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[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!

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Announcements

[Tethys Events Calendar](#)

The [Tethys Events Calendar](#) highlights key events from around the world related to wind and marine energy, including conferences, workshops, and webinars. If you would like to recommend an event for the calendar, please email tethys@pnnl.gov.

[Calls for Abstracts](#)

The American Fisheries Society (AFS) has opened the [Call for Abstracts](#) for the [155th AFS Annual Meeting](#) through 15 April 2025. The meeting will take place 10-14 August 2025 in San Antonio, Texas, USA.

The Call for Abstracts for the [Structures in the Marine Environment \(SIME\) 2025 Conference](#) is open until 16 April 2025. SIME will take place on 23-24 June 2025 in Edinburgh, Scotland.

The Call for Abstracts deadline for the [12th Partnership for Research in Marine Renewable Energy \(PRIMaRE\) Conference](#) has been extended through 17 April 2025. The conference will take place on 2-3 July 2025 at the University of Bristol in Bristol, England.

The [Call for Abstracts](#) for the 2025 North American Wind Energy Academy (NAWEA) / WindTech Conference is open through 17 May 2025. [NAWEA/WindTech 2025](#) will take place 14-17 October 2025 in Dallas, Texas, USA.

The Call for Proposals for sessions and town halls at the [2026 Ocean Sciences Meeting \(OSM\)](#) is open until 28 May 2025. OSM will take place on 22-27 February 2026 in Glasgow, Scotland.

BOEM Seeking Public Comment

The U.S. Bureau of Ocean Energy Management (BOEM) has released a Draft Finding of no historic properties affected for passive acoustic monitoring (PAM) activities on the Atlantic Outer Continental Shelf. [Public comments on the draft findings](#) are due 26 April 2025.

Funding & Testing Opportunities

The OASIS project has opened its first [Support Call of the OASIS Accelerator Programme](#), which will support start-ups and small and medium-sized enterprises in the Interreg North Sea Region that are developing solutions in energy storage, hydrogen, digitalization, energy management, and system integration. Applications are due 18 April 2025.

The Testing Expertise and Access for Marine Energy Research (TEAMER) program, sponsored by the U.S. Department of Energy and directed by the Pacific Ocean Energy Trust (POET), is accepting [Request for Technical Support \(RFTS\) 16](#) applications through 6 June 2025 to support marine energy testing and development projects. Open Water Support applications can be submitted any time. TEAMER also offers [Results Dissemination Support](#) (e.g., travel support).

Career Opportunities

The Crown Estate has opened applications for the [Marine Futures internship programme](#), which provides full time, paid opportunities for interns to develop skills in specialist areas including, marine conservation, fisheries, renewable energy development, marine policy, and community engagement. Applications are due 11 April 2025.

The Scottish Government is seeking a [Senior Marine Ornithologist](#) to provide scientific advice on marine birds, including on regulatory, planning, and policy workstreams related to marine renewable energy development. Applications are due 21 April 2025.

JASCO Applied Sciences is looking for two [Marine Research Equipment Technicians](#) to join the Brisbane, Queensland, Australia office and work on projects related to environmental assessments for oil and gas activities and marine construction, including renewable energy.

Monmouth University is seeking applications for a [Marine Fisheries Acoustic Telemetry Scientist](#) in the Biology Department in the School of Science. This is a one-year, grant-funded position for fisheries monitoring related to offshore wind development off the New Jersey coast.

The National Offshore Wind Research and Development Consortium (NOWRDC) is hiring a [Marketing and Policy Intern](#) to support digital communications and outreach efforts, including improving NOWRDC slide decks and website content to showcase the impact and key takeaways of funded offshore wind research and development projects.

University of Hawai'i at Manoa is looking for an [Assistant Professor or Associate Professor of Marine Energy](#) to support the Department of Ocean and Resources Engineering and Hawai'i Natural Energy Institute, whose mission is to research, develop, test, demonstrate, and validate cost effective and practical solutions to deliver renewable energy and energy efficiency.

Upcoming Events

Upcoming Webinars

The Supergen Offshore Renewable Energy (ORE) Hub is hosting a webinar, "[Community Perspectives of Wave Energy and Open-Water Testing at PacWave, Oregon](#)", on 29 April 2025 from 4:00-5:00pm UTC. This session will explore the factors that influence public responses to new developments and help us to understand what may slow or hinder the planning and consenting processes. [Register here.](#)

TEAMER is hosting a webinar, "[How to Write a Good Test Plan](#)", on 30 April 2025 from 11:00am-12:00pm PDT (6:00-7:00pm UTC). The webinar will focus on what makes up a good scientific test plan, including info specific to marine energy research and the TEAMER program. [Register here.](#)

Upcoming Conferences

The [2025 All-Energy Exhibition and Conference](#) will take place on 14-15 May 2025 in Glasgow, Scotland.

The [7th International Conference on the Effects of Noise on Aquatic Life \(Aquatic Noise 2025\)](#) will take place from 29 June to 4 July 2025 in Prague, Czech Republic.

The [Ocean Renewable Energy Conference \(OREC\)](#) will now partner with the [2025 University Marine Energy Research Community \(UMERC\) Conference](#), which will take place on 12-14 August 2025 at Oregon State University in Corvallis, Oregon, USA.

The [8th Conference on Wind Energy and Wildlife Impacts \(CWW 2025\)](#) will take place on 8-12 September 2025 in Montpellier, France. Reduced registration rates are available until 30 April 2025.

Upcoming Masterclasses

The Supergen ORE Hub is hosting a series of [masterclasses](#), including a [Masterclass on Virtual Prototyping of Offshore Renewable Energy Technologies](#) on 30 April and 1 May 2025 at the National Decommissioning Centre in Aberdeen, Scotland; a [Masterclass on Environmental Contours and Extreme Value Analysis](#) on 15-16 May 2025 at the University of Exeter in Exeter, England; and a [Masterclass on Offshore Geotechnics](#) on 27-28 May 2025 at the University of Southampton in Southampton, England.

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

[Effects and management implications of emerging marine renewable energy technologies](#) – Copping et al. 2025

Offshore renewable energy development is being led by offshore wind, with energy from waves, tides, and large run of the river turbines also increasing. However, there are additional marine renewable energy technologies that will help to fill in gaps of availability and location for power production. These emerging technologies are generally less well known, including ocean thermal energy conversion, seawater air conditioning, power from salinity gradients, and floating solar photovoltaics (floatovoltaics). Coupled with each of these power production systems is the need for energy systems at sea to aid in storage and transport of the energy. This paper describes the new technologies and explores the potential effects on the marine environment and wildlife and recommends approaches to their management.

[Tidal Stream Energy Project: Collision Risk Data and Evidence Summary](#) – Phillips et al. 2025

The aim of this data summary is to provide an overview of environmental monitoring data collected to date on operational or decommissioned tidal stream energy projects in the UK and globally, to assess the impacts these devices may have on marine species. The data and evidence summarised in this report primarily explores the issue of collision risk for marine mammals, as this risk remains a significant barrier to tidal stream consenting and a key concern for regulators. This project's purpose is to recognise what data has been collected to date, draw insight from monitoring, and how monitoring conclusions can inform future tidal stream energy developments in the UK. A primary objective of this report has been to assess monitoring methods used at tidal stream sites, with a particular focus on impact monitoring techniques, in order to better understand the evidence base relating to collision risk and possible displacement.

[A marine energy and ecosystem service framework for coastal communities](#) – Buenau et al. 2025

A structured framework for relating marine energy to ecosystem services during project planning and evaluation is needed to facilitate community decision-making and extend beyond methodologies that focus exclusively on environmental impacts. This study addresses that need by providing a framework with three pathways—physical processes, ecosystem processes, and human activity—that mediate effects of marine energy on ecosystem services and community values, both positively and negatively. Conceptual models for each pathway provide details of hypothesized relationships with a summary of

available evidence. This study identifies effects that may require mitigation as well as co-benefits and opportunities for synergistic projects that can be considered during a planning process.

Wind Energy

[Exploring development of spatially stratified wind turbine collision risk prior distributions for eagles: An application of adaptive management](#) – Howell et al. 2025

The U.S. Fish and Wildlife Service (Service) incorporates an adaptive management framework directly into their eagle permitting process to balance energy development with managing incidental eagle fatalities resulting from otherwise lawful activities. Specifically, the Service uses a collision risk model that combines prior probability distributions describing exposure and collision risk with site-specific data to predict eagle fatalities from wind energy facilities and prescribe compensatory mitigation. As new site-specific data become available, they can be incorporated into the existing prior probability distributions, allowing for more informed management decisions in the future. Here, we present and demonstrate flexibility of the adaptive management framework by exploring stratification of existing exposure prior distributions to better capture spatial variation in the abundance of bald and golden eagles within the coterminous U.S.

[Site and species dependent effects of offshore wind farms on fish populations](#) – Bicknell et al. 2025

The expansion of offshore wind energy capacity is changing the seascape with the large-scale introduction of turbines and associated infrastructure. Subsurface structures can influence the abundance, distribution and behaviour of some marine fish species by providing artificial habitat and food resources that supplements natural occurrence. At two of the highest latitude operational wind farms the abundance, biomass and size of haddock and flatfish was higher close to jacket turbine foundations, with the effect larger at the older and more complex foundations. The results provide further evidence of the fine-scale impacts of offshore wind turbines on demersal fish and illustrate their species and site-specific nature. Quantifying how these changes may have positive or negative effects on local ecosystems and scale up to networks of wind farms is a challenge, but will be required if potential future wind farm consenting policies are to be addressed.

[Activity-based Informed Curtailment: Using Acoustics to Design and Validate Smart Curtailment to Reduce Risk to Bats at Wind Farms](#) – Peterson et al. 2025

This study spanned a period of nearly five years, beginning with an initial demonstration, based on data collected previously at a pair of wind energy facilities in West Virginia, that acoustic exposure and bat fatality rates were positively correlated across multiple timescales. Building on this successful proof-of-concept, we conducted an intensive acoustic monitoring effort to supplement ongoing bat carcass monitoring at the Orient and Arbor Hill wind energy facilities in Iowa in 2021–2023; this effort was expanded in 2022–2023 to additional facilities throughout Iowa, with acoustic monitoring occurring

at a total of 210 turbines at 13 wind energy facilities across the state. The overall purpose of this research project was to demonstrate how acoustic data from turbine-mounted bat detectors could be used to design curtailment strategies that achieve equivalent reduction in bat fatality while resulting in less energy loss and subsequently measure the effectiveness of these strategies.

News & Press Releases

Marine Energy

[BiMEP contract signed for ACHIEVE CETO Deployment](#) – Carnegie Clean Energy

Carnegie Clean Energy recently announced that subsidiaries CETO Wave Energy Ireland and Carnegie Technologies Spain have entered a contract with the Biscay Marine Energy Platform (BiMEP) for the installation and testing of the CETO wave energy technology at the BiMEP site under the ACHIEVE Programme. Building on the previously signed Berth Reservation Agreement, this contract finalizes key terms for the installation, operation and decommissioning of CETO at the BiMEP site over two years. BiMEP will provide access to infrastructure at sea (such as berth mooring area, submarine power cable, subsea electrical connector and fiber optics cables) and infrastructure on the mainland (including electrical substation, power lines and office space) which will enable CETO to be deployed and deliver electricity to the grid.

[Province Prepares Tidal Energy Procurement](#) – Nova Scotia Government

Companies interested in testing tidal energy projects in the Bay of Fundy will be able to apply for a site in the Minas Passage later this spring. Nova Scotia has the highest tides of the world and there is great potential to harness them to generate electricity, create more green jobs and attract more investment. The Province is hiring consultant Power Advisory LLC to manage a procurement to fill two vacant berths at the Fundy Ocean Research Centre for Energy (FORCE) near Parrsboro. Power Advisory LLC will start the procurement in May. The Department of Energy will grant licences and power purchase agreements with Nova Scotia Power to successful applicants. Licence holders will develop agreements with FORCE to use the facility.

[Eco Wave Power Secures Final Permit for Pioneering Wave Energy Project in the Port of Los Angeles](#) – Eco Wave Power

Eco Wave Power recently announced that it has been granted Revocable Permit 25-05 by the Port of Los Angeles for the construction and demonstration of its innovative wave energy technology at Berth 70 in San Pedro, California. This permit is the final approval required for Eco Wave Power to commence construction of its pilot project, following it receiving a federal Nationwide Permit (NWP) 52 for Water-Based Renewable Energy Generation Pilot Projects granted by the U.S. Army Corps of Engineers in November

2024. With all necessary permits secured, the Company is set to move forward with implementation, which is expected to be completed within 2-3 months.

IECRE Feasibility Statement issued to Orbital Marine Power for pioneering O2-X Tidal Energy Converter – Llyod’s Register

Lloyd’s Register (LR) has awarded an International Electrotechnical Commission for Renewable Energy (IECRE) Feasibility Statement to Orbital Marine Power for its O2-X Tidal Energy Converter (TEC). The IECRE is a global renewable energy conformity assessment system and a part of the International Electrotechnical Commission (IEC). It provides a globally recognised framework for certifying marine energy technologies, ensuring transparency and credibility for investors, regulators, and industry stakeholders. As an evolution of the company’s existing O2 turbine, currently deployed in the Fall of Warness, Scotland, the O2-X is expected to generate 2.4MW of predictable, renewable energy from tidal flows.

Arup collaborates with WaveX to advance wave energy technology – ARUP

Arup and WaveX, a wave energy technology company headquartered in Perth, Australia, announced the signing of two separate Memorandums of Understanding to collaborate on wave energy projects. Under the agreements, Arup will support WaveX in the design of its D-Spar™ wave powered generator technology, a new type of self-reacting wave energy conversion system with no underwater moving parts, designed to harness the power of ocean waves and convert it into renewable electricity. The initial collaboration will focus on the D-Spar™ electrical design and power transfer unit integration in collaboration with Trident Energy technology. In parallel, a separate workstream will assess the potential incorporation of Arup’s proprietary shared mooring system design into the planned large-scale D-Spar™ project on the south coast of Western Australia.

Wind Energy

New growth and employment opportunities as next generation of offshore wind reaches critical milestone – The Crown Estate

Plans for a new generation of floating wind farms off the coasts of Wales and South West England moved a step closer as the leasing round for three sites in the Celtic Sea entered its final stages. The Crown Estate – which manages the seabed around England, Wales and Northern Ireland – also revealed that, as part of the process, companies bidding to build the new wind farms shortlisted a range of potential locations in Wales and South West England for the assembly and deployment of the new turbines. As part of the process, Bidders have submitted proposals for developing the new wind farms, alongside plans for creating new opportunities for jobs and economic regeneration and working with ports. Evaluation of these proposals from the first stage of the tender (known as ITT Stage 1) has now concluded, with successful Bidders invited to progress to the final stage (ITT Stage 2). This will involve an auction for the three sites later in the Spring.

Fugro and Spoor Create AI Bird-Monitoring Solution for Offshore Wind Farms – Marine Technology News

Fugro and Spoor, a software company that helps renewable energy projects reduce their environmental impact, have signed a memorandum of understanding (MOU) to develop a new bird-monitoring solution for offshore renewable energy projects. This system will not only help protect bird populations but also supports the growth of renewable energy by making environmental assessments more affordable and safer. The solution uses video cameras installed on Fugro's SEAWATCH® Wind Lidar and other metocean buoys to record bird activity at wind farm locations. Spoor's computer vision and AI software then analyses these recordings to quickly and accurately identify bird species. The launch of this new bird-monitoring solution was successfully tested at Hywind Tampen offshore wind farm in the Norwegian North Sea.

Siemens Gamesa Installs World's Most Powerful Wind Turbine at Denmark Test Site – POWER

Siemens Gamesa has completed work on what to date is the world's most powerful installed wind turbine. The final blades for the 21.5-MW prototype offshore turbine were installed April 2 at the Østerild test center in northern Denmark. Development of the turbine, the latest entrant in a global race to build ever-larger offshore wind turbines, was first reported in June 2024. Siemens Gamesa last year said the so-called HIPPOW project, part of the European Green Deal program, "will deliver the installation, operation, and testing of the world's most powerful offshore wind turbine prototype. It will validate several new technological developments and obtain the necessary certifications, before starting full-scale production of Siemens Gamesa's next offshore wind turbine model."

Industry Calls for Europe to Auction 100+ GW of New Offshore Wind Capacity in Next Decade, Commits to Lowering LCOE by 30 Pct – Offshore Wind

The European wind industry has proposed a New Offshore Wind Deal for Europe that calls on the governments to auction at least 10 GW of new offshore wind capacity per year, in total, from 2031 to 2040, while the industry has committed to reducing the levelised cost of electricity (LCOE) by 30 per cent by the end of the next decade. Published on 10 April during the WindEurope annual event in Copenhagen, the New Offshore Wind Deal for Europe is being proposed to accelerate and de-risk the buildout of "homegrown and competitive offshore wind energy" at a time when "Europe faces unprecedented challenges". The industry is asking the governments across Europe to auction out at least 100 GW through Contracts for Difference (CfDs) over ten years with firm political commitment through fixed price and indexed contracts in an optimised and de-risked auction framework to create bankable projects.

UK Government gives 'green light' to Rampion 2 Offshore Wind Farm project off the Sussex coast – RWE

Secretary of State for Energy Security and Net Zero has awarded a Development Consent Order (DCO) for the Rampion 2 Offshore Wind Farm project, which is being developed off the Sussex coast. Development of the project, an extension to the existing Rampion Offshore Wind Farm nearby, is being led by global renewables company RWE, on behalf of joint venture partners, a Macquarie-led consortium and a subsidiary of Enbridge Inc., a leading North American energy infrastructure company. Once fully operational, Rampion 2 would be capable of powering the equivalent of over one million UK homes. Rampion 2 is planned to comprise up to 90 wind turbines and foundations off the coast of Sussex. Subsea cables will bring the power to shore under Climping Beach.