PRIMRE BLAST

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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

ORISE Applications Open

Applications for the U.S Department of Energy (DOE) Oak Ridge Institute for Science and Education (ORISE) Science and Technology Fellowship are now open! ORISE offers early-career professionals the opportunity to contribute their expertise to energy research by guiding strategy, designing funding programs, and managing projects. Apply by 31 July 2026.

Calls for Abstracts & Proposals

The Call for Abstracts for the 3rd Australian Ocean Renewable Energy Symposium (AORES) has been extended until 15 June 2026. AORES will take place 9–11 November 2026 in Adelaide, Australia.

The Call for Town Halls and Panel Sessions for OCEANS 2026 Monterey is open until 20 July 2026. OCEANS 2026 Monterey will take place on 21–24 September 2026 in Monterey, California, USA.

Funding & Testing Opportunities

University of California San Diego has opened applications for the StartBlue Ocean Enterprise Accelerator, which is an intensive immersive program designed to help ocean intelligence startups launch and scale to support the ocean enterprise. Apply by 21 June 2026.

Oregon State University (OSU) is seeking Proposals from qualified Marine Operations Consultants to provide advisory services to the PacWave wave energy test site by performing technical reviews, operational assessments, risk-based evaluations, and other activities. Proposals are due 24 June 2026.

Interreg North Sea has launched the 4th Support Call for the OASIS Accelerator Programme, which supports start-ups and SMEs from the North Sea region with technical and commercial trainings, networking opportunities, and a dedicated Pressure Cooker event on 21–24 September 2026 in Hamburg, Germany, hosted by The German Aerospace Center. Apply by 6 July 2026.

VentureWell has opened applications for Stage 1 of its Ocean Enterprise Accelerator, which supports U.S. innovators with the development, commercialization, and adoption of new ocean data technologies and services. Apply by 7 July 2026.

Fondation OPEN-C has opened the OPEN SEA Demo call for offshore technology developers to test their technologies in real sea conditions at the grid-connected SEM-REV offshore test site. Apply by 10 July 2026.

UK Research and Innovation (UKRI) has opened applications for the Clean Maritime Demonstration Competition 7: Deployment trials, which will fund real world demonstrations of innovative clean maritime technologies in an operational setting. UK organizations and collaborators can apply by 15 July 2026.

Ocean Exchange, in partnership with the Marine Environmental Observation, Prediction and Response Network (MEOPAR), has launched a new Call for Solutions focused on advancing ocean, Great Lakes, and St. Lawrence River sustainability through the innovative use of artificial intelligence and ocean data. One Canadian startup, nonprofit, researcher, or organization will receive a CAD $100,000 Ocean Exchange Neptune Award. Apply by 25 August 2026.

The U.S. Testing Expertise and Access for Marine Energy Research (TEAMER) program, which supports marine energy testing and development projects, is accepting Request for Technical Support (RFTS) 19 applications until 2 October 2026. TEAMER now provides expertise, non-open water, and open water support, as well as commercialization support.

Career & Internship Opportunities

The University of Victoria and Institute for Integrated Energy System are offering opportunities for one Doctoral student and one Master of Science graduate student to help direct innovative research at the intersection of ocean renewable resources, technology development, and integrated value to communities and utilities.

The Centre for Ocean Energy Research (COER) at Maynooth University is recruiting PhD researchers to work on cutting-edge ocean energy projects in collaboration with leading international academic and industrial partners. Areas of interest include control co-design, marine renewable energy systems, hydrodynamic modelling, nonlinear optimization, wave energy conversion, and tidal energy technologies.

Upcoming Events

The PRIMRE Events Calendar highlights key events from around the world related to marine energy, including conferences, webinars, workshops, and more.

Upcoming Webinars

France Energies Marines is hosting a webinar, "Biocolonisation improved knowledge to optimise monitoring of offshore renewable energy systems", on 25 June 2026 from 12:00–2:00pm UTC. The webinar will present the main outputs from the BIODHYL project, which set out to gain a better understanding of the early stages of biocolonisation of an offshore structure by studying the organisms involved and how their populations evolve over time and in response to the environment.

The National Laboratory of the Rockies (NLR) is hosting the next webinar its *Marine Energy Microgrid and Power Electronics Webinar Series*, "Microgrid Power Hardware-in-the-Loop Modeling," on 10 August 2026 at 12:00pm MDT (6:00pm UTC) and will demonstrate NLR's power hardware-in-the-loop (HIL) microgrid model for marine energy integration with microgrid testing. This demonstration will feature a repurposed tidal energy generator mounted on NLR's 20-kW test bench connected to a bidirectional grid emulator and an HIL device.

The Portal and Repository for Information on Marine Renewable Energy (PRIMRE) is hosting a webinar, "From Design to Ocean Deployment: Lessons Learned from the SURF-WEC Project in Hawaii," on 11 August 2026 from 1:00–2:00pm MDT (7:00–8:00pm UTC). Join for an in-depth overview of the Small Underwater Research Flap Wave Energy Converter (SURF-WEC), a 1m x 1m oscillating surge device developed by NLR in partnership with the Hawai'i Marine Energy Center (HMEC), which has been successfully deployed off the coast of Oahu, Hawaii.

Upcoming Short Course

HMEC is offering a one-week Introductory Short Course on Marine Energy from 17–21 August 2026 at University of Hawai‘i Mānoa in Oahu, Hawai‘i. The course is designed for individuals with little or no prior experience, including advanced high school students, college students, and professionals interested in marine energy in Pacific Island contexts. The application deadline has been extended to 15 June 2026.

Upcoming Conferences

The Partnership for Research in Marine Renewable Energy (PRIMaRE) is hosting the 13th PRIMaRE Conference on 23–24 June 2026 at Loughborough University in Loughborough, England.

The 2026 University Marine Energy Research Community (UMERC) Conference and Marine Energy Technology Symposium (METS) will take place on 4–6 August 2026 at the Stevens Institute of Technology in Hoboken, New Jersey, USA.

The 8th Asian Offshore Wind, Wave and Tidal Energy Conference (AWTEC 2026) will take place on 6–10 September 2026 in Kaohsiung, Taiwan.

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.

Parametric bottom-up cost modelling of tidal energy converters for site-specific feasibility studies – Petri et al. 2026

> Tidal energy represents a promising yet underexploited source within the marine renewable sector, offering predictable and sustainable generation potential that aims to increase interest in offshore energy alternatives. This study presents a detailed bottom-up techno-economic optimisation assessment model adapted to tidal energy converter (TEC) systems. The proposed novel methodology breaks down component-level costs for TECs into three foundational types: Gravity-Based Substructures (GBS), floating platforms, and monopiles. A key achievement of this work lies in departing from traditional macroscopic economic aggregates by dynamically coupling these structural requirements with local hydrodynamic and bathymetric data to evaluate energy yield and economic performance.

Mixed Wave Energy arrays, re-thinking wave array configurations: A hydrodynamics based approach – Raghavan et al. 2026

> Wave energy arrays are essential for reducing the Levelised Cost of Energy, yet the performance of traditional mono-device arrays is often limited by destructive hydrodynamic interactions and directional sensitivity. This work focuses on ”mixed arrays,” wherein different types and geometries of wave energy converters operating in different degrees of freedom (point Absorber and a flap) are deployed within the same array to exploit complementary device dynamics, whilst reducing spatial requirements. Using a weakly non-linear frequency-domain model utilising the solver HAMS-MREL, a systematic comparison is performed across 3360 cases considering varying array sizes, spacings, wave directions, and control strategies (active and passive).

The Effects of Summer-Only River Energy on Microgrid-Size Battery Energy Storage at High Latitudes – Bond et al. 2026

> Riverine hydrokinetics (RHK) represent an emerging technology in the renewable energy space with commercially-deployable systems on the horizon. In Alaska, many rural and remote communities exist on major rivers and are burdened by high costs of electricity

and imported fuel, making them a promising end-user of these systems. However, it remains an open question as to how the addition of RHK will affect grid performance and electricity costs. Specifically, this study looks at the effects of integrating riverine hydrokinetics on a hybrid diesel microgrid with solar and battery infrastructure. Using real electrical load data and riverbed transects, estimated RHK costs, and modeled solar photovoltaic and river energy resources, a HOMER model was used to analyze the effects on battery degradation, and then expanded to look at fuel usage and levelized cost of energy.

Marine Energy Projects Database Highlights

The Marine Energy Projects Database provides up-to-date information on marine energy projects, test sites, devices, organizations, and technologies around the world.

Pioneer Wave Energy Converter v1 - Mid-Atlantic Bight – Woods Hole Oceanographic Institution

The Sandia National Laboratory designed, Pioneer Wave Energy Converter v1 prototype was deployed off the East coast of the United States in the Mid-Atlantic Bights on November 3rd, 2025. The WEC was integrated into a Pioneer Buoy in the Coastal Pioneer Array. Energy production totaled 36.9 kWh over the 6 month deployment with the WEC producing 8.6 W on average. Power production peaked at 20.2 W. Detailed data and visualizations resulting from the deployment are available on the Pioneer WEC Dashboard.

Energyfish - Sankt Goar – Energyminer GmbH

Energyminer has deployed 3 of their axial flow turbine energyfish units in the Rhine. With flow speeds of 1.5 to 2 m/s, the Rhine in this section offers favorable conditions for the power plant. The units are floating with small surface expressions and are anchored to the river bed. The energyfish units and can change depth to avoid debris or in ice flows and floods. 21 energyfish units are planned to be deployed in the next phase. Energyminer intends to, and has received approval, expand the plant to 124 energyfish units with the ability to power over 460 households.

ERHYGE Project – Madagascar – Guinard Energies Nouvelles

A live demo of a hybrid production system including a P66 hydrokinetic turbine system and a 3.5-kWp photovoltaic set, the project Rural Electrification by HYdrokinetic turbine Guinard Energies (ERHYGE) benefited directly to 50 households, 5 companies and all of the local public services, including the communal school of Amboarakely. The project resulted from the partnership with the NGO Gret, the local grid-operator SM3E, Ademe International, and the Malagasy Ministry of Energy. By local consultation and community-involvement, the inhabitants have taken the project as their own, building the shelter for the electrical equipment.

MHKDR Updates

The Marine Hydrokinetic Data Repository (MHKDR) is the repository for all data collected using funds from the U.S. DOE's H2O, including results from tank tests and open sea trials.

TEAMER: Over-voltage Protection of Direct Drive Wave Power System (WPS) Electrical Components Public Release – Swindler et al. 2026

> Public data, results, and final report from a study on methods to design and optimize an over-voltage protection (OVP) system for a floating, two-body Wave Power System (WPS). The work has been performed by assessing the conditions under which hydrodynamically induced transient over-voltage (OV) events occur, identifying means to detect these events, formulating and assessing solutions to mitigate their impact and protect embedded equipment, and performing a comparative analysis against the baseline to evaluate the impact on: 1. Power Performance (percent improvement in annual mean electrical power (MEP) at PacWave-South); 2. Capital expense (capital cost of OVP, increase over the base system); and 3. Reliability (mean time to failure (MTTF) for the improved OVP system).

Co-Design of Marine Energy Converters for Autonomous Underwater Vehicle Docking and Recharging - Year 4 - Software and Data – Hollinger et al. 2025

> This dataset contains software, sensor data, and experimental recordings generated during Year 4 of a DOE-funded project focused on the co-design of marine energy converters and autonomous underwater vehicle (AUV) docking and recharging systems. The data were collected during experimental testing at the O.H. Hinsdale Wave Research Laboratory and support foundational research aimed at advancing coupled Wave Energy Converter (WEC)-AUV systems for marine energy applications. The dataset includes (1) a numerical model of a WEC-AUV dock system with hydrodynamic analysis and control, (2) wave flume testing data of wave elevation, dock displacement, pressure sensor, and load cell measurements, (3) multimodal sensor recordings collected from a remotely operated vehicle (ROV) under varying wave conditions, including localization, depth, sonar, and IMU data recorded during autonomous docking operations, as well as video footage demonstrating AUV docking procedures.

TEAMER: CFD Simulation Datasets of Dehlsen Associates' Centipod Wave Energy Converter – Bayat and Chartrand 2026

> This directory contains datasets pertaining to the Computational Fluid Dynamics (CFD) modeling of Dehlsen Associates, LLC "Centipod 1P6" (C1P6) two-part point absorber wave energy converter (WEC) by Sandia National Laboratory. This project is part of the TEAMER RFTS 11 (request for technical support) program. Simulations were developed in OpenFOAM, utilizing the waves2Foam library for waves generation and absorption, the MoorDyn v2 library for mooring, and the rigidBodyDynamics library in OpenFOAM

for simulation of the two-body system. Custom restraint models were developed for two-body braking and end-stops, and custom code for these models is included in this directory.

News & Press Releases

Seaturns validates the deployment of its demonstrator in the Atlantic and announces a collaboration with ESB, Ireland's leading energy company – Seaturns

Seaturns, France's pioneering wave energy technology company, announces the successful deployment of its full-scale demonstrator off the Gironde estuary on the French Atlantic coast — a first in France — marking the commencement of an offshore trial campaign of a minimum of 12 months. The program represents a critical de-risking milestone on the company's path to commercial deployment and technology certification by 2027. The trial period will be monitored by ESB, Ireland's foremost energy company, under an industrial innovation collaboration, providing Seaturns with an industry perspective from one of Europe's most respected energy utilities. The deployment of the Seaturns full-scale wave energy demonstrator S1 is a first in France and represents a landmark moment for the wave energy sector in Europe.

Eco Wave Power Explores AI-Powered Wave Energy Infrastructure and WaveGPT Development with Florida Atlantic University and University of Michigan – Eco Wave Power

Eco Wave Power, a leading onshore wave energy technology company, recently announced that it is advancing discussions with Florida Atlantic University (FAU) and the University of Michigan regarding the development of AI-powered wave energy applications, WaveGPT, and next-generation wave-powered coastal data center infrastructure designed to support the rapidly growing energy demands of artificial intelligence. The discussions took place during a strategic meeting held at Florida Atlantic University, bringing together leading experts in marine renewable energy, artificial intelligence, digital twins, electrical engineering, ocean engineering, and energy systems optimization. The initiative focuses on two complementary tracks designed to position Eco Wave Power at the intersection of renewable energy and AI infrastructure.

Can tidal power turbines and fish co-exist? New Nova Scotia project to find out – The Chronicle Herald

Tidal power is an emerging sector globally and the immense tidal resource of a narrow channel in Nova Scotia could eventually deliver an estimated 2,500 megawatts of renewable energy to Canada's power grid. But first, a group of researchers want to know if underwater turbines can generate clean energy without harming the Bay of Fundy's marine ecosystem. The Fundy Ocean Research Centre for Energy (FORCE) is retrofitting a former tidal power platform into a research station designed to monitor fish and marine life in the Bay of Fundy's Minas Passage. FORCE is the research and test centre for tidal

stream energy, providing offshore and onshore electrical equipment to connect devices to the power grid. The 32-metre-long former Sustainable Marine Energy floating tidal platform, known as PLAT-I 6.40, will become a key component of FORCE's Ocean Sensor Innovation Platforms (OSIP) project, a multi-year initiative aimed at improving environmental monitoring around tidal energy devices.

New Wave Energy Testing Site Planned for Cuttyhunk – Vineyard Gazette

A new project off the coast of Cuttyhunk aims to test out how well prototype technology can harness the power of waves for electricity. The Marine Renewable Energy Collaborative (MRECo), a Massachusetts-based nonprofit, is in the process of installing a testing site to the south side of the island, where developers could measure the efficacy of hydroenergy devices in open ocean conditions before they go to market. The site, which is being supported by a $1.9 million grant from Massachusetts Clean Energy Center and is expected to be in the water by September, is a critical step to harness the power of waves through tidal turbines, according to MRECo executive director John Miller. The site will include permanent moorings, power access and monitoring equipment to help the developers understand how their technologies work.

Oxford spinout Caudal Energy raises £4.3m in funding to scale predictable tidal power technology – The Oxford Magazine

Oxford-based Caudal Energy has secured £4.3 million in funding to accelerate development of its next-generation tidal energy platform designed to deliver predictable renewable power at scale. Founded in 2024 as Porpoise Power and spun out of the University of Oxford, Caudal Energy is developing a new class of tidal generation technology inspired by the movement and efficiency of marine mammal tails. The company's proprietary oscillating foil system uses fin-based hydrodynamics rather than conventional underwater turbines, allowing energy to be generated efficiently in a wider range of tidal environments. Already operating at Technology Readiness Level 5 (TRL5), the company said the funding will support full-scale testing of the technology at Strangford Lough in Northern Ireland, with the first commercial deployment targeted for 2028 as it progresses toward TRL8.