PRIMRE BLAST

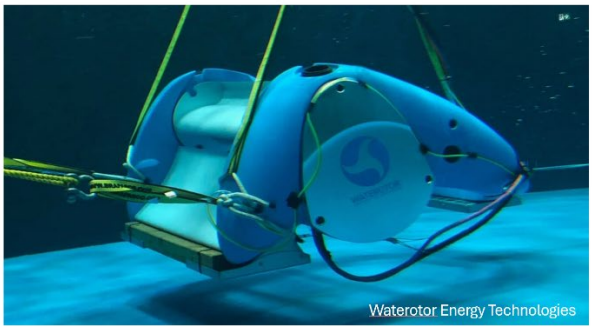
23 January 2026

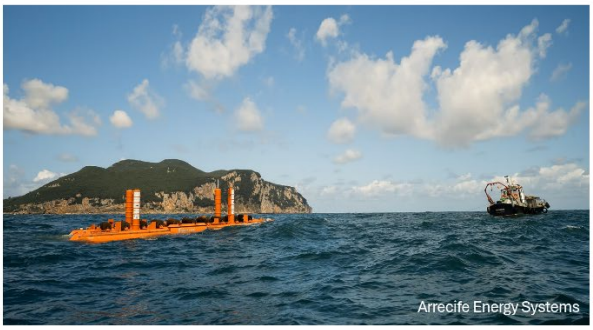
The Portal and Repository for Information on Marine Renewable Energy (PRIMRE) provides access to marine energy data, information, and resources in the U.S. and internationally. The bi-weekly PRIMRE Blast highlights relevant announcements and upcoming events; new content in the Knowledge Hubs; and international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

Announcements

Marine Energy Photo Library

The Marine Energy Photo Library on Tethys Engineering now contains over 900 photos of marine energy devices, test sites, and monitoring technologies from nearly 80 organizations. These high-resolution photos are free to use with developer attribution. Email us to contribute!





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 accepting applications for its Fall 2026 Cohort (August – October 2026) through 27 March 2026.

Calls for Abstracts

The Call for Speakers for All-Energy 2025 Exhibition and Conference show floor theatres is 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 until 23 January 2026. The workshop will take place on 23-26 March 2026 in St. Petersburg, Florida, USA.

The Call for Speakers for Clean Currents 2026 is now open until 15 February 2026. Clean Currents will take place 22-24 September 2026 in Phoenix, Arizona, USA.

The International Council for the Exploration of the Sea (ICES) has opened the Call for Abstracts for the ICES Annual Science Conference (ASC) through 25 February 2026. ASC 2026 will take place on 15-18 September 2026 in Brest, France.

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 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. 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.

Career & Internship Opportunities

The University of Minnesota is hiring a Marine Technology Extension Associate for a one-year position with the Minnesota Sea Grant College Program to integrate marine technology with workforce training and community outreach to address local and regional needs.

The University of Minnesota is also hiring a Research Program Manager for Marine Science and Technology to lead program development, coordination, and implementation of a diverse portfolio focused on marine and large-lake systems science, marine engineering, underwater acoustics, underwater technology innovation, and sustainable maritime operations.

Coastal Protection Solutions is seeking a Lead Engineer to join its early-stage team and drive the technical development, validation, and deployment of The Wavebreaker™ system, a nearshore wave attenuation system. Learn more here.

Dalhousie University is recruiting for Canada's Global Impact+ Research Talent Initiative, which seeks scholars ready to build transformational research programs and partnerships that improve lives in Nova Scotia, Canada, and around the world. Apply 23 January 2026.

The Centre for Ocean Energy Research (COER) at Maynooth University, Ireland is recruiting a Senior Postdoctoral Researcher to work on a the SHY (Seawater HYdraulic PTO using dynamic passive controller for wave energy converters) project. Apply by 1 February 2026.

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 February 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.

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

The Supergen Offshore Renewable Energy (ORE) Hub is hosting two upcoming webinars, "Co-Locating Wave and Offshore Wind: Synergies and Opportunities", on 29 January 2026 from

1:00-2:00pm UTC, and "Future Horizons for Marine Energy: Leveraging Research to Scale and Sustain", on 24 February 2026 from 1:00-2:00pm UTC.

The National Laboratory of the Rockies (NLR) is hosting the first webinar in its Marine Energy Microgrid and Power Electronics Webinar Series, "Introduction to Microgrid Research and Marine Energy Technology Integration", on 9 February 2026 at 12:00pm MST (7:00pm UTC).

TEAMER is hosting a webinar, "Quality Management Systems and TEAMER", on 11 February 2026 from 11:00am-12:30pm PST (7:00-8:30pm UTC). This webinar will provide a review of international Quality Management Standards and their use in Quality Management Systems, including the ISO 9000 and ISO/IEC 17000 series of standards.

Upcoming Masterclasses & Short Courses

The Supergen ORE Hub has launched a series of Offshore Renewable Energy Masterclasses designed by world-leading researchers and held at its core partner universities. The Masterclass on Virtual Prototyping of Offshore Renewable Energy Technologies will take place on 29-30 April 2026 at the National Decommissioning Centre in Newburgh, Scotland. The Masterclass on Environmental Contours and Extreme Value Analysis will take place on 14-15 May 2026 at the University of Exeter in Exeter, England.

Atlantic Marine Energy Center (AMEC) is hosting a marine energy short course, Introduction to Marine Energy, from 31 May to 6 June 2026 at the Coastal Studies Institute in Wanchese, North Carolina, USA. This course is designed for undergraduate and early graduate students from a range of backgrounds. It covers the fundamentals of marine energy through lectures, lab work, projects, and field trips. Apply by 31 January 2026.

AMEC is also offering two graduate-level courses that require knowledge in marine energy, engineering, and other technical skills. Marine Energy Structures, Materials, and Foundation Systems will be held on 22-26 June 2026 at Stony Brook University in Long Island, New York, USA. Tidal & Water Current Energy Conversion will close out the series on 10-14 August 2026 at the University of New Hampshire, Durham, New Hampshire, USA. Application forthcoming.

Upcoming Conferences

The 4th Pan-American Marine Energy Conference (PAMEC 2026) will take place on 10-15 April 2026 in Rio de Janeiro, Brazil.

The Supergen ORE is hosting its 2026 Early Career Form on 21 April 2026 and 2026 Annual Assembly on 22 April 2026. Registration is now available.

Marine Energy Wales is hosting the Marine Energy Wales 2026 Conference on 28-29 April 2026 in Llandudno, Wales.

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.

Hydrodynamic performance of full-scale tidal current turbine arrays wakes in tandem and parallel configurations – Zou et al. 2026

> Wake-induced interactions in tidal current turbine arrays (TCTAs) remain a major barrier to the commercialization of the tidal current energy. To address this engineering need, sea-trial data was coupled with high-fidelity large-eddy simulations (LES) using a WALE subgrid model for a full-scale 120 kW horizontal-axis turbine to resolve array-scale hydrodynamics. Wake recovery and array effects in tandem and parallel configurations were investigated, focusing on turbine spacing and rotation strategies that improve energy yield while limiting unsteady loads. The CFD model was validated against experimental dataset and then used to evaluate time-averaged C_P and C_T characteristics, wake metrics, and power-spectral-density signatures across 15D/5D spacings and co-/counter-rotation schemes.

Fused portfolio optimization for harnessing marine renewable energy resources – Maceda et al. 2026

> Offshore wind and marine hydrokinetic energy are underutilized energy resources. Efficiently exploiting these energy resources requires the identification of optimal deployment locations and optimal designs for offshore energy harvesting devices. These devices have the potential to be deployed in tandem such that the suite of devices consistently saturates a given power transmission system. To better understand the economic viability of harvesting marine renewable energy, a portfolio optimization is presented here. Portfolio optimization frameworks help to identify optimal deployment maps for energy-harvesting devices in a given domain and unify solutions of resource, technical performance, transmission, and cost model sub-problems into a unique and comprehensive tool. These frameworks select the energy-harvesting device designs in advance.

Innovating Distributed Embedded Energy Prize (InDEEP): A Lessons Learned Report – Boren et al. 2026

> The U.S. DOE's Water Power Technologies Office (WPTO) launched InDEEP in March 2023 to accelerate innovation in Distributed Embedded Energy Conversion Technologies (DEEC-Tec) for ocean wave energy. Administered by the National Laboratory of the Rockies (NLR) with technical support from Sandia National Laboratories (SNL), InDEEP focused on the development of small, distributed, and embeddable energy converters (DEECs) and their integration into scalable DEEC-Tec metamaterials for marine renewable energy applications. Spanning three phases over two years, InDEEP awarded approximately $2.3 million to teams from academia, industry, and startups. Phase I emphasized conceptual design. Phase II moved into the prototyping of individual

DEECs. Phase III required integration into functional DEEC-Tec metamaterial prototypes.

Marine Energy Projects Database Updates

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

WaveLoong Pneumatic OWC – Institute of Ocean Engineering at Tsinghua University

The WaveLoong device is a pneumatic is a backward bent duct buoy oscillating water column (OWC) wave energy converter developed by the Institute of Ocean Engineering at Tsinghua University. The 100 kW WaveLoong 'HuaQing' is 23.6 m long, 10 m wide, 9 m high and weights 170 metric tons. It was deployed in January 2024 and began sea trials in August 2024 after which it withstood Typhoon 'Toraji'. A 30 kW WaveLoong was tested from December 2021 to October 2022, experiencing multiple typhoons. This first prototype was 15 m long and 6.3 m wide. A new 200 kW version is under development.

HPG Evo25 Jurong Island 1 – Hydrokinetic Power Generation Systems

From March 2024 to March 2025, Hydrokinetic Power Generation Systems (HPG) deployed their Evo25 (rated for 25 kW of power) at Jurong Island in Singapore. This was a pilot deployment consisting of a single turbine which operated in a steady flow of 2.9 m/s, producing peak outputs of 20 kW's.

Chuja Island Breakwater OWC Pilot Plant – Korea Research Institute of Ships and Ocean Engineering

The 30 kW Mukri Power Plant OWC wave energy converter was installed in Chuja Island, Mokri (Mukri) port, South Korea. Chuja-do is an island between Jeju Island and the Korean Peninsula, about 50 km in a straight line from Jeju Island. The main direction of wave power plant is SW. The plant passed its statutory safety inspection in October 2021. This paper details the development of the device, tank testing, and early deployment data. The project was funded by the 'Advancement of Wave Energy Converters Applicable to Breakwater for Commercialization.' grant number PMS5830 and the Ministry of Oceans and Fisheries Korea.

MHKDR Highlights

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.

Supporting Data for TEAMER RFTS 12 Project: Resource Characterization for Community Scale Tidal Instream Energy in Maine – Spicer and Yang 2025

> This dataset comprises high-resolution Finite Volume Community Ocean Model (FVCOM) hydrodynamic model output for the Maine coast developed under a TEAMER RFTS 12 project with the Tide Mill Institute, with technical assistance from Pacific Northwest National Laboratory (PNNL). It was designed to assess community-scale (up to 1 MW) tidal stream resources by simulating a 30-day period in and around the Casco Bay/Mid-Coast region, with the framework enabling future expansion to other coastal sections. The modeling suite includes baseline hydrodynamics and hypothetical turbine array scenarios implemented with PNNL's FVCOM-TEC module using specifications from three commercially deployed or in-development turbines.

TEAMER: Heterogeneous Wave Energy Converter Test Data – Vitale et al. 2025

> This dataset was generated during the Heterogeneous Wave Energy Converter (HetWECs) experimental campaign conducted at the O.H. Hinsdale Direction Wave Basin at Oregon State University. Experiments include system identification, hydrodynamics, and power take-off (PTO) tests. The experiments feature 4- and 5-body heterogenous WEC arrays consisting of both oscillating surge WECs and heaving point absorbers. Data was collected using Qualysis motion capture of the device motion, resistive wave gauges to capture wave height data at 20 locations throughout the basin, S-shaped load cells to measure wave excitation force and radiation force, and a Vesc 6 75 to measure motor current, motor RPMs, and FOC current.

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

> This dataset and final report 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 Pacific Marine Energy Center (PMEC) at the University of Alaska Fairbanks (UAF). This work was requested by the City of McGrath, funded by the U.S. Department of Energy (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.

News & Press Releases

Eco Wave Power Advances 1 MW Wave Energy Project in Porto, Portugal; Completes Ocean Wave Assessment with MetOcean Consult and Submits Full Execution Plan to APDL – Eco Wave Power

Eco Wave Power, a global leader in onshore wave energy technology, recently announced key progress in the development of its 1 MW wave energy project in Porto, Portugal, including the completion of a wave and loads assessment conducted in co-operation with MetOcean Consult and the submission of the full execution plan to Administração dos Portos do Douro, Leixões e Viana do Castelo, S.A. (APDL). To support engineering and design optimization for the Porto project – the first megawatt-scale implementation under the Company's 20 MW concession agreement with APDL – Eco Wave Power retained the services of MetOcean Consult, a Netherlands-based consultancy specializing in independent metocean analysis, environmental data services, and numerical wave- and flow modeling for offshore, coastal, and port developments.

From Beta to Data: Marine Energy Analysis Tool Is Now Stable and Ready – NLR

A team of national laboratory researchers recently released version 1.0 of the Marine Hydrokinetic Toolkit (MHKiT)—a free, publicly available software tool used to process, analyze, visualize, and standardize marine energy data. MHKiT was initially released on GitHub in 2019. Between then and 2025, the team continually improved and updated the tool. Now, NLR researchers, along with collaborators from Sandia National Laboratories and PNNL, have released version 1.0, a stable, reliable tool that offers equivalent functionality in two platforms: MHKiT-Python and MHKiT-MATLAB. Version 1.0 features upgraded installation and run procedures that make the code more accessible in MATLAB.

Global Marine Energy Leaders C-Power, ORPC Sign Agreement to Advance Offshore Security and Defense Solutions – C-Power

ORPC, a global leader in renewable power systems that generate electricity from free-flowing river and tidal currents, and C-Power have signed an exclusive technology agreement to bring together complementary marine technologies to support reliable offshore and coastal energy and communications solutions. Under the agreement, ORPC's river and tidal current energy technology will be integrated with C-Power's industry-leading autonomous offshore power systems (AOPS) to deliver reliable, long-duration power and data communications that enable intelligent decision-making at the operational edge. The systems empower mission-critical defense and security objectives, such as maritime domain awareness and freedom of the seas.

Water Power Technologies Office Selects Eight Projects to Support Entrepreneurs and Small Businesses in Hydropower and Marine Energy – U.S. DOE

The U.S. DOE WPTO recently announced $800,000 for eight projects that support incubator or accelerator programs that enable entrepreneurship, accelerate hydropower and marine energy innovation, and support business creation and growth across the United States. The selected projects will each receive $100,000 and last six to nine months. Then up to four projects will be selected to receive up to $1 million each to continue their work over three years. Some of the selected projects include: Blue Power Accelerate: Catalyzing Innovation in Marine Energy and Hydropower; Blue Ventures for

the Pacific Northwest Water Power Program; and Constructive Interference to Impact (CI2I): Aligning Waves of Support for Marine Energy Entrepreneurs.

UK consortium leads study into floating charging hubs for electric boats – European Marine Energy Centre (EMEC)

A consortium led by Urban Foresight has been awarded funding from Innovate UK to lead CoastalCoRRE, a pioneering study exploring modular, floating e-boat charging hubs. The hubs are intended to overcome the physical, electrical and environmental constraints of remote coastal locations, where access to reliable charging remains a key barrier to the adoption of electric and hybrid vessels. The UK-based collaboration team delivering CoastalCoRRE comprises Urban Foresight, Supply Design, University of Plymouth, EMEC, Apricity and Mhor Energy. By enabling vessels to recharge closer to where they operate, CoastalCoRRE could reduce the need for oversized onboard batteries, extend vessel operational capabilities and lower emissions from existing fossil fuel-based engines.