

30 December 2022

The [Tethys Engineering](#) Team here at the Pacific Northwest National Laboratory wishes you a very happy holiday season and a wonderful New Year! This special edition of the *Tethys Engineering Blast* features a few announcements, opportunities, and upcoming events, as well as a brief look at some 2022 *Tethys Engineering* statistics! Thank you for contributing this year!

[Announcements](#)

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[2022 Tethys Eng. Stats](#)

Announcements

PRIMRE Highlight

The [Portal and Repository for Information on Marine Renewable Energy \(PRIMRE\)](#) is a free, online system that provides access to a variety of U.S. marine energy resources and information. *Tethys* and *Tethys Engineering* are two of the seven [Knowledge Hubs](#) within the PRIMRE universe. Watch the [PRIMRE Overview video](#) and [Contributing to PRIMRE video](#) to learn more.

SULI & CCI Applications

The U.S. Department of Energy (DOE) Office of Science is now accepting applications for the [Science Undergraduate Laboratory Internships \(SULI\)](#) program and the [Community College Internships \(CCI\)](#) program. Interns will work directly with national laboratory scientists and engineers that support the DOE mission. The application deadline is 10 January 2023.

Earthshot Prize Nominations

The European Marine Energy Centre (EMEC) is continuing its role as an Official Nominator for [The Earthshot Prize](#), which is seeking innovations that will help repair and regenerate the planet. EMEC has launched an [open call inviting submissions](#) for consideration until 17 January 2023.

Call for Abstracts

The [Call for Abstracts](#) for the [Marine Energy Wales Conference 2023](#) is now open through 16 January 2023. The conference will take place 21-22 March 2023 in Swansea, UK.

The [Call for Abstracts](#) for the [15th European Wave and Tidal Energy Conference Series \(EWTEC 2023\)](#) is now open through 28 January 2023. Full papers will be due 27 May 2023. EWTEC will take place on 3-7 September 2023 in Bilbao, Spain.

Funding/Testing Opportunities

The U.S. DOE has opened applications for the [Small Business Innovation Research \(SBIR\) and Small Business Technology Transfer \(STTR\) Program](#), which offers grants to small businesses to support technological innovation. Letters of intent are due 3 January and applications are due 21 February 2023.

The European Commission has launched two new [Calls for Proposals](#) under the European Maritime, Fisheries and Aquaculture Fund aimed at supporting careers and regional projects for a sustainable blue economy in European Union sea basins. Proposals are due 31 January 2023.

The European Commission has also launched the third call for large-scale projects under the [European Union Innovation Fund](#). The call is open for projects located in European Union Member States, Iceland, and Norway until 16 March 2023.

The Horizon Europe Framework Programme recently launched a funding opportunity entitled, “[Demonstration of sustainable tidal energy farms](#)”, to de-risk tidal technology development and increase knowledge of potential environmental impacts. Applications are due 30 March 2023.

Student/Employment Opportunities

National Renewable Energy Laboratory is inviting applications for a [Marine Energy Numerical Model and Analysis Engineer](#) to develop, verify, and validate predictive numerical simulation tools that can be used to design and optimize marine energy systems.

Inyanga Marine Projects is seeking a [Senior Project Engineer](#) to support ongoing design and engineering projects focused on offshore renewable energy.

Floating Power Plant is offering an [opportunity for candidates holding a Ph.D.](#) to join its business developing floating wind, wave, and hydrogen platforms for island communities. Applications are due 31 December 2022.

EMEC is seeking a [Performance Test Engineer](#) to deliver technical services to research and development projects and a [Head of Projects](#) to oversee its project portfolio and management office. Applications are due 3 and 16 January 2023, respectively.

The Center for Ocean Engineering at the University of New Hampshire is inviting applications for a tenure-track position at the [Assistant, Associate, or Full Professor](#) rank who can contribute to ocean renewable energy research and other focus areas. Applications are 22 January 2023.

Upcoming Events

Upcoming Webinar

OES-Environmental is hosting a webinar from 3:30-5:00pm UTC on 19 January 2023 to share tools for designing and siting MRE projects with environmental effects in mind. This webinar will highlight OES-Environmental's [Management Measures Tool](#), AZTI's [Wave Energy Converter - Environmental Risk Assessment \(WEC-ERA\) Tool](#), and the [Marine Energy Environmental Toolkit for Permitting and Licensing](#) developed by Kearns & West. Register [here](#).

Upcoming Conferences

The Marine Alliance For Science and Technology For Scotland is hosting the 5th Symposium of the Scottish Marine Energy Research Programme (ScotMER) from 31 January to 2 February 2023 online. Register for free [here](#).

The Global Underwater Hub is hosting the [Subsea Expo](#) from 21 - 23 February 2023 in Aberdeen, Scotland. Register for the conference and exhibition [here](#).

2022 *Tethys Engineering* Stats

Over the past year, the *Tethys Engineering* Team has added over 1,200 documents to the [Tethys Engineering Knowledge Base](#) and the site has been visited by over 40,000 users! The Team has also added over 200 new marine energy photos to the [Tethys Engineering Photo Library](#)!

Top 10 Viewed Documents

1. [Wave energy generation and storage costs in Australia: an analysis for Wave Swell Energy Limited](#) – Osman et al. 2022
2. [Composite Springs for Mooring Tensioners: A Systematic Review of Material Selection, Fatigue Performance, Manufacturing, and Applications](#) – Cai et al. 2022
3. [Wave energy cost projections: A report for Wave Swell Energy Limited](#) – Hayward 2021
4. [Wave and Tidal Energy](#) – Greaves & Iglesias 2018
5. [Ocean Energy in Islands and Remote Coastal Areas: Opportunities and Challenges](#) – Ocean Energy Systems 2020
6. [Tidal Stream Power Development in San Bernardino Strait, Philippines](#) – Battaglia 2018
7. [Energy production at the Dead Sea by pressure-retarded osmosis: Challenge or chimera?](#) – Loeb 1998

8. [International Levelised Cost of Energy for Ocean Energy Technologies – Ocean Energy Systems 2015](#)
9. [Lessons learnt from the design, installation and initial operations phases of the 6MW 4-turbine tidal array in Scotland’s Pentland Firth – Black & Veatch 2020](#)
10. [A Review of Point Absorber Wave Energy Converters – Guo et al. 2022](#)

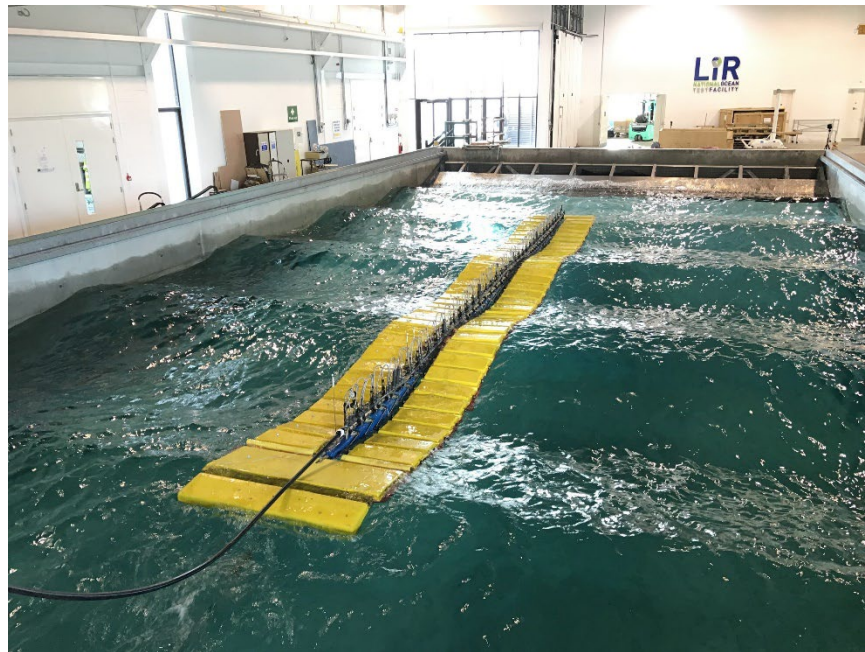
Top 10 Visiting Countries

1. India (9,539 users)
2. United States (7,525 users)
3. United Kingdom (2,665 users)
4. China (2,545 users)
5. Philippines (893 users)
6. Nigeria (851 users)
7. Canada (754 users)
8. Germany (733 users)
9. Italy (679 users)
10. Pakistan (676 users)

Top 10 Visiting Cities

1. Hyderabad, India (368 users)
2. Bengaluru, India (133 users)
3. Cheyenne, WY, U.S. (91 users)
4. Lagos, Nigeria (83 users)
5. London, UK (75 users)
6. Kochi, India (72 users)
7. Coimbatore, India (61 users)
8. Nagpur, India (60 users)
9. Pune, India (51 users)
10. Delhi, India (295 users)

Top 3 Viewed Photos



Sea Wave Energy Ltd (SWEL) – Waveline Magnet 10 Tank Testing in Ireland



OceanEnergy – OE35 Wave Energy Converter Under Tow



Bombora – Floating Integrated mWave Integrated Wave and Wind Platform

The Tethys Engineering Team

Tethys Engineering is made possible by an amazing team at the Pacific Northwest National Laboratory. Thank you to Amy Woodbury, Andrea Copping, Andrew Philpott, Anushka Narayanan, Curtis Anderson, Debbie Rose, Dorian Overhus, Erik Ertsgaard, Fadia Ticona, Jamie Oman, Jill Pospical, Jonathan Whiting, Lenaïg Hemery, Levy Tugade, Lysel Garavelli, Megan Anderson, Mikaela Freeman, Yekaterina Pomiak, and Zara Miles for all of your time and effort! And a special thank you to Hayley Farr for compiling the *Tethys Engineering Blasts*!