# PRIMRE BLAST

# 12 December 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!

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## Announcements

Ocean Titans Film

The World Ocean Council's Ocean Titans series recently released a short documentary film, Turning Tides into Power: Inside Proteus Marine's Ocean Energy Innovation.

ORISE Applications Open

The Oak Ridge Institute for Science and Education (ORISE) Marine Energy Fellowship Program, which offers graduate students and postgraduates the opportunity to engage in marine energy research while embedded at selected host facilities for up to 12 months, is now accepting applications for its Summer Cohort through 12 December 2025.

Calls for Abstracts

The Call for Abstracts for the Environmental Interactions of Marine Renewables Conference (EIMR 2026) has been extended through 12 December 2025. EIMR 2026 will take place on 13-17 April 2026 at the Scottish Association for Marine Science in Oban, Scotland.

The Call for Abstracts for the Young Coastal Scientists and Engineers Conference (YCSEC 2026) is open until 19 December 2025. The conference will take place 13-14 April 2026 in Nottingham, England. Early bird registration is available through 16 January 2026.

The Call for Abstracts for OCEANS 2026 Sanya is open until 22 December 2025. OCEANS 2026 Sanya will take place 25-28 May 2026 in Sanya, China.

The Call for Speakers for All-Energy 2025 Exhibition and Conference show floor theatres is now open until 23 January 2026. All-Energy will take place 13-14 May 2025 in Glasgow, Scotland.

The Call for Speakers for Marine Technology Society's 16th Buoy Workshop is open through 23 January 2026. The workshop will take place on 23-26 March 2026 in St. Petersburg, Florida, U.S. Early bird registration ends 15 December 2025.

The Call for Abstracts/Papers for the 7th International Conference on Renewable Energies Offshore (RENEW 2026) is open through 28 February 2026. RENEW will take place on 20-22 October 2026 in Lisbon, Portugal.

The Call for Abstracts for the 8th Asian Offshore Wind, Wave and Tidal Energy Conference (AWTEC 2026) is now open until 6 March 2026. AWTEC will take place on 6-10 September 2026 in Kaohsiung, Taiwan.

Funding & Testing Opportunities

The Long-Term Joint EU-AU Research and Innovation Partnership on Sustainable Energy (LEAP-SE) program, co-funded by the European Commission under Horizon Europe, aims to develop a long-term partnership between Europe and Africa in Research and Innovation on sustainable energy. Pre-proposals are due by 5 February 2026.

The U.S. Testing Expertise and Access for Marine Energy Research (TEAMER) program, which supports marine energy testing and development projects, has extended the deadline for Request for Technical Support (RFTS) 17 applications until 6 February 2026. RFTS 18 applications will

then be accepted until 5 June 2026. Open water support requests are accepted on a rolling basis. TEAMER recently added Commercialization Support to all future RFTS rounds as well.

Horizon Europe has several open Calls for Proposals, including De-risking wave energy technology development through transnational pre-commercial procurement of wave energy research and development. Proposals are due by 17 February 2026.

The Supergen Network+ in Artificial Intelligence (AI) for Renewable Energy (SuperAIRE) is inviting proposals for Round 2 of the SuperAIRE Early Career Researcher Grant Call. This scheme supports early career researchers working at the intersection of AI and renewable energy to develop their ideas, build collaborations, and take the first steps towards larger projects.

Career & Internship Opportunities

Ecodetect, an advanced marine science and technology company specializing in the development of end-to-end, AI-driven, marine monitoring systems, is recruiting a Machine Learning Data Engineer and a Marine Systems Engineer. Apply by 19 December 2025.

Oregon State University (OSU) is inviting applications for a combined position as Pacific Marine Energy Center (PMEC) Director and Associate or Full Professor. The PMEC Director at OSU will work with the other PMEC co-Directors and the Directors of other labs and test sites to lead the program. Apply by 4 January 2026.

New Zealand's Applied Doctorate Scheme is inviting applications from prospective students, domestic and international, to be a part of its inaugural cohort. The University of Canterbury and Azura Wave Power are offering a project that will explore the development of offshore desalination systems powered by ocean wave energy. Apply by 19 January 2026.

The University of Manchester is offering a funded PhD position for UK students focused on modelling wave transformation over tidal turbine wakes: developing tools for array design, loading, and survivability. Apply by 27 February 2026.

The University of Manchester is also offering a funded PhD position for UK students which aims to provide a comprehensive characterization of offshore turbulent conditions that define the performance and siting of offshore renewable energy devices. Apply by 28 February 2026.

CorPower Ocean is looking to fill several positions, including a Subsea Design Engineer, Senior Mechanical Design Engineer, and a Senior Assembly Engineer, to support development of its wave energy devices.

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## 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

Marine Environmental Data & Information Network (MEDIN) is hosting the next webinar in its MEDIN 2025 webinar series, "Unlocking Ocean Knowledge: The Global Push for Better Data Sharing", on 21 January 2026 from 2:00-3:00pm UTC.

Supergen Offshore Renewable Energy (ORE) is hosting a webinar, "Co-Locating Wave and Offshore Wind: Synergies and Opportunities", on 29 January 2026 from 1:00-2:00pm UTC.

Upcoming Conferences

The 2nd Institute of Electrical and Electronics Engineers (IEEE) Subsea Innovation Technologies Workshop will be held on 23-24 January 2026 at the University of Aberdeen in Aberdeen, Scotland.

The National Hydropower Association is hosting Waterpower Week 2026 on 9-13 March 2026 in Washington, DC, U.S. Early bird registration is available through 31 December 2025.

Supergen ORE is hosting its 2026 Early Career Forum and Annual Assembly on 21-22 April 2026 at the University of Warwick in Coventry, England. More details are coming soon.

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## 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.*

**Recommendations for the Optimisation of Tidal to Hydrogen Systems – Sey and Garrett 2025**

> The Fall of Warness tidal generation site off the island of Eday, Orkney, which is operated by the European Marine Energy Centre (EMEC), will become subject to constrained grid export as the number of tidal energy converters (TECs) on the site increases. In anticipation of this, EMEC has introduced a hydrogen production plant on its Caldale onshore site on Eday and has installed a vanadium flow battery (VFB) to replicate this challenge. At time of writing, this plant is not yet fully operational, but site acceptance data is available. This report uses this data, together with tidal stream current speeds at the TEC locations, to model how these could be used to optimise hydrogen production by maximising the operational time of the hydrogen electrolyser (HE) at the most efficient setpoint and minimising operations and maintenance costs both by reducing the quantity of startup cycles and using tidal cycles to schedule regular maintenance cycles.

**Framework for integrating ocean wave power into maritime microgrids – Seongho et al. 2025**

Renewable energy offers significant value for powering microgrids but requires battery storage to balance energy loads because they are intermittent and unpredictable. We present a framework and methodology herein for augmenting maritime microgrids with wave energy to augment their stability via theoretical wave energy resource assessment, wave energy converter (WEC) simulation, technical resource assessment, cost analysis, and optimal microgrid design. As a case study, we investigate wave power augmentation of a solar powered microgrid system in Puerto Rico, to reduce solar intermittency and battery storage requirements. Results show that WEC farms, even in regions with low wave energy resources, while not eliminating battery storage needs and increasing overall project costs, can significantly reduce battery storage requirements, installed photovoltaic (PV) capacity, and the PV array land-use requirements.

**IEC TS 62600-201:2025 - Part 201: Tidal energy resource assessment and characterization – International Electrotechnical Commission (IEC) 2025**

IEC TS 62600-201:2025 establishes a system for analysing and reporting, through estimation or direct measurement, the theoretical tidal current energy resource in oceanic areas including estuaries (to the limit of tidal influence) that can be suitable for the installation of one or more TECs. It is intended to be applied at various stages of project life cycle to provide suitably accurate estimates of the tidal resource to enable the arrays' projected annual energy production to be calculated at each TEC location in conjunction with IEC TS 62600-200. The purpose of this document is to provide a uniform methodology that will ensure consistency and accuracy in the estimation, measurement, characterization and analysis of the theoretical tidal current resource at sites that could be suitable for the installation of individual or arrays of Tidal Energy Converters (TECs), together with defining a standardised methodology with which this resource can be described and reported.

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## MHK Data Repository Updates

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

**High Resolution Tidal Hindcast (US Tidal) Dataset – Yang et al. 2025**

This Water Power Technologies Office (WPTO) High Resolution Tidal Hindcast dataset (us-tidal) provides standardized tidal energy data for five strategically selected U.S. coastal locations with significant tidal energy potential. Developed collaboratively by Pacific Northwest National Laboratory (PNNL) and National Laboratory of the Rockies (NLR), this dataset is funded by the U.S. Department of Energy's (DOE) WPTO Marine Energy Resource Assessment and Characterization project.

**TEAMER: WITT Vortex Induced Vibration – Branch et al. 2025**

These files include power data, current speed data, and motion data from two Vortex Induced Vibration experiments at 48.0760, -123.0441 near PNNL-Sequim. The power data are from the WITT transmission system that was mounted in a housing on top of a 2.5 m PVC pipe and secured to the seabed on a lander. The current speed data are from the second test where a Nortek Signature 1000 ADCP was mounted in a Sea Spider tripod next to the WITT lander. The motion data are from a Yost Inertial Measurement Unit that was mounted in the WITT housing at the top of the 2.5 m pipe.

**TEAMER: Raw data and three-year modeled velocity from the upper Kuskokwim River at McGrath, Alaska – Brown et al. 2025**

This dataset from the upper Kuskokwim River at McGrath, Alaska is the result of a recent river resource and siting assessment conducted by the Alaska Center for Energy and Power (ACEP) and PMEC at the University of Alaska Fairbanks (UAF). This work was requested by the City of McGrath, funded by the U.S. DOE TEAMER Program and is described in detail in the TEAMER Post Access Report. The aim of the study was to evaluate hydrokinetic river energy (RHK) resources and evaluate potential locations to determine the feasibility of potential RHK development in future to support meeting community energy needs with local renewable energy.

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## Marine Energy Software Highlights

*Marine Energy Software is a collection of commercial and open-source software relevant to marine energy development, including software for simulating devices, and processing and analyzing data.*

**Capytaine v2.3.1 Release**

Capytaine is a Python package for the simulation of the interaction between water waves and floating bodies in the frequency domain. It is built around a full rewrite of version 2 of the open-source Boundary Element Method (BEM) solver Nemoh for the linear potential flow wave theory. Capytaine v2.3.1 features a major bug fix when solving with a lid and a symmetric mesh and other minor bug changes.

**'Tis the season! Contribute to Marine Energy Software**

Like most open-source resources, the more information users contribute, the better the resource becomes! The Marine Energy Software knowledge hub is no different. And what better time to share your software with other users in the marine energy industry than the season of giving? Visit the Register Software page to find step-by-step instructions on how to add your software to the Marine Energy Software knowledge hub!

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## News & Press Releases

**CorPower Ocean leads €30M push to scale UK wave energy. – CorPower Ocean**

> CorPower Ocean has been selected to lead the €30M POWER-Farm European Union (EU) Project, addressing the competitiveness and bankability of wave farms by validating the technology in conditions required for large-scale deployment in UK waters. The initiative, partly funded by a €19M grant from Horizon Europe, will underscore wave energy's role as a mainstream renewable sector. With potential to supply up to 17% of electricity in key EU countries by 2050, the project also targets volume manufacturing across the EU, reinforcing Europe's leadership in energy innovation. The consortium includes EMEC, The University of Edinburgh, Ocean Energy Europe, Renewable Risk Advisers and Kristinehamn Teknik & Service.

**Orbital Marine Power, operator of the world's most powerful tidal turbine, secures £7m investment – Orbital Marine Power**

> Orbital Marine Power Ltd ('Orbital'), the Scotland-based operator of the world's most powerful tidal turbine, has secured a multi-million pound investment to advance its international commercial projects and contribute to the wider decarbonisation of energy. PXN Ventures – the combined VC arm of Praetura Ventures and Par Equity – joined existing shareholders including Scottish Enterprise to invest in Orbital, a company that uses floating tidal turbines to generate reliable electricity from tidal currents. The investment follows a major vote of confidence from Canada, where the Province of Nova Scotia recently awarded Orbital and Eauclaire Tidal Ltd significant new tidal energy licenses through the province's 2025 procurement process.

**Global OTEC secures lease at Hawaii Ocean Science and Technology Park for pre-consented next-gen ocean energy pilot – EIN News**

> Global OTEC has signed a lease agreement with the Natural Energy Laboratory of Hawaii Authority (NELHA) to establish its first US-based development site at the Hawaii Ocean Science and Technology Park (HOST Park), a globally recognised centre for ocean research and innovation. HOST Park will serve as the company's primary location for the development and integration of next-generation components designed to enhance the performance and economics of Ocean Thermal Energy Conversion (OTEC). This work forms a critical step toward commercial-scale offshore systems capable of delivering clean, reliable baseload power for tropical regions and offshore industries.

**EMEC completes 3-in-1 tidal energy, hydrogen and battery demonstration – EMEC**

> A world-first demonstration combining tidal power, battery storage and hydrogen production has been completed at EMEC in Orkney, Scotland. Led by EMEC, the demonstration successfully integrated three technologies – Orbital Marine Power's O2 tidal turbine, vanadium flow batteries supplied by Invinity Energy Systems, and an ITM Power 670 kW electrolyser, at EMEC's onshore site on the island of Eday. Multiple energy flow scenarios were trialled. During high generation periods, power from the O2 was used to charge the battery system, supply electricity directly to the electrolyser and

export power to the grid. When tidal generation was low, the battery system discharged power to the electrolyser to keep the electrolyser operating.

**Feds commit nearly $22m to Labrador renewable energy projects – The Telegram**

The Canadian government is investing nearly $22 million in Inuit-led Labrador clean energy projects focused on solar, wind, and tidal power. The first is the Nain Wind Microgrid Project, the over $22m in federal funding for which will support installation of two 1.5 kW wind turbines and battery storage. The result: 1.6 million litres or 63 percent less annual diesel consumption in the region. An unspecified region near Rigolet is host to the second: the Rigolet Tidal Project, which nearing the end of the assessment phase. Federal funding here totals $225,000 and will support data collection in order to inform possible tidal energy facility locations. The Makkovik Arena Solar Project is the last of the three.