



Presentation of the construction site for the first offshore wind turbine in France

Press kit



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First offshore wind turbine in France

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"FLOATGEN is proof that in the field of marine renewable energies, the Pays de la Loire region is at the forefront of innovation. The region provides practical support to boost this momentum through both the positioning of offshore windfarms and the development of floating wind power. From the SEM-REV project to the Vendée Globe to the Port of Saint-Nazaire, the sea, for us, is an ocean of opportunities that we must seize to build the future."



Bruno Retailleau,
President of the
Regional Council of
Pays de la Loire



Arnaud Poitou,
Director Centrale Nantes

"Floatgen is a milestone in the school's history. SEM-REV, our offshore test site, a visionary project back in 2007, is today proving itself as a vital tool in the development of a new industrial sector in France."

"Floatgen is an essential step for the company culminating in the offshore launch of the first unit of our technology, but it's also a key moment for France and Europe which have the opportunity to become world leaders in this emerging market."



Paul de la Guérivière,
CEO Ideol



Benoît Lange, Sales Director
Bouygues Travaux Publics

"Bouygues Travaux Publics' investment in the FLOATGEN project signals our desire to leverage, within the framework of Marine Renewable Energies, our extensive experience in port and maritime infrastructure projects, in France and abroad. The floating concrete platforms, produced on an industrial scale, represent a competitive solution for offshore wind turbines."

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Press Release

Ideol, Centrale Nantes and Bouygues Travaux Publics present the construction site for the first offshore wind turbine in France

To date, there are no - fixed or floating - offshore wind turbines in France. The project led by Ideol, Centrale Nantes and Bouygues Travaux Publics, known as FLOATGEN, the name given to a 2MW floating wind turbine, will constitute the first offshore wind turbine in France. Construction of the floating foundation is now in full swing at the port of Saint-Nazaire and will lead to the installation of the wind turbine at the SEM-REV offshore test site, off the coast from Le Croisic, before the end of 2017.

Innovation at all levels

Be it the very concept of the square ring-shaped floating foundation, or the offshore test site, or the type of concrete used in the construction, or even the material for the mooring lines; innovation is present throughout the project.

FLOATGEN's concrete foundation was developed by French start-up Ideol: a ring-shaped floating platform, open in its centre, providing optimum stability at a lower cost. FLOATGEN will be the first unit using this technology to be installed offshore, before the installation of a second unit in Japanese waters in summer 2018.

The use of concrete as the main construction material for Ideol's floating foundation is remarkable in itself and sets it apart from rival floating solutions, mainly made from steel. Bouygues Travaux Publics, the Bouygues Construction subsidiary in charge of building the foundation, has specifically developed a lightweight self-placing concrete to build the foundation as well as innovative construction methods on three interconnected barges.

The Centrale Nantes SEM-REV offshore test site on which the wind turbine will be installed is a research tool of international calibre. It allows demonstrators or prototypes for the recovery of offshore energy (wind and waves) to be developed under real and full-scale conditions. Researchers and industry thus have the necessary means at their disposal for the testing of prototypes prior to industrial use.

Finally, the innovative anchoring system consisting of three doubled mooring lines does not use steel, but rather a synthetic fibre – nylon – which is extremely resistant and not prone to corrosion.

Boosting activity in the region

At its peak, the project will directly employ 70 people in Saint-Nazaire for the construction of the floating foundation: the type of concrete used for Ideol's foundation means that construction can take place very close to the installation sites. The construction techniques developed and implemented by Bouygues Travaux Publics make it possible to blend into the local economic landscape and to easily adapt to local port constraints.

Le Béon Manufacturing heads up the consortium selected to supply the nylon mooring lines. A significant portion of the forged components were produced in their factory in Morbihan, Brittany.



FLOATGEN's partners have opted to source the majority of their parts or logistical support from suppliers based in the Saint-Nazaire area. The same principle has been applied to project procurement, be it communication or even insurance.

FLOATGEN, the starting-point for mass rollout

The FLOATGEN project, first offshore wind turbine and first demonstrator of Ideol's floating foundation technology, is already providing and will continue to provide the consortium's partners with unique feedback, particularly with regard to construction methods, installation and use of the floating system. It will also serve as a showcase for export sales.

On 13 July 2016, the French government selected a consortium, headed up by Quadran, and bringing together Ideol's floating foundation and the expertise of Bouygues Travaux Publics, for the first offshore windfarm project in the Mediterranean (the EOLMED project - 4 units off the coast of Gruissan and one of the best wind resources in Europe).

Many countries have entered the offshore wind turbine market, chief among them Japan, currently in the midst of redefining its energy mix. The Japanese Environment Ministry foresees production of between 2.7 GW and 5.6 GW from floating offshore wind farms by 2030. Mid-2018, Japan will install a floating wind turbine demonstrator using Ideol's technology.