNL in Albuquerque, NM to test hybrid wind-wave systems for multiple energy extraction and vibration mitigation. The effort would include development of a WEC-Sim model associated with a floating platform with oscillating water columns to elucidate the system's structural integrity in real world settings.

17. Wave Swell Energy, LLC would partner with faculty at Oregon State University, Hinsdale in Corvallis, OR to model and test the unidirectional oscillating water column integrated into a coastal structure in the university's Large Wave Flume. The effort would include conducting a comprehensive analysis and testing to elucidate the pneumatic power generation potential for the technology in a Coastal Structure Integration application across a wide range of sea states.

18. Wavewatts, Inc. would work with staff at the Aaron Friedman Marine Hydrodynamics Laboratory at the University of Michigan to verify experimental results associated with the tuning capability and predicted power output performance of their WEC. Scaled model tank testing would be completed to confirm numerical computations. Tank testing would also be conducted to confirm actual body displacements that account for drag, allowing a more accurate drag coefficient estimation for WEC-Sim efforts in future design iterations.

If additional TSRs are identified beyond those reviewed in this or previous determinations, or if the type of assistance offered by an approved facility is modified, additional NEPA reviews must be completed regarding those proposed changes.

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.

All project work would follow institutional health and safety policies including mandatory employee training, the use of personal protective equipment, adherence to safety protocols, regular safety audits, and risk assessments. Additionally, all applicable federal, state, and local health, safety, and environmental regulations would be adhered to.

All project-related activities would consist of desktop efforts or would occur in purpose-built facilities. No modification of existing facilities, ground disturbances, changes in use of facilities or outdoor equipment installations would occur. No additional permits, licenses, or authorizations would be required for these efforts. DOE does not anticipate any impacts to resources of concern due to the proposed project activities.

For Categorical Exclusion Determinations:

- The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures (June 30, 2025). To fit within the classes of actions listed in Appendix B to 10 CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures.
- 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.
- A portion of the proposed action is categorically excluded from further NEPA review.

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. Accumulated Ocean Energy, Inc.
2. Aquanits, Inc.
3. Aquanits, Inc.
4. Azura Wave Power
5. BladeRunner Energy, Inc.
6. California Polytechnic State University
7. Cornell University
8. Re Vision Consulting
9. Emrgy, Inc.
10. Equinox Ocean Turbines Besloten Vennootschap
11. Escuela Superior Politécnica del Litoral Polytechnic University
12. HydrokinetX Corporation
13. Ocean Inertia
14. Poseidon's Kite, LLC
15. University of Porto
16. University of Victoria
17. Wave Swell Energy, LLC
18. Wavewatts, Inc.

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 that a signed

NEPA Determination applies to.

Notes:

Water Power Technologies Office (WPTO)
NEPA review completed by Chris Akios, 12/05/25

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

 Electronically
Signed By: Nicole Serio

Date: 12/5/2025

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:

Field Office Manager

Date: _____