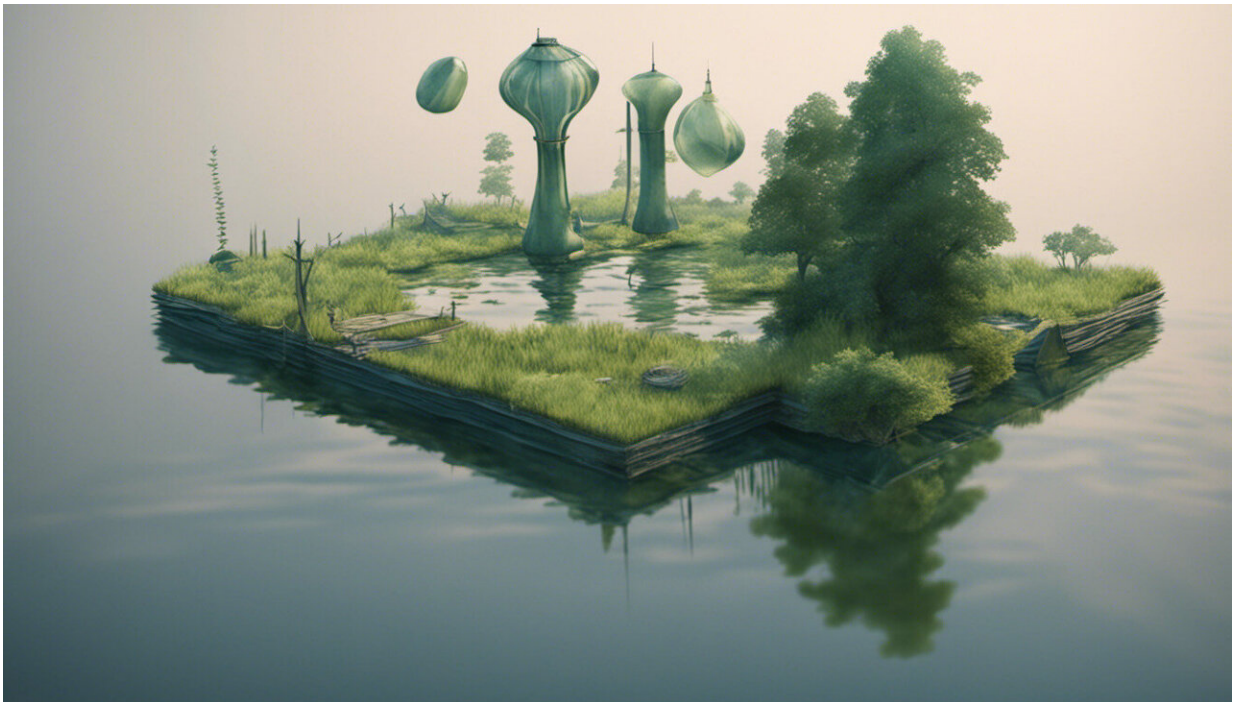


Rising tide: Floating device one step closer to generating green power

June 18 2018



Credit: AI-generated image ([disclaimer](#))

An ocean energy technology project that will harness tidal power has successfully produced electricity during towing tests.

Efforts to increase power generation by renewables continue unabated, thanks to the need to meet rising [global energy demand](#) and mitigate

climate change. According to a report by the International Energy Agency, the share of renewables in power generation will reach 30 percent in 2022, up from 24 percent in 2016. Although tidal and wave [energy](#) currently makes only a small contribution to electricity production, these sources are increasingly deployed in order to diversify the world's renewable energy supply.

A Spanish [tidal energy](#) developer, Magallanes Renovables, has been testing its platform 'ATIR' since 2017 as part of the EU-funded OCEAN_2G project. The company has been validating the second-generation (2G) 2 MW device in the controlled marine environment of the Spanish bay of Vigo. It recently entered into an agreement with the European Marine Energy Centre Ltd (EMEC) for the next phase of its energy prototype demonstration.

Grid-connected tests

Quoted in a press release by EMEC, Alejandro Marques de Magallanes, CEO of Magallanes Renovables, said: "We've been busy testing our device here in Vigo and we are pleased to have already successfully generated electric power during our towing tests. We will continue to optimise the system in order to extract more energy, to ensure the device is performing to its optimum capability."

The same press release states that the next steps will see the full-scale device being towed to Scotland's Orkney. The operational performance of the system will then be demonstrated at EMEC's grid-connected tidal [test](#) site at the Fall of Warness. EMEC Managing Director Neil Kermod added in the [press release](#): "We look forward to welcoming Magallanes Renovables back to Orkney after the success of previous tests at EMEC in 2014. This project is yet another positive step change for the tidal energy market and 2018 is shaping up to be another busy year at our test centre."

As indicated on CORDIS, Magallanes Renovables "has designed, built and tested the 1:10 scale platform in open water conditions, and at this stage it's finalising the construction of a full size prototype." The ongoing OCEAN_2G (Second Generation technologies in ocean Energy) project aims to test, validate and pre-certify an innovative 2 MW tidal energy platform solution, progressing it towards commercialisation.

The Magallanes Renovables website states that the project uses floating technology with no type of barrage or dam, without requiring constructions or pillars on the sea bottom. Hence, it can be installed in any area in the world. It notes that the system has a low maintenance cost "since it makes it possible to access the platform for checking, repairs or any other operation, by boat or ship."

More information: OCEAN 2G project:
cordis.europa.eu/project/rcn/207910_en.html

Provided by CORDIS

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