TETHYS BLAST

12 September 2025

Tethys is a knowledge hub with information and resources on the environmental effects of wind and marine energy. The bi-weekly Tethys Blast highlights announcements and upcoming events; new documents in the Knowledge Base; and international energy news. ORJIP Ocean Energy has partnered with OES-Environmental to provide additional content. Email us to contribute!

Announcements

WEC-Sim v7.0 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 WEC-Sim Applications repository contains a variety of examples that WEC-Sim can be used to model, including desalination, mooring dynamics, and passive yawing. The WEC-Sim v7.0 release features new capabilities including enhanced variable hydrodynamics, enhanced second-order excitation forces, and the Marine and Offshore Simulation Toolkit (MOST) v2.0.0, as well as new joints, various bug fixes, improved software sustainability, and more rigorous testing.

MECC Applications Open

The U.S. Department of Energy's (DOE) Water Power Technologies Office (WPTO) has opened applications for the 2026 Marine Energy Collegiate Competition (MECC), which invites interdisciplinary teams of students from a variety of academic programs to solve marine energy challenges in the blue economy. Applications are due 19 September 2025.

SULI/CCI Applications Open

The U.S. DOE's Office of Science is accepting applications for the Spring 2026 term for the Science Undergraduate Laboratory Internships (SULI) program and the Community College Internships (CCI) program. Applications are due 1 October 2025.

SCGSR Applications Open

The U.S. DOE's Office of Science Graduate Student Research (SCGSR) program is accepting applications for the 2025 SCGSR solicitation 2 cycle. Applications are due on 5 November 2025. An application assistance workshop will be held on 9 October 2025 from 2:00-4:30pm EDT.

INORE OES-BECS Applications Open

The International Network for Offshore Renewable Energy (INORE) has opened the Call for Applications for the Blue Energy Collaborative Scholarships (BECS), sponsored by Ocean Energy Systems (OES). This grant supports research projects that spark collaborations between INOREans or need access to facilities or travel support. Applications are due 31 October 2025.

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. A second application period for the Fall 2026 Cohorts will open in December 2025 and close on 27 March 2026.

Calls for Abstracts

The Call for Abstracts for the Pan-American Marine Energy Conference (PAMEC) is open until 15 September 2025. PAMEC will take place on 12-15 April 2026 in Rio de Janeiro, Brazil.

The Call for Abstracts for Torque 2026 has been extended through 15 September 2025. Torque 2026 will take place on 3-5 June 2026 in Bruges, Belgium.

The Call for Abstracts for the 39th International Conference on Coastal Engineering (ICCE) is open through 1 October 2025. ICCE 2026 will take place on 17-22 May 2026 in Galveston, Texas, USA.

The Call for Abstracts for the 45th International Ocean Offshore and Arctic Engineering Conference (OMAE 2026) is open through 13 October 2025. OMAE 2026 will take place on 7-12 June 2026 in Tokyo, Japan.

The Call for Abstracts for the European Energy Research (EERA) DeepWind Offshore Wind Research and Innovation Conference is open through 15 October 2025. The conference will take place on 14-16 January 2026 in Trondheim, Norway.

The Call for Abstracts/Papers is open for the 36th International Ocean and Polar Engineering Conference (ISOPE 2026) through 17 October 2025. ISOPE 2026 will take place from 31 May to 5 June 2026 in Orlando, Florida, USA.

The Call for Abstracts for the 11th International Ocean Thermal Energy Conversion (OTEC) Symposium is open through 31 October 2025. The Symposium will take place on 2-3 December 2025 in Kuala Lumpur, Malaysia.

Funding & Testing Opportunities

The Maine Governor's Energy Office has issued a Request for Applications (RFA) titled, Maine BlueTech Innovation: Offshore Wind Monitoring and Testing, to advance research at the University of Maine's quarter-scale floating offshore wind demonstration project. The RFA will provide a unique in-water opportunity for small businesses to test innovative BlueTech and monitoring approaches at the site. Applications are due by 8 October 2025.

The Clean Energy Transition Partnership (CETPartnership) has opened the CETPartnership Joint Call 2025, which includes a Call Module for advanced renewable energy technologies for power production, including wind and ocean energy. Pre-proposal submissions are due 9 October 2025.

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.

Career Opportunities

The West Coast Ocean Alliance (WCOA), in partnership with Oregon Sea Grant, is soliciting applications for the 2025-2026 West Coast Ocean Alliance Fellowship program. The full-time, one-year positions provide experience in ocean policy, science, and planning activities of Tribal and State host offices participating in WCOA. Applications are due 22 September 2025.

UK Research and Innovation is looking to appoint a new Natural Environment Research Council (NERC) Science Committee Chair who will contribute to the development of current and future funding priorities and investments. Applications are due 26 September 2025.

The Scottish Association for Marine Science (SAMS) is seeking new Trustees (Non-Executive Directors) to join the SAMS Board in late Autumn 2025 and help strengthen the scientific complement, finance and audit. Applications are due 28 September 2025.

The University of Queensland is seeking three full PhD scholarships to work on the “Advanced Hydrodynamics for Offshore Renewable Energy and Resource: Wind, Solar and Aquaculture” project. Applications are due by 30 September 2025.

Ocean Conservancy is searching for a Manager for Tribal and Community Partnerships who will support Ocean Conservancy’s continued commitment to building and sustaining partnerships with Tribes, coastal communities, and others in Alaska and the circumpolar Arctic. Applications are due by 3 October 2025.

The Centre for Ocean Energy Research (COER) at Maynooth University is seeking a Senior/Post Doctoral Researcher to join the INFINITY project, a major European collaboration advancing the reliability and cost-effectiveness of wave energy. Applications are due by 5 October 2025.

The EPSRC InDustrial Centre for Doctoral Training for Offshore Renewable Energy (IDCORE) has opened applications for its four-year, full-time, Engineering Doctorate, which involves 1 year of teaching after which students are physically based with their UK sponsoring company for 3 years. Applications are due by 30 November 2025.

The Energy Control and Optimization Laboratory (ECO Lab) at the University of New Hampshire is seeking motivated candidates for two funded PhD positions starting Spring/Fall 2026. These positions are ideal for candidates with expertise in cybersecurity, AI/ML, or smart grid technologies, interested in applying their skills to wave energy systems.

Upcoming Events

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

Upcoming Webinars

The Blue Economy Cooperative Research Centre (CRC) is hosting a webinar, "Blue Economy Symposium (OMAE 2025 Vancouver)", on 17 September 2025 from 4:00pm-5:30pm AEST (6:00-7:30am UTC). The webinar will highlight five presentations from the Blue Economy Symposium held at OMAE, providing an opportunity to hear research and gain insights from industry leaders on the current and future directions of the Blue Economy. Register here.

The Marine Environmental Data and Information Network (MEDIN) is hosting the next webinar in the MEDIN 2025 Webinar Series, "Interoperability in Action: Data Standards and Marine Applications", on 17 September 2025 from 2:00-3:00pm BST (1:00-2:00pm UTC).

Pacific Northwest National Laboratory, National Renewable Energy Laboratory, and Sandia National Laboratories have teamed up for an informational Marine Energy Career Panel on 17 September 2025 from 2:00-3:30pm PDT (9:00-10:30pm UTC). Staff across various research disciplines will discuss their marine energy careers (past, present, and future) including their background, education, career path, and current projects. Register here.

Oak Ridge National Laboratory is hosting a Water Power – Technical Collaboration Program Webinar on 24 September 2025 from 2:00-3:00pm EDT (6:00-7:00pm UTC) to introduce a new initiative to provide technical support for fabricating water power technologies using advanced manufacturing and materials: the Water Power – Technical Collaboration Program (WP-TCP).

The Supergen Offshore Renewable Energy (ORE) Hub is partnering with the Marine Energy Test Area (META) and the ORE Catapult Marine Energy Engineering Centre (MEECE) to host a

webinar, "Real World Marine Energy Testing - the Benefits and Challenges", on 30 September 2025 from 1:00-2:00pm BST (12:00-1:00pm UTC). This webinar will explore the current landscape of the marine energy industry in Wales and deep dive into the practical experience of at-sea testing. Register here.

EPRI is hosting a webinar, "Wind Wildlife Research: Recent Advances in Understanding Bat Interactions with Wind Turbines Using Thermal Imagery and Acoustics", on 30 September 2025 from 8:00-9:00am PDT (3:00-4:00pm UTC). The presenters will discuss the results of three projects, led by Stantec, Bowman Consulting, and EPRI, investigating bat behavior and potential attraction hypotheses at multiple wind farms in the United States.

The Renewable Energy Wildlife Institute (REWI) is hosting a webinar, "Cataloging Wildlife Risk Minimization Technologies with the REWI Technology Catalog", on 2 October 2025 at 2:00pm EDT (6:00pm UTC). The webinar will re-introduce the recently updated REWI Technology Catalog alongside an overview of its intended uses, current features, technologies, and how you can contribute. Register here.

OES-Environmental is hosting a webinar, "Supporting Consenting Processes for Marine Renewable Energy: International Perspectives", on 2 October 2025 from 8:00-9:30am PDT (3:00-4:30pm UTC). The webinar will include presentations from OES-Environmental, The Crown Estate, and AZTI. Register here.

Upcoming Conferences

The Supergen ORE Hub is hosting its Early Career Autumn Forum 2025 on 3 October 2025 online. Register for free here by 26 September 2025.

RenewableUK and Scottish Renewables will be co-hosting Floating Offshore Wind 2025 on 12-13 November 2025 in Aberdeen, Scotland.

The Marine Alliance for Science and Technology for Scotland (MASTS) is hosting the 15th MASTS Annual Science Meeting (ASM) on 18-20 November 2025 at the University of Strathclyde in Glasgow, Scotland. Early bird registration is available until 28 September 2025.

The Environmental Interactions of Marine Renewables Conference (EIMR 2026) will take place on 13-17 April 2026 at the Scottish Association for Marine Science near Oban, Scotland.

New Documents on Tethys

Tethys hosts thousands of documents on the environmental effects of marine and wind (land-based and offshore) energy, including journal articles, conference papers, and reports.

Marine Energy

Working Group on Marine Benthal and Renewable Energy Developments (WGMBRED; outputs from 2024 meeting)) – International Council for the Exploration of the Sea (ICES) 2025

The Working Group on Marine Benthal and Renewable Energy Developments (WGMBRED) examines benthal and renewable energy related research, cause-effect relationships and develops guidelines to aid future research. This report examines the ecological implications of offshore renewable energy infrastructure on benthic ecosystems, with a focus on developing scientific methods for assessment, monitoring, and management. The overall objectives were to improve understanding of the tools and frameworks necessary to assess ecological change and inform decision-making around marine renewable energy. Key conclusions include that non-invasive techniques (e.g., imagery, eDNA) offer complementary or alternative data to extractive methods, particularly when integrated into ecosystem modelling.

Effects of electromagnetic fields on flatfish activity levels – Chapman et al. 2026

The offshore renewable energy industry is expanding rapidly due to decarbonisation commitments and need for energy security. This will change the marine environment in ways that are not fully understood, including more subsea power cables in the sea. Movement of electricity through these cables generates an electromagnetic field (EMF), which might affect marine species. To aid in ensuring the industry expands sustainably, this study aims to improve our understanding of how flatfish might be affected by EMFs. Behaviour of 61 European flounder (*Platichthys flesus*) was recorded in a large tank, with one section exposed to EMF. Two types of common EMFs were generated at realistic levels (alternating current [AC] maximum ca. 15 μT RMS and direct current [DC] maximum ca. 19.6 μT). A small pilot study was also conducted using 15 European plaice (*Pleuronectes platessa*).

A UK Science Requirements Framework for Future Marine Research Infrastructure – Hill et al. 2025

The Future Marine Research Infrastructure (FMRI) programme has launched its latest report: “A UK Science Requirements Framework for Future Marine Research Infrastructure”. Co-developed with experts from across the UK marine science community, this framework sets out the key scientific questions that will shape the future of UK marine research. At its heart are five Marine Science Grand Challenges: the role of the ocean in a changing climate; protecting biodiversity and ocean health; marine pollution: its sources, distribution and solutions; strengthening resilience to natural hazards and extreme events; and sustainable blue economy and ecosystem services. As a living document, the framework will evolve alongside the FMRI programme – informing its scoping, design, and implementation at every stage.

Wind Energy

Assessment of Federal Offshore Wind Permitting and Environmental Review Processes – Epsilon Associates 2025

> This document presents an overview of key issues that are considered as part of the leasing and permitting of US offshore wind projects. Section 2 provides a detailed review of BOEM's offshore wind area identification and leasing process, and Section 3 describes the multi-step federal permitting and review process for individual offshore wind projects. Section 4 details communication and engagement between offshore wind developers and federally recognized Tribes, agencies, fisheries, and other stakeholders. Sections 5 through 9 describe the potential impacts of offshore wind projects on navigational safety, commercial and recreational fisheries, national security, visual resources and property values, and wildlife. These sections also describe the numerous measures to avoid, minimize, and mitigate potential impacts that were implemented by BOEM during the area identification and leasing process or are imposed on developers through their permits and approvals.

Migratory Strategy is a Key Factor Driving Interactions at Wind Energy Facilities in At-Risk North American Bats – Campbell et al. 2025

> Animal migration remains poorly understood for many organisms, impeding understanding of movement dynamics and limiting conservation actions. We develop a framework that scales from movements of individuals to the dynamics of continental migration using data synthesis of endogenous markers, which we apply to three North American bat species with unexplained high rates of fatalities at wind energy facilities. The two species experiencing the highest fatality rates exhibit a "pell-mell" migration strategy in which individuals move from summer habitats in multiple directions, both to higher and lower latitudes, during autumn. We link movements to higher latitudes to encounters with wind energy facilities and report that the timing of pell-mell migration strongly overlaps with that of fatalities at the continental level.

Assessing, monitoring and mitigating the effects of offshore wind farms on biodiversity – Watson et al. 2025

> Offshore wind farms (OWFs) are integral to the global shift towards renewable energy, yet they introduce complex challenges for marine biodiversity. OWF development affects a range of species — including fish, invertebrates, seabirds and marine mammals — through noise pollution, habitat alteration, physical barriers and potential entanglement. Conversely, turbine structures can act as artificial reefs and fish refuges, enhancing local biodiversity. This Review synthesizes current knowledge of OWF impacts across their life cycle — from construction to decommissioning — highlighting both direct and indirect ecological effects, including food web changes and displacement of fisheries. The Review discusses assessment, monitoring and mitigation strategies, and emphasizes the need for more coordinated international approaches, particularly in the areas of data sharing, cumulative impact assessments and long-term ecological monitoring.

News & Press Releases

Marine Energy

Eco Wave Power Hits Historic Milestone, Launches First-Ever U.S. Wave Energy Project at Port of Los Angeles – Eco Wave Power

> Eco Wave Power has achieved a major breakthrough for renewable energy in the United States: the successful launch of its first U.S. wave energy project at the Port of Los Angeles, developed in collaboration with AltaSea and Shell Marine Renewable Energy (MRE). This historic project marks the first onshore wave energy installation in the U.S., showcasing Eco Wave Power's patented, award-winning technology and setting the stage for large-scale wave energy deployment along America's coastlines and worldwide. The demonstration site features floaters, which capture the motion of ocean waves to generate renewable electricity - proving the technology's potential to deliver reliable and clean power. While still in demonstration mode, this project provides a key foundation for commercial-scale operations, positioning Eco Wave Power as the frontrunner in the emerging U.S. wave energy sector.

Horizon Europe Funds Groundbreaking COIN Project to Boost Wave Energy Innovation – WavEC Offshore Renewables

> The COIN project (Control-Oriented INnovations for future wave energy farms) will officially launch on November 1st, 2025 with the support of the European Commission under the Horizon Europe Programme. With a total budget of €4 million, COIN brings together nine leading organisations across Europe to deliver cutting-edge control-oriented innovations that promise to improve the reliability, survivability, and sustainability of future wave energy farms. Coordinated by the Technische Universität Braunschweig (Germany), COIN answers the Horizon Europe call Critical technologies for the future ocean energy farms. The project will run for 48 months, aiming to advance ocean energy technologies to TRL 5 (Technology Readiness Level), bridging the gap between prototypes and commercial viability.

Drifting with the tides: Capturing the sound of tidal power – European Marine Energy Centre (EMEC)

> This summer, EMEC carried out a series of drifting acoustic surveys to measure the underwater soundscape around Orbital Marine Power’s O2 tidal turbine. The O2 has been operating at EMEC’s Fall of Warness tidal energy site since 2021. The surveys were conducted as part of the FORWARD2030 project, supported by the European Union’s Horizon 2020 research and innovation programme. In this article, our Environmental Coordinator, Millie Green, offers a fascinating behind-the-scenes look at how we’re monitoring underwater noise at our test sites. Drifting acoustic surveys were carried out by EMEC throughout July and August 2025 to better understand the noise generated by

tidal turbines underwater. The set up involved deploying SoundTrap hydrophones – underwater audio recorders – encased in drogues and suspended around 5 meters below the surface.

Minesto kicks off microgrid project with partners and adds local end-user applications – Minesto

Together with project partners Sev, Capture Energy and IVL, Minesto completed a planning and project set-up workshop for the 25 MSEK Microgrid Project awarded by Swedish Energy Agency. In parallel with the project, Minesto has added an integration of two local end-user applications of tidal energy in the Faroe Islands to strengthen customer involvement. The session was conducted at Minesto's head office in Göteborg. With the 1,5 days planning meeting completed, Minesto and partners have laid a good foundation to deliver a microgrid turnkey installation in Vestmanna, Faroe Islands. In parallel, work with integration of user applications is initiated together with Sev and local end users with the ambition to increase renewable energy content. Potential users in Vestmanna are in focus, with EV charging and an industrial process as the two prioritized areas for reduction of fossil energy consumption via electrification.

How the U.S. National Marine Energy Centers are Driving Innovation from Coast to Coast – National Hydropower Association

The marine environment holds an enormous, abundant energy supply—from the steady pull of tides to the power of waves. But turning these natural forces into reliable, grid-ready electricity requires something more: public infrastructure that helps de-risk innovation, training the next generation of engineers, and connecting regional expertise to national goals. That's exactly the role played by the National Marine Energy Centers (NMECs). Created through Congressional authorization in the Energy Independence and Security Act of 2007, and supported by the U.S. DOE's WPTO, the NMECs are university-based research hubs that form the backbone of U.S. marine energy R&D. Each center provides open-access testing facilities, builds regional partnerships, and develops talent pipelines that feed directly into the growing ocean economy.

Wind Energy

Innovative environmental monitoring launched at RWE's Kaskasi offshore wind farm – including European debut of a long-range drone for monitoring marine mammals and birds – RWE

RWE's Kaskasi offshore wind farm has set a milestone: for the first time in Europe, a drone equipped with a high-resolution camera system was used for offshore environmental monitoring. This technique is a low CO2-emission, and less intrusive alternative to traditional methods of observing birds and marine mammals, which are based on airplanes and ships. The drone is just one of many state-of-the-art monitoring technologies being deployed as part of RWE's SeaMe (Sustainable ecosystem approach in Monitoring the marine environment) project. The goal of the project is to develop a

holistic understanding of the interactions between offshore wind farms and the ecosystem. Alongside the drone, an AI-powered fish detection system with video cameras is being operated on an autonomous underwater vehicle. Furthermore, high-resolution video cameras have been installed on turbines to monitor birds and their behavior.

All three WindFloat® platforms installed for EFGL, the largest floating wind turbines to be installed at sea – Principle Power

All three floating wind platforms for the Les Éoliennes Flottantes du Golfe de Lion (EFGL) project have successfully been installed following wind turbine integration and pre-commissioning activities performed at Port-la Nouvelle. Located 16 km off the coast of Leucate and Le Barcarès, the project marks the second small commercial floating wind project in the French Mediterranean and a significant step toward commercial-scale deployment in Europe. EFGL is sponsored by Ocean Winds and Banque des Territories and features three WindFloat® foundations designed by Principle Power and fabricated by Eiffage Métal. These foundations hosts three Vestas V164-10 MW turbines, which are the largest wind turbines ever installed on a floating foundation, and are expected to generate enough electricity to provide power for approximately 50,000 inhabitants each year.

China's Dongfang Electric Hoists 26 MW Offshore Wind Turbine for Testing – The Maritime Executive

Dongfang Electric Wind Power completed the hoisting of the 26 MW offshore wind turbine for testing on August 29 as the industry races forward with the huge next generation of turbines. It is one of several large offshore wind turbines currently in design or testing to break the 20 MW barrier and continues China's emergence as the leader in the technology. Western companies have generally stopped efforts at turbines above 18 MW, ceding the advancements to the Chinese. Mingyang Electric showed off its 20 MW turbine a year ago, as well as unveiling its efforts at a 26 MW giant. Dongfang previewed its 26 MW model last October, displaying the nacelle. The first unit was installed in Dongying, a city in northern Shandong province. The unit consists of over 30,000 components and is designed for medium to high-speed wind areas. It says it is suited for wind speeds above approximately 18 mph (8 meters per second).

Ocean Winds celebrates the successful installation of the first foundation at the Dieppe – Le Tréport offshore wind farm – Ocean Winds

Ocean Winds (OW), the international offshore wind energy company created by EDP Renewables and ENGIE, celebrates today a new milestone in the construction of the Dieppe – Le Tréport offshore wind farm (EMDT) with the successful installation of its first turbine foundation (jacket). Located 17 km off the coast of Dieppe and 15.5 km from Le Tréport, the offshore wind farm will ultimately consist of 62 turbines, providing renewable electricity equivalent to the consumption of nearly 850,000 people. This achievement follows the installation earlier this summer of EMDT's offshore substation

and continues the steady progress of construction. The foundations are steel jackets fabricated in Spain. Measuring between 48 and 55 meters high depending on water depth, the jacket foundations are anchored into pre-installed steel piles with diameters of 2.5 meters and lengths of up to 63 meters.

Ocergy's Floating Platform Selected for Japan's Offshore Wind Observation Project – Offshore Wind

US-based Ocergy has been selected by Kyuden Mirai Energy Corporation as the floater provider for an offshore wind observation project being implemented under Japan's New Energy and Industrial Technology Development Organization (NEDO) programme. The floating wind project is being developed by Kyuden Mirai Energy, Kobe University, Rera Tech, and Cosmo Eco Power. Ocergy's OCG-data floating platform is said to enable Doppler LiDAR observations with land-equivalent accuracy in offshore conditions, a "critical breakthrough for accurate wind resource assessment". The project is scheduled to run for three years, from 2025 to 2027. It will demonstrate Ocergy's technology at the Mutsu-Ogawara Offshore Wind Observation Test site in Aomori Prefecture. The system combines low-motion OCG-data with motion reduction devices to achieve the high-precision wind measurements essential for floating offshore wind development.