



## 30 May 2025

The Portal and Repository for Information on Marine Renewable Energy ([PRIMRE](#)) provides access to marine energy data, information, and resources in the U.S. and internationally. The bi-weekly [PRIMRE Blast](#) highlights relevant announcements and upcoming events; new content in the [Knowledge Hubs](#); and international marine energy news. [Email us](#) to contribute!

---

[Announcements](#)  
[Upcoming Events](#)

[Tethys Eng. Documents](#)  
[Telesto Highlight](#)

[Signature Projects Update](#)  
[News & Press Releases](#)

---

## Announcements

### Tethys User Feedback Survey

We are seeking feedback on Tethys, which is one of seven PRIMRE Knowledge Hubs! Please complete this 3-minute [Tethys User Feedback Survey](#) to help us understand how the wind and marine energy communities use Tethys and determine how we can continue to improve the site.

#### **Tethys User Feedback Survey**

We are requesting feedback on [Tethys](#), an online knowledge hub with information and resources on the environmental effects of wind and marine energy around the world. This short, 3-minute survey will cover the following topics:

- User background
- How Tethys is used
- How Tethys can be improved

Please share this survey with any colleagues that may be able to provide additional information, and email [tethys@pnnl.gov](mailto:tethys@pnnl.gov) if you have any questions or additional feedback.

1. What is your role?

- ☐ Researcher
- ☐ Developer
- ☐ Regulator

## Request for Information

Pacific Northwest National Laboratory (PNNL) is [requesting information](#) from developers, owners, and/or manufacturers of small-scale current energy devices capable of deployment and operation to power coastal aquaculture operations. Responses are due 6 June 2025.

## Calls for Abstracts & Papers

Marine Technology Society opened the Call for Abstracts for its [Fisheries & Benthic Monitoring TechSurge](#) through 20 June 2025. The focused TechSurge will take place on 8-9 October 2025 in Narragansett, Rhode Island (USA) and convene experts to explore advancements in monitoring technologies and practices that support responsible offshore development.

## Funding & Testing Opportunities

The Testing Expertise and Access for Marine Energy Research (TEAMER) program, sponsored by the U.S. Department of Energy (DOE) and directed by the Pacific Ocean Energy Trust (POET), is accepting [Request for Technical Support \(RFTS\) 16](#) applications through 6 June 2025 to support marine energy testing and development projects. Open Water Support applications can be submitted any time. TEAMER also offers [Results Dissemination Support](#) (e.g., travel support).

The U.S. DOE's [Energy Technology Innovation Partnership Project \(ETIPP\)](#), which helps U.S. coastal, remote, and island communities become more energy resilient, has opened applications for new communities to join. Applications are due 27 June 2025.

## Career Opportunities

Delft University of Technology (TU Delft) is looking for a [Postdoc on Climate Change Wave Modelling for Marine Renewable Energies](#). The Postdoc will work on developing robust wave hindcasts/forecasts at high spatial resolutions, analyze long-term metocean conditions, and extreme events, with a particular focus in marine renewables. Submissions are due 4 June 2025.

TU Delft is also offering a [PhD Position on Impacts of Climate Change on Wave Energy Resources](#). This PhD will focus on long-term impacts on wave resources in the European Seas as part of a European Project, looking into numerical wave modelling and adaptation of floating wind and wave energy converters. Submissions are due 4 June 2025.

PNNL is looking for a [Marine Operations Manager](#) to manage marine operations and administration of research vessels and ensure the safe and efficient operations of equipment and personnel. Applications are due 9 June 2025.

HR Wallingford is looking for a [Senior / Principal Oceanographic Survey Consultant](#) to join its team dedicated to marine surveys and support delivery of high-quality consultancy advice relating to surveys, data, analysis, and reporting. Applications are due 13 June 2025.

The Fundy Ocean Research Centre for Energy (FORCE) is seeking a [Director of Science & Env Programs](#) to help shape FORCE's scientific direction and lead the development, implementation, and technical oversight of its strategic science initiatives and marine environmental programs.

FORCE is also hiring a [Field Systems Technician](#) to support the development and operation of the Ocean Sensors Innovation Platforms (OSIP) project, which will help test and assess environmental monitoring instruments for tidal energy devices.

---

## Upcoming Events

### Upcoming Webinars

The Marine Alliance for Science and Technology for Scotland (MASTS) is hosting an Open Forum Session, "[Anthropogenic Energy in the Marine Environment](#)", on 18 June 2025 from 10:00-11:00am BST (9:00-10:00am UTC). The session will include presentations on energy pollution from offshore wind, energy pollution by ships, and improving tidal energy capture by a partial-width array using Flow Alteration by Introduced Roughness (FLAIR). [Register here.](#)

### Upcoming Conferences

Bluesign is hosting [Seanergy 2025](#), an international event on offshore renewable energy, on 17-18 June 2025 in Paris, France.

The [16th European Wave and Tidal Energy Conference \(EWTEC 2025\)](#) will take place between 7-11 September 2025 in Madeira, Portugal. Early bird registration ends 20 June 2025.

The [2025 University Marine Energy Research Community \(UMERC\) + Conference and Ocean Renewable Energy Conference \(OREC\)](#) will take place 12-14 August 2025 in Corvallis, Oregon (U.S.). Early bird registration rates are available through 31 May 2025.

The National Hydropower Association is hosting [Clean Currents 2025](#), an industry-focused event on conventional hydropower and marine renewable energy, on 14-17 October 2025 in Pittsburgh, U.S.

---

## New Documents on Tethys Engineering

*[Tethys Engineering](#) hosts thousands of documents on the technical aspects of marine energy research and development, including journal articles, conference papers, and reports.*

[Turbulence measurements at three potential tidal energy sites in the Salish Sea – McVey et al. 2025](#)

Subsurface moorings were deployed in the Salish Sea, WA to characterize the turbulence statistics at three potential tidal energy sites: Bellingham Channel, Rosario Strait, and Tacoma Narrows. Measurements were made over two days during spring tides with a combination of acoustic Doppler velocimeters and current profilers in order to analyze the turbulence intensity, integral length scales and turbulent kinetic energy balance. This study shows the successful use of buoy-mounted ADVs to gain mid-water column turbulence measurements pertinent to the tidal energy industry, and results from this deployment are important for future work improving a numerical resource characterization model for the Salish Sea.

#### **Characterizing in-stream turbulent flow for tidal energy converter siting in Cook Inlet, Alaska – Deb et al. 2025**

A regional-scale, 3D hydrodynamic modeling framework was implemented in Cook Inlet, Alaska to predict tidal current and turbulence characteristics that can assist Tidal Energy Converter (TEC) designers and project managers. Using two months of model simulation data, the channel cross-section for TEC deployment was examined, focusing on undisturbed power density and macro-scale turbulent properties. Ultimately, this work emphasizes the importance of estimating flow and turbulence conditions in energetic systems to understand turbulent sites better and improve resource characterization.

#### **Wave energy harvesting performance of a novel dual-mode oscillating Buoy – parabolic oscillating water column (DOB-POWC) hybrid system – Liu et al. 2025**

This paper proposes an innovative hybrid system that integrates an Oscillating Water Column (OWC) device with a cylindrical Oscillating Buoy (OB). The front wall of the OWC is designed with a parabolic shape to collect and focus reflected waves to enhance the power capture performance of the OB device; therefore, it is referred to as the Parabolic Oscillating Water Column (POWC). The OB can harvest energy from both heave and pitch modes and connects to the POWC through a hinge mechanism, known as the Dual-mode Oscillating Buoy (DOB). The proposed DOB-POWC hybrid system can absorb incident wave energy via the DOB, capture transmitted wave energy through the POWC, and converge reflected wave energy within a region using the parabolic wall.

---

## **Telesto Highlight**

*[Telesto](#) provides information and resources about the development life cycle of marine energy, as well as information on lessons learned, metrics, economics, standards, and compliance.*

#### **Marine Energy Advanced Materials and Manufacturing**

This project tests composite materials for use in the harsh marine environment. Their database, publications, and webinar recordings, all available on Telesto, contain research

on how the use of composite materials affects marine energy design, fluid structure interactions, and manufacturing. Composite materials provide benefits in terms of lighter weight, advanced and customized manufacture, and improved resistance to the marine environment. Sandia National Laboratories, along with Pacific Northwest National Laboratories, National Renewable Energy Laboratory, Montana State University, and Florida Atlantic University are collaborating on this project. For example, Sandia National Laboratories and Montana State University have conducted extensive testing and analysis on wind turbine blades and materials for marine energy devices in support of the industry and research communities. [View the full database of results here.](#)

---

## Signature Projects Update

*[Signature Projects](#) bring focus to a selection of research and development projects supported by the U.S. DOE's Water Power Technologies Office and link to all the projects' reports, datasets, and associated papers.*

### [MHKiT](#)

MHKiT is an open-source marine energy software, developed in Python and MATLAB, that includes modules for ingesting, quality controlling, processing, visualizing, and managing data. MHKiT-Python and MHKiT-MATLAB provide robust and verified functions in both Python and MATLAB that are needed by the marine energy community to standardize data processing. Calculations and visualizations adhere to International Electrotechnical Commission (IEC) technical specifications and other guidelines.

### [TEAMER](#)

The TEAMER program aims to accelerate the viability of marine renewables by providing access to the U.S.' best facilities and expertise in order to solve challenges, build knowledge, foster innovation, and drive commercialization. The TEAMER program, sponsored by the U.S. DOE and directed by POET, provides marine energy developers and researchers access to the nation's best facilities and expertise.

### [The Reference Model Project \(RMP\)](#)

The Reference Model Project (RMP), sponsored by the U.S. DOE, was a partnered effort to develop open-source marine hydrokinetic (MHK) point designs as reference models to benchmark MHK technology performance and costs, and an open-source methodology for design and analysis of MHK technologies, including models for estimating their capital costs, operational costs, and levelized costs of energy. The point designs also served as open-source test articles for university researchers and commercial technology developers.

---

## News & Press Releases

### [Eco Wave Power Pays First Installment of Grid Connection Fee for 1 MW Project in Porto, Portugal](#) – Eco Wave Power

Swedish wave energy technology company Eco Wave Power has successfully paid the first installment – representing 50% of the grid connection fee – for the planned 1 MW station in the city of Porto, Portugal, marking significant progress in the project’s implementation. This payment was made to E-REDES, the Portuguese electricity distribution system operator responsible for managing and operating the national distribution grid and ensuring secure and efficient access for producers and consumers alike. Additionally, Eco Wave Power has informed E-REDES of a tentative grid-connection date scheduled for 2026, pending final permitting, construction, and regulatory procedures. “By securing grid connection for our first 1 MW station, we are turning vision into reality. This is more than an infrastructure milestone – it’s a signal that wave energy is moving from concept to contribution” said Inna Braverman, Founder and CEO of Eco Wave Power.

### [Updated Risk Management Framework Supports Success of Marine Energy Devices](#) – National Renewable Energy Lab

The National Renewable Energy Laboratory (NREL) has revised the *Marine Energy Technology Development Risk Management Framework* to include a new template for assessing failure modes, their effects, and their potential causes, which are prioritized through a criticality analysis. Since the development of the original framework 10 years ago, the U.S. DOE’s Water Power Technologies Office has worked closely with NREL to incorporate key components and uphold specific requirements for projects with open water testing that they support. The revised framework is a free, public tool that can help organizations prioritize their investments while minimizing potential damage and costs.

### [Inyanga Marine Energy Group awards fabrication contract for major tidal energy project in Wales](#) – Inyanga Marine Energy Group

The 20 MW HydroWing tidal energy array will be deployed at Morlais off Anglesey in Wales, one of the largest consented tidal energy projects in Europe. The contract with Hutchinson Engineering covers the fabrication of the foundation frame and the rear nacelle, including welding, painting and coating to a specification capable of withstanding the harsh underwater environment. The foundation frame will weigh 120 tons, with an energy yield of 1.2 MW from a single unit. The nacelle is 19 metres high. The foundation frame will be part constructed at Hutchinson Engineering’s factory in Cheshire and final construction will take place quayside in Wales. The tidal energy prototype will deploy in the first quarter of 2026.

### [UK’s Only Female-Founded Wave Energy Firm Bags £531K Funding](#) – World Energy

ZOEX Ltd, an Aberdeen-based wave energy company, has secured £531,000 (\$717,000) in funding to advance its innovative wave energy converter technology. The company's wave energy converter features a patent-pending double-Link arm mechanism, designed to harness energy from oceans with lower wave heights. The system incorporates survivability features, including impact-resistant floats, a submerged survival mode, and no mechanical end stops, ensuring durability and efficiency. A 100 kW full-scale prototype was tested in Aberdeen Harbour in 2024 and is now set to undergo further testing in Ordu, Turkey, at a site provided by OREN Enerji A.S., a renewable energy subsidiary of Ordu Municipality. This location offers critical met-ocean data for assessing the technology's performance. ZOEX aims to achieve commercial deployment by the end of 2025.

#### **Carnegie advances ACHIEVE wave energy project with new EuropeWave payment – Offshore Energy**

Australia's wave energy developer Carnegie Clean Energy has confirmed that its wholly owned subsidiary, CETO Wave Energy Ireland (CWEI), received a €137,152 payment under the EuropeWave Phase 3 contract, part of its ACHIEVE program. The payment follows the completion of electrical and control system testing at SEI's facilities in the Basque Country. According to Carnegie, the tests demonstrated integration and functionality of the electrical system and validated the control system's ability to communicate and control system functions. Upcoming work under the ACHIEVE program is said to include procurement and manufacturing tasks, with inspections at key manufacturing partners and factory acceptance testing. Preparations are also underway for the deployment of a wave measurement buoy at the BiMEP site.