



Floating structure for offshore wind farms

Carnot IFPEN Ressources Énergétiques and its partner, SBM offshore, specialist in offshore energy markets, is partnering the industrial development of offshore wind energy with a breakthrough floating support solution. Once a demonstration phase has been completed, preparation for the industrial phase will begin, with one overriding challenge: cutting costs, which is key to the competitiveness of the floating wind farm sector.

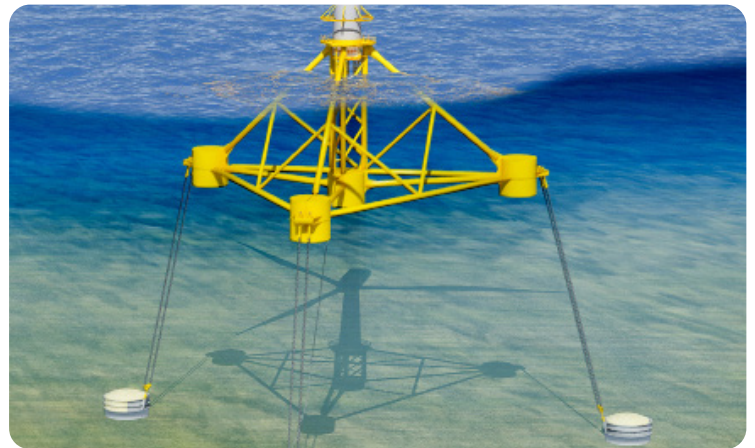
Carnot IFPEN Ressources Énergétiques Institute

Scientific / technological breakthrough

This floating structure for offshore wind farms has a number of advantages: compact and modular, it is highly reliable thanks to the use of tried and tested components. Investment costs are reduced due to its exceptional stability at the nacelle, which reduces stress and mechanical fatigue in all components.

Lastly, it can be installed in shallow water and does not require special construction and launching infrastructure.

The advanced simulation tools developed by Carnot IFPEN Ressources Énergétiques have been used to come up with this solution, which has been selected by EDF Energies Nouvelles for the Provence Grand Large pilot wind farm project backed by the French Agency for the Environment and Energy Management (ADEME). The objective is to demonstrate the technical and economic relevance of this solution.



Competitive advantage for the economic stakeholders

The floating structure developed allows SBM Offshore to gain a foothold in the emerging floating wind farm sector and to maintain its competitiveness by diversifying into new market segments. The next stage involves ramping up in preparation for the industrial production phase of this technology to accelerate cost reduction. This is essential to be able to reply to the 2021-2022 calls for tender set out in the French Government's Multiannual Energy Programme (PPE).

Partnership

- **SBM OFFSHORE**, designs, manufactures and sells marine systems and equipment for the oil and gas industry.

