



TETHYS BLAST

January 11, 2019

The bi-weekly Tethys Blast will update you with new information on Tethys, news articles of international interest, and opportunities in wind and marine renewable energy. We hope you find this a valuable tool to keep you connected to colleagues, new research, opportunities, and industry milestones.

Abstracts Due

The Marine Energy Technology Symposium (METS) will be held in Washington DC on 1-3 April 2019. The abstract deadline has been extended to 18 January, submitted by email to arielle.cardinal@nrel.gov.

New Documents on Tethys

New documents are regularly added to Tethys, hand-selected for their relevance to the environmental effects of wind and marine renewable energy. Short excerpts from new or popular documents are listed below, accessible by the accompanying Tethys links:

[Providing ecological context to anthropogenic subsea noise: Assessing listening space reductions of marine mammals from tidal energy devices](#) – Pine et al. 2019

The deployment of tidal energy arrays is gaining momentum to provide marine renewable energy (MRE) to the global market. However, there are concerns over the potential impacts underwater noise emissions from operational devices may have on marine fauna. Auditory masking (the interference of important biological signals by anthropogenic noise) is a highly pervasive impact to marine fauna.

[Nocturnal flight activity of northern gannets *Morus bassanus* and implications for modelling collision risk at offshore wind farms](#) – Furness et al. 2018

Assessing the potential impacts of proposed offshore wind farm developments on seabird populations requires estimation of nocturnal flight activity of seabirds for input into collision risk models. One of the seabirds considered most at risk from collision with offshore wind turbines is the northern gannet *Morus bassanus*. The recommended correction for gannet nocturnal flight activity is currently a highly precautionary value.

[Potential local environmental impacts of salinity gradient energy: A review](#) – Seyfried et al. 2019

Marine renewable energy development aims to harness the vast resources of the coastal environment to meet growing energy demands. Among the variety of coastal energy sources, salinity gradient energy (SGE) technology captures the energy released from the controlled mixing of waters of different salinities found naturally in estuarine systems or in other combinations of anthropogenic sources of brine and fresh waters.

[Wind Energy and Wildlife: 20 Years of Translational Ecology in Action](#) – Allison and Arnold 2018

Frontiers' Special Issue on translational ecology (TE) focused on the urgent need for "effective translation between good science and informed practice". As scientists, practitioners, and conveners dedicated to facilitating wind energy development while protecting wildlife, we read that issue with the exciting ring of recognition.

[Is Marine Spatial Planning Enough to Overcome Biological Data Deficiencies?](#) – Ryan et al. 2018

The United States only accounts for 0.2% of the global offshore wind installed capacity despite a potential technical resource four orders of magnitude greater. A cumbersome permitting process is one of the challenges in implementing new projects. Part of this process requires biological data in order to inform assessments of environmental impacts; yet these data may be lacking for particular taxa at the required scale.

News and Current Events

Marine Renewable Energy

[U.S. Department of Energy Awards \\$25 Million for Next-Generation Marine Energy Research Projects](#) – Energy.gov

The U.S. Department of Energy (DOE) selected \$25 million in research projects for next-generation marine energy devices. Funded by DOE's Office of Energy Efficiency and Renewable Energy Water Power Technologies Office, these 12 innovative projects will reduce capital costs and accelerate the innovation cycle by testing new concepts. Marine energy includes ocean wave power, tidal, and river/ocean current devices that convert movement of water into electricity.

[Inauguration of the Lir National Ocean Test Facility](#) – Ireland Ocean Energy Expertise

On January 1, the Lir National Ocean Test Facility (Lir-NOTF) will progress to the operational phase of its life cycle with the completion of three years of commissioning works. The Lir-NOTF is a part of the Marine and Renewable Energy Ireland (MaREI) Centre and is located in University College Cork Beaufort Building in Ringaskiddy.

[QOS Energy data intelligence platform deployed at 1MW Ushant project](#) – Re News

French renewables developer Sabella is partnering with QOS Energy to improve the performance monitoring of the 1MW Ushant tidal project off the coast of Brittany. The D10 turbine, which is immersed in 55 metres under the sea, is using QOS Energy's data intelligence platform to identify, assess and anticipate potential failures.

[Two Scots firms secure £7.7 million to develop wave energy machines of the future](#) – Wave Energy Scotland

Two new Scottish wave energy devices will take to the sea in 2020 following the award of £7.7 million from Wave Energy Scotland. Both winning firms – Edinburgh-based Mocean Energy and AWS Ocean Energy from Inverness – will use the funds to build half-scale wave energy machines and test them in real ocean conditions at the European Marine Energy Centre (EMEC) in Orkney.

[MeyGen Operational Update](#) – Simec Atlantis Energy

SIMEC Atlantis Energy is pleased to announce that its offshore construction team has successfully completed the redeployment of two 1.5MW turbines at the MeyGen tidal energy project in Scotland. The turbines were retrieved for modification work following initial operations, and now that this has been successfully completed all four turbines are reconnected to the grid.

Wind Energy

[Saudi Arabia awards its first wind energy plant](#) – Reve

Saudi Arabia's energy ministry has awarded the \$500m Dumat Al Jandal wind power project to a consortium led by France's EDF Energies Nouvelles and Abu Dhabi's Masdar, it announced on Thursday. The 400MW project will be Saudi Arabia's first utility-scale wind farm. A consortium led by France's EDF Energies Nouvelles and Abu Dhabi's Masdar won the wind power project.

[Vestas reaches 100-gigawatt wind turbine installation landmark](#) – CNBC

Danish wind energy business Vestas says it has become the first company to install 100 gigawatts (GW) of wind turbines. In an announcement Wednesday, the firm said it reached the milestone in late 2018, when it installed a V110-2.0 MW turbine at MidAmerican Energy's Wind XI project in Iowa. The Wind XI facility is set to have a capacity of 2,000 MW and will be made up of "multiple sites in Iowa."

[Martha's Vineyard Wind Farm Lease Auction Blew Away Records With \\$405 Million in Bids](#) – Fortune

Three companies bid a record-shattering \$405.1 million to nab U.S. rights to build offshore wind farms near Massachusetts on Friday, a testament to the surging appeal of renewable power and investors' confidence in state demand for it. Equinor Wind US LLC, Mayflower Wind Energy LLC and Vineyard Wind LLC each pledged \$135 million to secure individual leases from the U.S. government, drawn by state pledges to buy offshore wind power.

[Turkish Wind energy capacity to reach 8 GW in 2019](#) – Hurriyet Daily News

Turkish wind energy installed capacity is expected to reach 8 gigawatts with an addition of 600 megawatts (MW) in 2019, Turkish Wind Energy Association (TÜREB) head said on Jan. 4. TÜREB President Mustafa Serdar Ataseven said Turkey's wind energy installed capacity was boosted last year despite the financial difficulties that beset the country, while adding that there is potential to increase this capacity further this year.

[Challenges ahead for 'world's largest' wind farm](#) – Wind Power Monthly

Curtailment could affect the profitability of State Power Investment Corporation's (Spic's) planned 6GW wind farm in Inner Mongolia, an analyst has told Windpower Monthly. Spic received planning approval for the Ulanqab Wind Power Base would be spread across a 3,800km² area in the north of China, close to the border with Mongolia, at the end of 2018.



[ORJIP Ocean Energy](#) is a UK-wide collaborative programme of environmental research with the aim of reducing consenting risks for wave, tidal stream and tidal range projects. Partnering with Annex IV, ORJIP provides content input to Tethys Blasts and wishes to make you aware of the following opportunities:

- The FORSEA (Funding Ocean Energy through Strategic European Action) programme has launched its [5th call for proposals](#). Deadline to apply is 25 January.
- The Marine Energy Alliance (MEA) project has launched its [first call for applications](#) from marine energy technology companies, which will receive access to leading expertise in marine energy development via project partners. Deadline to apply is 4 February.
- The ProtoAtlantic project, which aims to develop and validate a model for the prototyping and exploitation of innovative ideas in the maritime sector, has launched a [call for entrepreneurs to apply for a fast-tracked acceleration programme](#). Deadline to apply is 4 February.

- The European Maritime and Fisheries Fund (EMFF) have launched a [Blue Economy call for project proposals](#) under three topics: (1) Blue Labs: innovative solutions for maritime challenges, (2) Blue Careers in Europe, and (3) Grants for the Blue Economy: investing in innovation. Deadline to apply is 31 January.
- Industry bodies Subsea UK and National Subsea Research Initiative (NSRI) in partnership with Scottish Enterprise have launched a [second call for R&D partnerships between Scotland and Japan](#) to drive forward innovative subsea technologies. Initial expressions of interest are open until 15 February 2019.