TETHYS BLAST

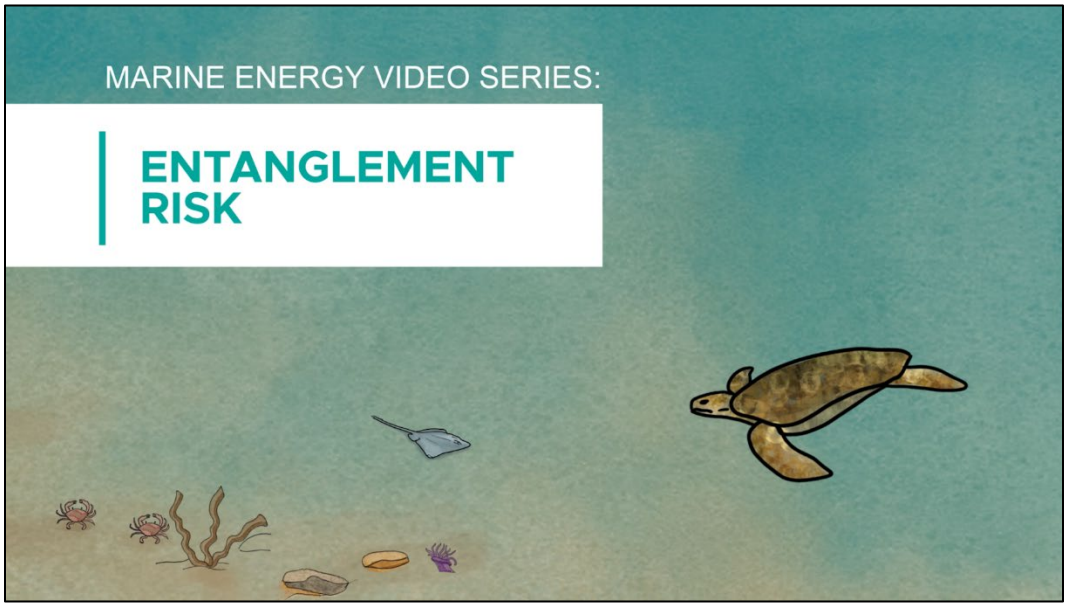
19 December 2025

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

New Entanglement Risk Video

The OES-Environmental and Atlantic Marine Energy Center (AMEC) teams at Pacific Northwest National Laboratory (PNNL) recently released a new, short video that describes the entanglement risk associated with marine energy mooring lines and cables. View the full marine energy video series here.



Calls for Abstracts

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 Abstracts for the U.S. Department of Energy's Data Days Workshop (D3 2026) is open through 9 January 2026. D3 will take place on 3-5 March 2026 in Chantilly, Virginia, USA.

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, USA. 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

Innovate BC and Centre for Ocean Applied Sustainable Technologies (COAST) have launched the first Innovation Challenge, which seeks demonstration-ready technologies with capabilities that can accelerate efforts on behalf of the Canadian Coast Guard, the maritime industry, and coastal communities to decarbonize, and transition to clean energy. Apply by 31 December 2025.

Fundy Ocean Research Centre for Energy (FORCE) has released a Request for Proposals for its Ocean Sensor Innovation Platforms (OSIP) project. FORCE is seeking proposals to design, procure, and install an offshore platform hybrid power system to power the OSIP floating sensor platform in the Minas Passage (Canada). Proposals are due by 16 January 2026.

The Offshore Wind Growth Partnership's Industrial Growth Fund is seeking proposals from UK-based organizations willing to expand existing or build new supply chain facilities that align with the 2024 Industrial Growth Plan priorities, including smart environmental services. Complete the eligibility form by 19 December 2025 and submit your full application by 21 January 2026.

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 1) Understand and minimise the environmental impacts of offshore wind energy, 2) De-risking wave energy technology development through transnational pre-commercial procurement of wave energy research and development, and 3) Improved reliability and optimised operations and maintenance for wind energy systems. Proposals are due by 17 February 2026.

BlueActionBANOS (Baltic and North Sea) has launched a Community-Led Actions Open Call, which is designed for multi-partner projects that will scale up and deploy established solutions, and its 1st Transition Agendas Open Call, which is for foundational planning and strategic development at the local level. Apply by 29 May 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

The Gulf of Maine Research Institute (GMRI) is seeking a Climate-Ocean and Coastal Law & Policy Research Specialist to investigate and analyze how climate, ocean, and environmental science can inform and interact with legal, regulatory, and broader governance frameworks. Apply by 20 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.

Environmental Research Institute (ERI) is currently recruiting for an Energy Innovation Coordinator and an Energy Innovation Research Associate to support energy knowledge exchange and innovation activity. Apply by 5 January 2026.

The University of East Anglia is offering a funded PhD project, Next-Generation Marine Ecosystem Indicators: Machine Learning for Smarter Marine Spatial Planning in a Changing Climate. Apply by 7 January 2026.

Heriot-Watt University is offering a funded PhD project (for UK students) that aims to enhance open-source modelling of a floating tidal turbine reference model. Apply by 18 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.

Dr. Linda D'Anna and Dr. Eric Wade are recruiting a PhD student to study the social dimensions of ocean energy. The student will be based at North Carolina State University and participate in Atlantic Marine Energy Center (AMEC) activities. Apply 31 January 2026.

The University of Manchester is 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.

The Biodiversity Consultancy is hiring a Sustainable Infrastructure Researcher to support its clients integrate nature into business decision making through the development and implementation of corporate and site-based strategies for nature.

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

NetZero Atlantic is hosting a webinar, "Reviewing Phase 2: Offshore Wind Integration & Transmission Study", on 15 January 2026 from 1:00-2:00pm AST (5:00-6:00pm UTC).

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 National Offshore Wind Research & Development (NOWRDC) is hosting the hybrid 2026 NOWRDC Technical Symposium on 9-10 February 2026 in New York City, New York, USA and online. Early bird registration is available through 31 December 2025.

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

Offshore Wind California is hosting the 2026 Pacific Offshore Wind Summit on 18-20 May 2026 in Long Beach, California, USA. Save the date!

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

Passive Acoustic Monitoring of a Riverine Turbine with Stationary Hydrophones – Cotter et al. 2025

> In this study, we characterize the sound generated by a cross-flow riverine turbine in the Kvichak River near Igiugig, Alaska, United States. To do this, we follow the International Electro-technical Commission (IEC) technical specification for characterization of the acoustic emissions from marine energy converters. The results indicate that turbine sound at the measurement locations was not predicted to be harmful to marine mammals. Results also provide insight into the acoustic characteristics of current energy converters and the complex acoustic propagation in rivers.

Environmental impacts from the widespread implementation of ocean thermal energy conversion – Nickoloff et al. 2025

> Ocean thermal energy conversion (OTEC) is a renewable energy system that could potentially displace significant amounts of fossil fuel-generated electricity. This study presents numerous multi-century simulations of the University of Victoria Earth System Climate Model, a coupled climate-carbon cycle model, to better understand the global-scale environmental impacts of the widespread implementation of OTEC at varying total power levels (3, 5, 7, 10, and 15 TW). Environmental impacts include reduced warming of the sea surface by up to 3.1 ºC, increased heat uptake at intermediate depths, and enhanced biological production compared to a fossil fuel intensive control scenario.

Post Access Report: Acoustic Particle Velocity Measurements around a Tidal Current Turbine – University of Washington (UW) 2024

> Quantifying the underwater sound produced by tidal turbines is essential both to understand their potential environmental impacts and to understand how that sound might interfere with the intended application of the turbine (e.g., powering acoustic monitoring systems). In this project, we measured the sound radiated by a small-scale crossflow tidal turbine. The turbine was deployed from October 2023 to March 2024 in the tidal channel at the entrance to Sequim Bay, Washington, USA. Acoustic measurements were made with three different sensor packages: a commercial-off-the-shelf vector sensor (operated by PNNL), a vector sensor array (operated by Integral Consulting), and drifting hydrophones (operated by UW).

Wind Energy

Evaluating environmental impacts and public preferences in offshore wind farm decommissioning – Stranddorf et al. 2026

> The expansion of offshore wind energy presents new challenges as many wind farms approach the end of their operational lives and will need to be decommissioned. This study presents the first multi-criteria assessment of offshore wind farm decommissioning scenarios that brings together life cycle environmental impacts, local marine benthic biodiversity impacts, and public preferences. Using Horns Rev 1 – the oldest large-scale wind farm in the North Sea - as a case study, we analyze 16 decommissioning scenarios ranging from full removal of infrastructure to partial removal strategies in which parts of the foundation, scour protection, or cables are left in place.

High-resolution multi-sensor technology reveals low collision risk to seabirds in offshore wind farms – Skov et al. 2025

> Monitoring of flying seabirds at offshore wind farms (OWFs) has a short history and, unsurprisingly, most studies have focused on the potential for collisions. However, strong evidence of collision mortality in seabirds or other groups of birds has been lacking due to the absence of empirical data on meso- and micro-avoidance behaviour inside OWFs. We studied the meso- and micro-avoidance behaviour of seabirds in the 11-turbine Aberdeen OWF in the North Sea over two breeding seasons using an advanced automated multi-sensor detection system with integrated high-resolution radar and powerful digital cameras which constituted a further development of integrated radar-camera systems.

Assessing the Performance and Environmental Effects of Offshore Wind Cathodic Protection: Modeling and Field Insights – Afshari et al. 2025

> This study evaluates the expected long-term performance and environmental effects of galvanic anode cathodic protection (GACP) systems for offshore wind monopiles. A numerical model was developed and compared to field data to simulate protection performance over a 25-year design life. The model incorporates key factors such as coating degradation, oxygen limiting current density, surface film resistance, dimensional changes of the anode over time, and anode quantity. Based on the simulations, the metal emission of Al-Zn-In anodes per monopile was estimated at approximately 20%–36% of the total anode mass, corresponding to configurations with 50 and 25 anodes, respectively.

News & Press Releases

Marine Energy

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.

Wave and tidal energy to reach $1.85B by 2032, commercial deployment by 2031, report finds – Offshore Energy

The wave and tidal energy market is projected to grow to $1.85 billion by 2032, with ocean-based renewable power expected to move beyond pilot installations and enter early commercial deployment by 2031, according to a report by market research firm DataM Intelligence. The global wave and tidal energy market reached $983.11 million in 2024 and will be expanding at a compound annual growth rate of 8.23% during the forecast period 2025–2032 to reach the expected growth to $1,850.90 million by 2032, representing a reflection of a decisive shift in global renewable energy strategies, where predictability, grid stability, and baseload capability are becoming as critical as decarbonization.

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.

Australia Opens a Wave Data Portal – Marine Technology News

Oceanographers from The University of Western Australia (UWA) are supporting science-based management of coastal resources by expanding the use of ocean buoys for recording wave data and making it freely available. Most recently, they have advanced wave forecasting capabilities by deploying a fleet of 10 drifting wave buoys in the Southern Ocean between the Western Australian coast and South Africa. These small, solar-powered wave buoys are expected to float in ocean currents and collect wave data for several years. The drifting buoys are part of a larger wave buoy network that is currently supporting a range of research projects focused on improving wave forecasting,

coastal dynamics along reef-fronted coasts, marine heatwaves, wave energy development, and the long-term Western Australian wave climate.

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.

Wind Energy

Ecowende, CAPE Holland and GBM Works pioneer innovative monopile installation techniques to reduce underwater noise – Ecowende

Ecowende, in collaboration with CAPE Holland and GBM Works, is pioneering innovative installation techniques for XXL monopiles at the Ecowende offshore wind farm. The project focuses on vibro-based technologies designed to reduce underwater noise and minimise impacts on marine life during monopile installation. As offshore wind turbines grow larger, so do their monopiles. Traditional impact pile driving produces powerful underwater sound waves that can disturb marine mammals, such as harbour porpoises. Even with mitigation measures like bubble curtains and resonator arrays, underwater noise remains a concern. Ecowende and partners have therefore explored alternative and innovative installation methods with the aim to reduce the ecological footprint of wind farm construction.

Poland Holds First Offshore Wind CfD Auction – Offshore Wind

Poland's Energy Regulatory Office (Urząd Regulacji Energetyki, URE) held the country's first offshore wind Contract for Difference (CfD) auction on 17 December, offering 4 GW of capacity. Earlier this year, Equinor and Polenergia submitted a pre-qualification application to URE for their Bałtyk 1 offshore wind farm project to participate in the first offshore auction in Poland. The offshore wind farm is planned to have an installed capacity of up to 1,560 MW. In November, Polska Grupa Energetyczna (PGE) announced that it had obtained environmental approval for its 900 MW Baltica 1 offshore wind project, clearing the way for its participation in the offshore wind auction. Orlen Group has also secured the environmental permit for its 1 GW Baltic East offshore wind farm, and the developer said last month that the milestone brings the project closer to participation in the first Polish offshore wind auction.

Star of the South takes major leap forward – Star of the South

Australia's most advanced offshore wind project Star of the South is charging ahead, recently achieving four major milestones and driving the next stages of development to unlock a new wave of clean energy. In a first for Australia, Star of the South has lodged its Environmental Impact Statement for approval under the Environment Protection and Biodiversity Conservation (EPBC) Act. This is the primary environmental approval required for the project to proceed. This comes off the back of executing a major land purchase where the project's cables will come to shore, securing renewed Major Project Status with the Commonwealth Government, and formally entering into an Engagement Agreement with the Traditional Owners through the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC).

CIP Secures Project Site in Colombia's First Offshore Wind Tender – Offshore Wind

Denmark's Copenhagen Infrastructure Partners (CIP) has secured the site for which it placed a bid in Colombia's first offshore wind tender, according to the latest document issued by the country's National Hydrocarbons Agency (ANH). ANH released a final eligibility list on 16 December, naming CIP's subsidiary CI GMF COÖPERATIEF UA as the eligible bidder to receive a permit for an offshore wind farm site off Barranquilla. According to the tendering process timeline (updated in August 2025), ANH will now notify the company of the site award while, at the same time, the period for appeals and the process with the Ministry of Mines and Energy starts. The next steps should be completed by the end of March 2026.

Ministry of Energy will award Two Project Areas for Offshore Wind in Utsira Nord – Norwegian Ministry of Energy

The Ministry of Energy has evaluated the two applications for the allocation of project areas for floating offshore wind in Utsira Nord. It is now confirmed that each applicant will be awarded their own project area. Both applicants met the qualification requirements and provided good responses to the qualitative criteria. Groups that will be awarded project areas are 1) Equinor Utsira Nord AS and Vårgrønn Utsira Nord AS and 2) Harald Hårfagre AS (Deep Wind Offshore Norway AS and EDF Renouvelables International SAS). Following the allocation of project areas, the companies may submit proposals for project-specific impact assessment programmes, conduct assessments and apply for licences. Licence applications must be submitted within two years of the approval of the impact assessment programme.