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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!

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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 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 [American Geophysical Union \(AGU\) 2026 Annual Meeting](#) is open until 5 August 2026. Submissions are open for the oral and poster sessions, “[Marine Energy Technologies & Resource Characterization](#)”. AGU 2026 will take place on 7–11 December 2026 in San Francisco, CA, USA.

Marine Technology Society (MTS) has opened the [Call for Abstracts](#) for its [TechSurge on Next-Generation Maritime Autonomy: Uncrewed Maritime Systems Across Surface and Undersea Environments](#) until 7 August 2026. The TechSurge will take place on 6–8 October 2026 in Arlington, Virginia, USA.

The Marine Alliance for Science and Technology for Scotland (MASTS) has opened the Call for Abstracts for the [MASTS 2026 Annual Science Meeting](#) until 31 August 2026. The meeting will take place on 10–12 November 2026 at the University of Strathclyde in Glasgow, Scotland.

The [Call for Abstracts](#) for the [12th International Ocean Thermal Energy Conversion \(OTEC\) Symposium](#) is open until 15 September 2026. The symposium will take place from 30 November to 4 December 2026 in Bora Bora, French Polynesia.

Funding & Testing Opportunities

VentureWell has opened applications for Stages 0 and 1 of its [Ocean Enterprise Accelerator](#), which supports U.S. innovators with the development, commercialization, and adoption of new ocean data technologies and services. The Stage 0 Fall 2026 application deadline is August 25. An [informational session](#) will take place on 10 August 2026 from 4:00-5:00pm EDT (8:00-9:00pm UTC).

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. DOE Office of Technology Commercialization recently announced the opening of a new [Small Business Innovation Research \(SBIR\) and Small Business Technology Transfer \(STTR\) Phase I](#) award opportunity focused on four Genesis Mission-focused topic areas. This initial release precedes a broader Phase I funding opportunity expected later this fall. Submit your pitches by 10 September 2026. Applications for FY25 SBIR/STTR Phase II funding opportunities are also open until 25 September 2026 (for eligible applicants).

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

Heriot-Watt University is looking for an [Assistant Professor in Marine Energy](#) with research interests in offshore wind, wave, or tidal technologies, including hydrodynamics and resource assessment, understanding marine energy array and device interaction, application of robotics to marine renewables, and environmental engineering (to minimize environmental and social impact). Apply by 26 July 2026.

Cal Poly Humboldt's Schatz Energy Research Center is seeking one to two [Senior Project Engineers](#) to support the development and implementation of clean energy microgrid and distributed energy projects. Apply by 29 July 2026.

The Alaska Center for Energy and Power (ACEP) at the University of Alaska Fairbanks (UAF) is seeking a [Research Associate Professor of Marine Energy](#) to contribute to research, teaching, mentorship, and service while expanding externally funded research opportunities, and to serve as the co-Director of the Pacific Marine Energy Center (PMEC). Apply by 24 August 2026.

The Institute of Integrated Energy Systems (IESVic) at the University of Victoria is inviting applications for a [Postdoctoral Researcher in Energy Systems and Carbon Capture](#). The successful candidate will help direct innovative research at the intersection of carbon capture and energy systems, helping advance both theoretical and applied aspects.

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 National Laboratory of the Rockies (NLR) is hosting the final webinar in 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). The webinar 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 Conferences

The [8th Asian Offshore Wind, Wave, and Tidal Energy Conference \(AWTEC 2026\)](#) will take place on 6–10 September 2026 in Kaohsiung, Taiwan. Regular registration is available until 31 July 2026.

Ocean Energy Europe (OEE) and the Dutch Energy from Water Association (EWA) are co-hosting the [2026 International Conference on Ocean Energy \(ICOE\) and OEE Conference](#) on 5–7 October 2026 in The Hague, Netherlands. Early bird registration has been extended until 31 July 2026.

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 investigation of a novel wave-powered unmanned surface vehicle](#) – Zabihi et al. 2026

Traditional Unmanned Surface Vehicles (USVs) have typically relied on batteries or fossil fuels for propulsion, presenting challenges related to limited endurance, operational range, and carbon emissions. This paper introduces a pioneering USV design that harnesses only the orbital motion of the wave particles as its primary propulsion source. The USV consisting of multiple fin modules can move along and against the wave propagation direction. A 1:20 scale model was fabricated by Jospa Ltd and tested at the Lir National Ocean Test Facility at University College Cork. The effects of hydrodynamic and geometrical factors on the device performance including its pulling capacity and velocity were studied. The USV performs best with 45° forward fins for wave-following motion and 45° backward fins for wave-opposing motion.

Horizontal-axis tidal turbine array simulation based on blade-section model (BSM) in two-dimensional space – Aljber and Lee 2026

Understanding the hydrodynamic interactions within tidal arrays is essential for designing turbine alignment and optimising power output. While three-dimensional simulations offer detailed insight into wake dynamics and velocity recovery, their computational cost is a main challenge, especially for large-scale farm designs. This study introduces a novel two-dimensional concept to simulate a tidal turbine based on turbine blade section modelling (BSM) as a representative of the entire rotor. The model integrates the Navier–Stokes (NS) solver-based Basilisk open source with adaptive mesh refinement (AMR) and embedded boundary conditions (EBC). The NS-BSM method was validated against physical flume experiments and numerical results. Several farm layouts with one, two, and three rows of turbines were tested.

Wave Energy Converter (WEC) Requirements for Powering the Blue Economy (PBE) Applications – Hasankhani et al. 2026

Powering the Blue Economy (PBE) applications require reliable and autonomous energy sources, as many operate in remote environments far from the traditional power grid. Integrating marine energy, such as wave energy, at the required location can enhance energy autonomy and security while reducing or eliminating the dependence on traditional energy sources such as diesel. This report provides an overview of wave energy conversion technologies and their applications within the blue economy context. It reviews the main types of Wave Energy Converters (WECs) and Power Take-Off (PTO) systems, highlighting their operating principles and implementation contexts. It also addresses key reference projects, identifies opportunities and challenges for marine energy applications, and examines suitable WEC–PTO combinations for different energy demands.

MHKDR Highlight

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: Deeply Embedded Ring Anchor Fatigue Life Optimization – Mane et al. 2026

The data provided in this submission contain the analysis input files and result post-processing spreadsheets and scripts to perform the CFD analysis, load case development, strength FEA, fatigue FEA, and optimization tasks outlined in the project report. Below is a summary of the project overall. This project provided valuable qualitative and quantitative insights into the corrosion behavior, structural performance, fatigue resistance, and optimization of the Deeply Embedded Ring Anchor (DERA). This project successfully demonstrated that the DOE optimization process is a valuable tool that will allow designers to design efficient structures in a reliable and efficient way.

TEAMER: Acoustics UW Tidal Turbine – Raghukumar et al. 2025

This dataset contains underwater acoustic measurements collected around the University of Washington's pilot-scale cross-flow tidal turbine deployed at the entrance to Sequim Bay, WA through November, 2023 and February, 2024. Measurements are a combination of stationary observations at a distance of 100 m from the turbine and drifting observations that pass directly over the operating turbine. The study aimed to characterize turbine-generated sound and evaluate directional acoustic monitoring using vector sensors in a high-flow tidal environment. Measurements include calibrated acoustic pressure and three-dimensional particle velocity, supporting spectral, time-frequency, and bearing-resolved analyses of turbine sound relative to ambient and anthropogenic noise.

TEAMER: Performance Enhancement Testing and Dynamic Design Optimization of a Vertical Axis Hydrokinetic Turbine – Talpey et al. 2024

This work was conducted at the University of Washington in collaboration with Emrgy, Inc. with support from TEAMER. The University of Washington deployed multiple physical scale models of potential future design aspects in their Alice C. Tyler test flume. From this research, the impacts of different blade pitch angles, effects of variable accelerator wall to canal hydraulics, and performance improvement potential with dynamic rotor heights were evaluated. The submission contains experimental data from scale-model testing of various configurations of vertical-axis hydrokinetic turbines, a naming convention README file and the project post access report.

Marine Energy Software Updates

[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.

WEC-Sim v7.1.0 Release

[WEC-Sim \(Wave Energy Converter SIMulator\)](#) is an open-source software for simulating wave energy converters and other floating or submerged systems in the time-domain. The

software is developed in MATLAB/SIMULINK using the multi-body dynamics solver Simscape Multibody. The software can model floating offshore systems comprised of rigid, varying, and flexible bodies, joints, power take-off systems, and mooring systems. The [WEC-Sim Applications repository](#) contains a wide variety of examples that WEC-Sim can be used to model, including desalination, mooring dynamics, nonlinear hydrodynamic bodies, passive yawing, batch simulations and many others. [WEC-Sim v7.1.0](#) features updated BEMIO examples, the incorporation of IEC standards for directional wave spectra, bug fixes, documentation updates, and more!

MHKit Python v1.1.0 Release

The *Marine and Hydrokinetic Toolkit* ([MHKit](#)) is open-source software, developed in Python and MATLAB, for rapid data processing, visualization, quality control, resource characterization, and performance assessment. [MHKit-Python](#) and [MHKit-MATLAB](#) provide robust and verified functionality in both Python and MATLAB to meet data processing needs of the marine energy community. [MHKit Python v1.1.0](#) features updates to the acoustics module with enhanced millidecade and WISPR instrumentation support, Nortek Aquadopp ADCP instrumentation support in the DOLfYN module, a new ADCP wave example, and more!

MoorDyn v2.7.1 Release

[MoorDyn](#) is an open-source software package developed by NLR. It is used across the marine energy industry to numerically model mooring line and umbilical cable dynamics using a lumped mass discretization. MoorDyn is an adaptable software written in Fortran and C++, giving it the capability to couple with OpenFAST and WEC-Sim. [MoorDyn v2.7.0](#) features updates to support the Syrope constitutive model for polyester ropes, expanding the available material models for dynamic mooring analyses. [MoorDyn v2.7.1](#) complements these additions with bug fixes and robustness improvements, including enhanced error handling during initialization and revised seabed contact warnings.

Software Workshops at UMERC+METS

The [UMERC+METS 2026 Annual Conference](#) is just around the corner, happening 4–6 August 2026 at Stevens Institute of Technology. Take advantage of this unique opportunity to explore cutting-edge marine energy software tools like WEC-Sim, OpenFAST, SEA-Stack, and more from the software developers themselves in the workshop sessions. Be sure to sign up for the workshops that interest you!

News & Press Releases

[CorPower Ocean secures world-first DNV certification for wave energy technology](#) – CorPower Ocean

CorPower Ocean has been awarded the world's first DNV Prototype Certificate for a Wave Energy Converter (WEC), marking a major leap towards bankable, utility-scale wave energy. The CorPower C4 has been certified by DNV under DNV-SE-0120, Certification of Wave Energy Converters and Arrays, following independent verification. The certificate confirms the technology meets DNV's stringent requirements for structural strength, reliability and safety, establishing a new international benchmark for the wave energy industry. It also establishes a significantly reduced technology risk, unlocking the project finance, insurance and institutional investment in commercial deployment.

Dutch ocean current prototype wraps up open-water testing – Offshore Energy

Dutch Equinox Ocean Turbines (EQOT) has completed open-water testing of its ocean current prototype, collecting data used to de-risk and advance the technology toward commercial deployment. The open-water testing of the Mobula 5 1:10 prototype began in Friesland, the Netherlands, earlier this month, with the aim of advancing the technology to technology readiness level (TRL) 6, demonstrating system performance in real-world ocean conditions and validating key assumptions required for commercial-scale deployment. Equinox Ocean Turbines reported on July 22 that the open-water testing phase had been completed. The focus will now be on analyzing data on turbine control, power output, and acoustic performance, with the results to be shared soon, as the company said.

Eco Wave Power Welcomes New Israeli Government Blue-Tech Energy Initiative to Advance Marine Renewable Energy Innovation – Eco Wave Power

Eco Wave Power Global, a leading developer of onshore wave energy technology, recently welcomed the joint initiative announced by Israel's Ministry of Energy and Infrastructure and the Israel Innovation Authority to invest NIS 6 million (approximately \$2 million USD) in advancing next-generation Blue-Tech energy technologies. The new program is designed to support breakthrough marine renewable energy solutions, including wave energy generation, offshore energy systems, artificial intelligence-powered marine energy management, and related technologies. Eco Wave Power currently operates Israel's first – and to date only – grid-connected wave energy power station, located at Jaffa Port.

Virtual SIWEED game brings wave energy concepts to life – Sandia National Laboratories

How do you demonstrate wave energy without using water? You make a game. The virtual SIWEED game is based on [The Sandia Interactive Wave Energy Education Display](#), which consists of a 60-gallon tank, a model town and control software to tune a model wave energy converter, or WEC. SIWEED was built to demonstrate how a WEC transforms the movement of ocean waves into electricity, but the SIWEED's size and weight limited its portability and accessibility as a teaching tool. To make a water-free version that demonstrates the same principles, technical experts from

Sandia's Hydrodynamic Energy Systems, Ryan Coe and Daniel Gaebele, along with software development engineer intern Tristan Pank and program communications specialist Spring Booth, used Sandia's expertise in simulation software to develop a virtual version of the tank. The [SIWEED game](#) introduces wave energy concepts for learners at all levels.

Water Power Winners Emerge As Collegiate Competitions Surge – NLR

Two teams have snagged the top prizes in the 2026 Hydropower and Marine Energy Collegiate Competition finals, and 45 others have risen to the top of a record-shattering applicant pool to clinch their spots for next year's showdowns. California Polytechnic State University, San Luis Obispo (Cal Poly), claimed the Grand Prize at the fourth annual Hydropower Collegiate Competition (HCC) Final Event in Green Bay, Wisconsin. University of Southern California (USC) claimed the same high honor at the seventh annual Marine Energy Collegiate Competition (MECC) finals in Portland, Oregon. The competitions, run by NLR and funded by the U.S. DOE's Hydropower and Hydrokinetic Office (H2O), challenge cross-disciplinary teams to solve complex hydropower and marine energy challenges while competing for cash prizes.