Press Release

Nantes, 11 December 2020

EOLINK's latest-generation floating wind turbine to be tested on Centrale Nantes' SEM-REV offshore test site.

On 3 December, the company EOLINK and Centrale Nantes formally agreed to install a 5MW floating wind turbine on the SEM-REV test site, off the coast from Le Croisic. Since hosting FLOATGEN, the first floating wind turbine in France on site from 2018, Centrale Nantes is pushing ahead and is set to welcome EOLINK shortly with its innovative and promising wind turbine prototype.

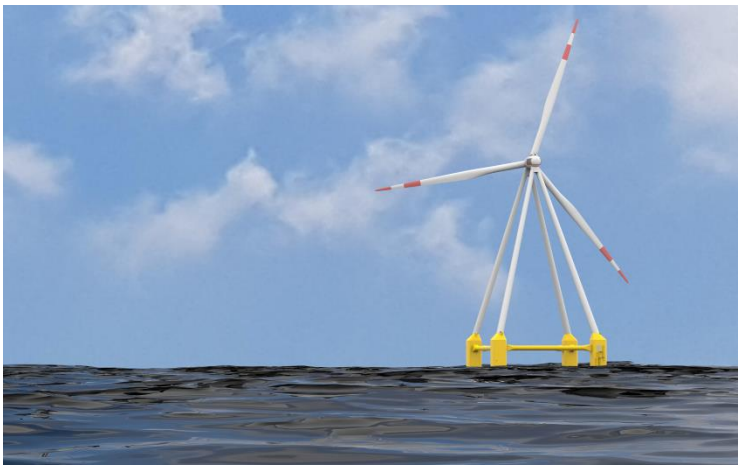

photo: Eolink

A new floating wind turbine concept

Standing 150 m tall and capable of providing power to 3,500 homes, EOLINK's device reaps the benefits of floating wind to reshape wind turbine architecture. The conventional single mast gives way to a **lighter, more rigid pyramidal structure**, equipped with **large-diameter turbines** to boost competitiveness. The result:

- A structure that is **30% lighter** thanks to better load distribution,
- **10% more energy** as a result of blades and masts being further apart,
- **On-site deployment facilitated** by unprecedented towing speed and a fast connection system,
- A **simple and automatable production** process similar to the modular construction of merchant ships,
- A reduction in the cost of electricity production surpassing 20%.

In order to minimize development time and the associated risks, EOLINK called upon Centrale Nantes whose SEM-REV test site is already connected to the national power grid by an underwater power cable, which is unique on the market today. An upgrade of the electrical network is also planned next year to accommodate this new turbine. The harsh wind and wave conditions at the SEM-REV site are ideal to fully test EOLINK's floating wind turbine.

"Clean and economical energy production is within reach. Step by step, EOLINK is developing a simple and straightforward solution" - Marc Guyot, CEO of EOLINK.

The different project phases

The first phase of the project involves testing the anchor buoy around which the wind turbine turns. The anchors and the buoy will be installed in 2021 in order to perform mechanical and electrical tests under real conditions. At the same time, the wind turbine float will be manufactured in a shipyard. In 2022, the wind turbine will be towed out to the site for a power testing phase. With incremental increases in production, the turbine will reach nominal power of 5 MW, producing 14 GWh annually by 2023. The wind turbine will have to produce electricity in all conditions for at least 3 years so that structural stress measurements can be taken.

The Eolink project opens a new and encouraging chapter not only for floating wind energy, but also for the entire renewable energy sector.

Floating wind turbines are expected to supply a significant share of electricity in 2040. The potential of our coastline is immense: just 1% of the surface area would allow for the production of 25% of the electricity used in France today.

"With its offshore test site and advanced research on Marine Renewable Energies, Centrale Nantes confirms its position as an academic leader in the development of a new industrial sector in France", Jean-Baptiste Avrillier, Director of Centrale Nantes.

Electricity production in excess of 14 GWh/year will recoup the manufacturing investment, while monitoring structural stress will pave the way to confirming plans to produce 12, 15 and 20 MW turbines for French commercial wind farms in 2028.

Learn more:

http://eolink.fr/

https://sem-rev.ec-nantes.fr/

About Centrale Nantes

Founded in 1919, Centrale Nantes is a French engineering school and member of the Ecoles Centrale Group. Its undergraduate, Master and PhD programmes are based on the latest scientific and technological developments and the best management practices. At Centrale Nantes, research and training are organised into three key areas for growth and innovation: manufacturing, energy transition and healthcare. With research platforms ranging from digital simulation to prototyping using full-scale models and an incubator with 20 years of experience in supporting start-up projects, the school has two major tools for innovation and creation, working hand in hand with industry. Centrale Nantes promotes its teaching and research capabilities at international level through around 100 partnerships with prestigious universities and schools worldwide.

For more information: www.ec-nantes.fr

Media Library: https://phototheque.ec-nantes.fr/ / @CentraleNantes

About EOLINK

EOLINK is a Breton company entirely focused on the development of its patented concept of floating wind turbines.

- *2016, the first tank tests are conducted at IFREMER, with support from France Energies Marines and the French National Research Agency (ANR). The model tested is a 12 MW device built to a scale of 1:50.*
- *2018 and 2019, a 22-metre prototype is tested at sea with support from the Brittany Region, once more in conjunction with IFREMER. The characteristics of the device accurately represent a giant 12 MW wind turbine on a 1:10 scale.*
- *2020, the team of now 15 engineers designs the 5 MW demonstrator, with support from the Agency for Ecological Transition (ADEME) and the Investments for the Future Programme. This new prototype will represent 12 MW on a 3:4 scale.*

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