



**9 May 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!

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## Announcements

### [Tethys User Feedback Survey](#)

We are seeking feedback on Tethys! Please complete this 3-minute [Tethys User Feedback Survey](#) to help us understand how the wind and marine energy communities use Tethys and determine how we can continue to improve the site.

#### **Tethys User Feedback Survey**

We are requesting feedback on [Tethys](#), an online knowledge hub with information and resources on the environmental effects of wind and marine energy around the world. This short, 3-minute survey will cover the following topics:

- User background
- How Tethys is used
- How Tethys can be improved

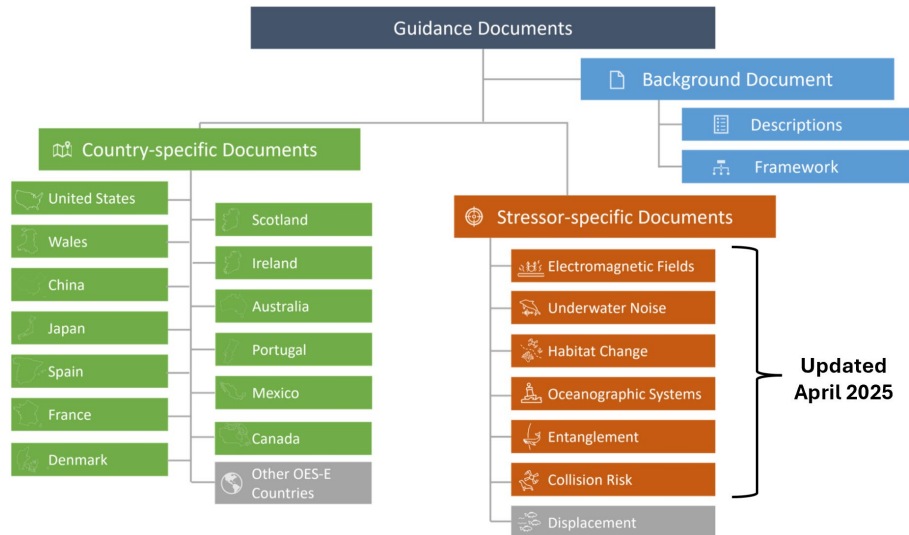
Please share this survey with any colleagues that may be able to provide additional information, and email [tethys@pnnl.gov](mailto:tethys@pnnl.gov) if you have any questions or additional feedback.

1. What is your role?

- Researcher
- Developer
- Regulator

## Updated Stressor-Specific Guidance Documents

OES-Environmental recently published updated [Stressor-Specific Guidance Documents for Risk Retirement](#), including for electromagnetic fields, underwater noise, habitat change, collision risk, oceanographic systems, and entanglement. The documents provide links between information on environmental effects of marine renewable energy and relevant legislation and regulations.



## 2025 UMERC + OREC Travel Support

The Pacific Ocean Energy Trust (POET) is offering [Registration and Travel Support](#) for the [2025 University Marine Energy Research Community \(UMERC\) Conference](#) and [Ocean Renewable Energy Conference \(OREC\)](#), which will both take place on 12-14 August 2025 at Oregon State University in Corvallis, Oregon, USA. Applications are due by 15 May 2025. Early bird and student registration rates are also available.

## Request for Information

Pacific Northwest National Laboratory (PNNL) is [requesting information](#) from developers, owners, and/or manufacturers of small-scale current energy devices capable of deployment and operation to power coastal aquaculture operations. Responses are due 6 June 2025.

## Calls for Abstracts & Papers

The Call for Abstracts for the [12th Partnership for Research in Marine Renewable Energy \(PRIMaRE\) conference](#) is open through 9 May 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 [Marine Renewables Canada 2025 Conference & Exhibition](#) is open until 16 May 2025. The event will take place 12-14 November 2025 in Halifax, Nova Scotia, Canada.

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.

Springer Nature has opened a [Call for Papers on Ocean Energy](#) for *Scientific Reports* and invites original research on the ocean as an energy source, from technological advances, to modelling or field studies on its ecological impact. The submission deadline is 20 November 2025.

### Funding & Testing Opportunities

The Testing Expertise and Access for Marine Energy Research (TEAMER) program, sponsored by the U.S. Department of Energy and directed by 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).

The U.S. Department of Energy's [Energy Technology Innovation Partnership Project \(ETIPP\)](#), which helps U.S. coastal, remote, and island communities become more energy resilient, has opened applications for new communities to join. Applications are due 27 June 2025.

### Career Opportunities

The California State Lands Commission is hiring an [Environmental Program Manager I](#) to formulate and administer the Commission's programs to address issues on state lands, plan for the implementation of offshore renewable energy projects, and address other environmental challenges of concern. Applications are due 10 May 2025.

The Scottish Association for Marine Science (SAMS) is seeking applicants for a funded PhD project, "[Progressing harbour porpoise conservation research: optimising vessel-based and static data collection and analyses for offshore renewables and Marine Protected Area monitoring](#)". Applications are due 15 May 2025.

University of Highlands and Islands (UHI) North, West and Hebrides is recruiting a [Research Associate in Active Acoustic Monitoring](#), [Research Associate in Passive Acoustic Monitoring](#), [Research Associate in Marine Sensing](#), and [Research Associate in Algorithm Development and Data Science](#) to join the Environmental Research Institute (ERI) and work on environmental interactions and ecosystem effects of offshore renewable energy. Applications due 16 May 2025.

PNNL is seeking a [Post Doctorate Research Associate](#) to conduct coastal modeling research related to 1) marine energy resource modeling (wave, tide, ocean current and ocean thermal conversion) characterization using unstructured-grid models and 2) coastal biogeochemistry and plastic modeling. Applications are due 22 May 2025.

PNNL is also seeking an [Operations Specialist](#) to assist with the safe conduct of operations associated with the PNNL Sequim Campus. The campus supports a variety of ocean-based sectors including renewable energy development, coastal resilience and planning, and research and technology development. Applications are due 28 May 2025.

Delft University of Technology (TU Delft) is looking for a [Postdoc on Climate Change Wave Modelling for Marine Renewable Energies](#). The Postdoc will work on developing robust wave hindcasts/forecasts at high spatial resolutions, analyze long-term metocean conditions, and extreme events, with a particular focus in marine renewables. Submissions are due 4 June 2025.

TU Delft is also offering a [PhD Position on Impacts of Climate Change on Wave Energy Resources](#). This PhD will focus on long-term impacts on wave resources in the European Seas as part of a European Project, looking into numerical wave modelling and adaptation of floating wind and wave energy converters. Submissions are due 4 June 2025.

The Fundy Ocean Research Centre for Energy (FORCE) is seeking a [Director of Science & Env Programs](#) to help shape FORCE's scientific direction and lead the development, implementation, and technical oversight of its strategic science initiatives and marine environmental programs.

The University of Adelaide is seeking applicants for a PhD project, "[Living Near a Giant: Hydrodynamics of Subsea Cables Emerging from Offshore Wind Turbines](#)", which is co-sponsored by Aurora Offshore Engineering and the CSIRO Industry PhD Scholarship program.

AIS is recruiting a [Protected Species Observer - Sunrise Wind](#) to observe the monitoring and exclusion zones around offshore wind pile driving operations and implement protective measures when necessary. This position is expected to deploy in September 2025 for ~2-3 weeks of work.

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## Upcoming Events

### Upcoming Webinars

The Pacific Offshore Wind Consortium (POWC) is hosting a webinar, "[Offshore Grid Connection: Cable Laying and Monitoring](#)", on 12 May 2025 from 2:00-4:00pm PDT (9:00-11:00pm UTC). The webinar will describe the cabling process, including pre-installation environmental surveys and post-installation monitoring, at the PacWave wave energy testing facility. [Register here](#).

The New York State Energy Research and Development Authority (NYSERDA) is hosting a [Learning from the Experts](#) webinar, "Emissions Benefits of Offshore Wind", on 14 May 2025 from 12:00-1:00pm EDT (4:00-5:00pm UTC). The Carbon Trust will discuss the emissions benefits of offshore wind compared to traditional sources of electricity, methods of calculating carbon footprint, and the importance of data.

Renewables Grid Initiative (RGI) and Offshore Coalition for Energy and Nature (OCEaN) are hosting a webinar, "[Nature-Inclusive Design solution to support the Black-legged Kittiwake in](#)

[Belgium](#)”, on 20 May 2025 from 11:30am-12:45pm CEST (9:30-10:45am UTC). The webinar will explore the NID4BirdLIFE project, which seeks to advance the conceptualization, testing, and implementation of nature inclusive design solutions for birds at the Princess Elisabeth Energy Island, with a focus on the black-legged kittiwake. [Register here.](#)

TEAMER has rescheduled its webinar, “[How to Write a Good Test Plan](#)”, to 21 May 2025 from 11:00am-12:00pm PST (6:00-7:00pm UTC). During the webinar, PNNL mechanical engineer Dr. Rob Cavagnaro will discuss what makes up a good scientific test plan, including info specific to marine energy research and the TEAMER program. [Register here.](#)

The Marine Alliance for Science and Technology for Scotland (MASTS) is hosting an Open Forum Session, “[Anthropogenic Energy in the Marine Environment](#)”, on 4 June 2025 from 10:00-11:00am BST (9:00-10:00am UTC). The session will include presentations on energy pollution from offshore wind, energy pollution by ships, and improving tidal energy capture by a partial-width array using Flow Alteration by Introduced Roughness (FLAIR). [Register here.](#)

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## **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**

### **[Stakeholders’ views on siting in-stream tidal energy projects in urban and remote communities in the United States – Jenkins & Beaver 2025](#)**

Developers have proposed many in-stream tidal projects, but few commercial-scale devices have moved beyond the planning stages to construction and testing. To better understand social impediments to pilot project siting, this comparative case study was conducted in urban Puget Sound, Washington and remote Iguigig, Alaska. Stakeholder interviews were coded to identify themes about project development. Providing local renewable energy, advancing science and technology, and environmental awareness were perceived benefits, while negative environmental impacts, conflicts with other uses, and unintended consequences were perceived concerns of tidal energy.

### **[Potential environmental impacts of marine renewable energy due to the release of microplastic particles from synthetic mooring cables – Paredes & Vianello 2025](#)**

The large-scale exploitation of offshore renewable energy in floating platforms will increase the use of synthetic mooring cables to secure them to the sea-bottom, because of the need to employ low-cost and lightweight materials to ensure economic viability. The degradation of these cables will release microplastic particles to the ocean, causing environmental impacts that have so far received little attention. Here, we try to raise awareness to this potential problem, by explaining the fundamental differences between offshore renewable energy structures and traditional ones, such as oil platforms, in what

concerns their economics and layout at sea, listing the most relevant materials for mooring cables, and discussing potential problems and solutions.

### **[Assessing the availability and feasibility of renewable energy on the Great Barrier Reef-Australia – Virah-Sawmy et al. 2025](#)**

The Great Barrier Reef (GBR), the world's largest reef system and a UNESCO World Heritage site, is one of the most complex natural ecosystems on Earth. However, the GBR is at considerable risk from climate change and there is an urgent need to reduce reliance on fossil fuels and decarbonise the many activities taking place on the GBR. This study assesses the availability of renewable energy resources- solar, wind, wave, and tidal- on the GBR. A feasibility analysis is conducted for various renewable energy technologies based on a case study for an Aerosol Radiation Interaction Experimental Laboratory system, an apparatus being used to investigate marine cloud brightening on the GBR. Factors used in the feasibility assessment include maturity of technology, portability, adaptability across the GBR, and ecological impacts on marine life and birds.

## **Wind Energy**

### **[Seabirds in 3D: A Framework to Evaluate Collision Vulnerability with Future Offshore Wind Developments \[Final Report\] – Wallach et al. 2025](#)**

This study evaluates the potential tradeoffs between the collision vulnerability of 44 types of seabirds and offshore wind power generation along California's coast. Using a multi-objective optimization framework, seabird densities at heights where they are vulnerable to colliding with rotating turbine blades and anticipated energy production were assessed, with a goal of highlighting regions that minimize seabird exposure while ensuring viable power generation. The results indicate that there is a diversity and abundance of seabirds across the study area, but most are predicted to remain within 10 meters of the sea surface and are therefore expected to be most concentrated below rotor-swept heights.

### **[Spatio-temporal evolution and engineering implications of biofouling communities on floating wind turbines mooring lines – Dubois et al. 2025](#)**

Mooring lines of floating offshore wind turbine (FOWT) provide a substrate for diverse biofouling species, thus ultimately influencing both ecological dynamics and their own structural performance. This study presents an analysis of spatial and temporal variations in community composition, coverage and thickness from the surface to the seabed through a four-year monitoring of biofouling development on two mooring lines of the FLOATGEN prototype. Along these lines, three distinct biofouling zones were identified with hard-bodied species dominating the water surface, mobile organisms prevalent at intermediate depths and soft-bodied species in deeper regions.

### **[PrePARED Report No. 007: Challenges and Solutions for Offshore Wind Farm Cumulative Effects Assessments for Marine Mammals – Sinclair 2025](#)**

Environmental Impact Assessments (EIAs) in the UK must include a Cumulative Effects Assessment (CEA), however due to a lack of standardisation or guidance this process varies considerably between assessments (especially by country and by project). This raises the question of the utility and efficiency of the current CEA process. The following are some of the key areas in which CEAs can vary: (1) Zone of Influence (screening range); (2) Timeframe considered; (3) Assessment methodology; (4) Screening rules; (5) Data availability; (6) Assumptions made; (7) Magnitude definitions and significance scoring. We recommend that UK wide SNCB guidance is developed so that CEAs can be standardised, leading to enhanced realism, representative and comparable CEAs – therefore streamlining a key element of the consenting process.

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## **News & Press Releases**

### **Marine Energy**

#### **[Welsh Government backs tidal power with £2 million investment](#) – Inyanga Marine Energy Group**

The Welsh Government has completed a £2 million equity investment in tidal energy firm Inyanga Marine Energy Group, reinforcing Wales' commitment to developing renewable energy. The investment, to be announced by First Minister Eluned Morgan at the Marine Energy Wales Conference in Cardiff, will help test improved tidal turbines in real sea conditions at the Morlais tidal energy site off Ynys Mon (Anglesey). The investment will fund improvements to the turbines, enabling them to produce up to 60% more energy. The turbines will power most of the tidal energy projects planned for the Morlais site. The 35 square kilometre site has the potential to generate enough electricity to power over 180,000 homes once fully developed and is one of Europe's largest consented tidal energy projects.

#### **[Australian wave energy prototype wraps up demonstration campaign](#) – Offshore Energy**

'Kwilyilah', the University of Western Australia's (UWA) Moored MultiModal Multibody (M4) wave energy converter (WEC), has completed its deployment campaign in King George Sound, Albany. UWA Oceans Institute lifted the wave energy prototype out of the Albany Marina on May 1, 2025, after the six-month campaign. To remind, the deployment campaign started on November 8, 2024, putting into operation the 22-meter, 42-tonne M4 device designed to capture wave-generated energy while providing data on its efficiency and potential as a sustainable energy source. Following more than 130 days of operation and 300h of power generation, UWA Oceans Institute collected more than 3 TB of data that will be analyzed over the next few months.

#### **[UK Government Announces New Marine Energy Task Force in Keynote from Minister Michael Shanks](#) – Marine Energy Wales**

Recently at the Marine Energy Wales (MEW) Conference, a major announcement was made that could accelerate the future of the UK's marine renewable energy sector. In a keynote address delivered virtually, Michael Shanks MP, Parliamentary Under-Secretary of State at the Department for Energy Security and Net Zero, confirmed the formation of a new industry-led Marine Energy Task Force – a strategic move to unlock the UK's full potential in tidal and wave technologies. The new task force will bring together industry leaders to identify deployment barriers, map required investment, and deliver a strategic roadmap to advance marine energy nationwide. The task force's findings will be published by the Marine Energy Council and presented to government to inform future policy and support.

### **Cal Poly Pier Designated as Wave Energy Testing Site by Federally-Funded Program – Cal Poly**

In a new partnership established to enhance and support effective, innovative wave energy technologies, Cal Poly recently was selected as a federal agency's first open water research pier. Research access to the Cal Poly Pier, located about 11 miles south of the university campus, will be available through TEAMER, which is sponsored by the U.S. Department of Energy. The pier offers applicants developing wave energy innovations open-water access from its 3,000-foot-long marine research station in San Luis Obispo Bay in Avila Beach. The TEAMER program, first announced in March of 2019, is designed to set up technology developers and researchers with access to U.S.-based facilities and technical expertise to help encourage the success of wave energy commercialization and leverage a largely untapped resource, the power of the sea.

### **Carnegie signs Memorandum of Understanding with Chugachmiut: Exploring CETO Project Opportunities in Alaska – Carnegie Clean Energy**

Carnegie Clean Energy recently announced that it has signed a Memorandum of Understanding (MOU) with Chugachmiut to explore the development of CETO projects in the Chugach Region of Southcentral Alaska. Chugachmiut, a company dedicated to serving the seven Native tribes in the Chugach Region, is exploring the potential for wave energy to provide affordable and reliable electricity to tribes within their service region. In their search for solutions, the Chugachmiut team found the CETO wave energy technology. Carnegie is well placed to work alongside local experts at Chugachmiut to investigate opportunities for future CETO wave energy projects. This MOU formalises ongoing discussions and demonstrates the parties' commitment to active collaboration towards the deployment of wave energy in the region.

## **Wind Energy**

### **Record-breaking monopile installation sets a solid foundation for ScottishPower's biggest-ever offshore windfarm – ScottishPower Renewables**

The offshore construction programme for ScottishPower's biggest-ever renewables project is officially underway with the installation of the first foundation for the green



energy company's £4 billion East Anglia THREE offshore windfarm. Standing at 83.89m tall, 10.6m in diameter and weighing 1,800 tonnes, the monopile also represents a new offshore wind industry record – becoming the largest installed to date from a jack-up vessel in Europe. Charlie Jordan, ScottishPower Renewables CEO, said: “East Anglia THREE will be the biggest-ever windfarm across the whole of the Iberdrola group and the second largest in the world when it comes into operation.” The installation of all 95 turbines is expected to be completed by early 2026.

### **Testing, tracking, and trust: BTO's independent review of Spoor's offshore monitoring solution – Spoor**

To evaluate how well Spoor's technology delivers on that need, the British Trust for Ornithology (BTO) conducted an independent assessment of its AI-powered bird monitoring system. The trial took place at the European Offshore Wind Deployment Centre (EOWDC) in Aberdeen Bay, one of the most advanced offshore wind testing facilities in Europe. Commissioned by Vattenfall and Spoor, this multi-phase study tested both mono- and stereo-camera AI setups over an 18-month period. Importantly, the system was tested not only offshore—but also in controlled onshore conditions using drone-based calibration, helping to demonstrate its flexibility for both marine and land-based wind projects.

### **RWE installs first foundation at Thor offshore wind farm – RWE**

RWE has taken an important step in the construction of the 1.1 gigawatt (GW) Thor offshore wind farm in the Danish North Sea: the first of 72 monopile foundations has been successfully installed. The monopiles were shipped from the heavy-lift terminal in Eemshaven, the Netherlands to the Thor construction site in the Danish North Sea, located approximately 22 kilometres off the west coast of Jutland, and installed by the vessel “Les Alizés”. The turbine installation works are scheduled to be carried out from the Port of Esbjerg in Denmark, starting in 2026. When fully operational in 2027, Thor offshore wind farm will be capable of producing enough green electricity to supply the equivalent of more than one million Danish households.

### **First building blocks of Belgian energy island successfully placed in the North Sea – Elia Group**

Construction has begun in the Belgian North Sea on the Princess Elisabeth Island, an artificial energy island located 45 km off the coast. After a successful sea transport operation, the first two of a total of 23 caissons have been submerged at their final location. Caissons are concrete building blocks that form the outline of the future island. In a later phase, the interior will be filled with sand to build high-voltage infrastructure that will connect new offshore wind farms. The work is being carried out on behalf of grid operator Elia Transmission Belgium (Elia) by TM Edison, a consortium of Belgian marine construction companies DEME and Jan De Nul. In the coming decades, the energy island will become an essential part of Belgium's electricity supply.

## **Ørsted to discontinue the Hornsea 4 offshore wind project in its current form – Ørsted**

Ørsted has recently decided to discontinue the Hornsea 4 project in the UK in its current form. Since the Contract for Difference (CfD) award in allocation round 6 (AR6) in September 2024, the 2,400 MW Hornsea 4 project has seen several adverse developments relating to continued increase of supply chain costs, higher interest rates, and an increase in the risk to construct and operate Hornsea 4 on the planned timeline for a project of this scale. In combination, these developments have increased the execution risk and deteriorated the value creation of the project. Therefore, Ørsted has taken the decision to stop further spend on the project at this time and terminate the project's supply chain contracts, meaning that Ørsted will not deliver Hornsea 4 under the CfD awarded in AR6.