



GRS

OFFSHORE
RENEWABLES

BW Ideol's Fos3F Project Secures EUR 126 Million to Pioneer Serial Production of Floating Wind Foundations

BW Ideol's Fos3F project, a proposed dedicated factory for the serial production of concrete floating wind foundations in Fos-sur-Mer on France's Mediterranean coast, secured a combined EUR 126 million in public funding in early 2026. The final grant agreement for up to EUR 74 million from the EU Innovation Fund was signed on 19 March 2026, following the project's selection by the European Commission in November 2025. A further EUR 52 million was awarded by the French government through its C3IV tax credit scheme, which supports leading French companies in the green industry, at the end of 2025.

If built, the Fos3F facility would be the first factory of its kind anywhere in the world, operating on the principles of industrial serial production rather than one-off construction. The concept draws on civil engineering techniques such as gantry slip-forming, skidding systems and automated prefabrication, adapted for the manufacture of concrete substructures based on BW Ideol's patented Damping Pool design. This foundation concept has already been demonstrated at sea on two continents and is engineered to support current 15 MW class

turbines as well as next-generation 20 MW units.

With a planned output of up to 30 floating foundations per year, the factory is intended to supply a significant portion of future Mediterranean floating wind projects. The broader addressable market across France, Spain, Italy and Greece has been estimated at around 8 GW by 2035. Beyond energy output, the project is expected to create approximately 1,300 direct jobs and provide an economic boost to the Fos-sur-Mer region. By using locally sourced concrete rather than steel manufactured abroad, the approach is also projected to reduce carbon emissions in the construction phase by up to 45 percent compared with steel alternatives shipped from Asia.

The project also received the Strategic Technology for Europe Platform seal, an EU designation for projects of particular strategic importance. BW Ideol's CEO, Paul de la Guérivière, described the combined funding as a major vote of confidence and said the support puts the company in a strong position to deliver its first concrete floating foundations by 2030.

Heerema Marine Contractors Completes Jacket Installation for BorWin Kappa Platform in the German North Sea

Heerema Marine Contractors' semi-submersible crane vessel *Sleipnir* installed the jacket foundation for the BorWin Kappa offshore converter platform in the German North Sea in March 2026, marking a key construction milestone for TenneT's BorWin6 offshore grid connection project. The jacket, which weighs nearly 5,000 tonnes, was fixed to the seabed with ten piles, preparing the location for a topside float-over operation expected later in 2026.

The work was carried out by Heerema on behalf of McDermott International, which was awarded the engineering, procurement, construction and installation scope for the BorWin Kappa topside and jacket in 2022. Construction of the offshore converter platform began at McDermott's Jebel Ali yard in Dubai in July 2023. Earlier in 2026, Mammoet completed the transport, loadout and mooring of the 5,461-tonne jacket foundation at the yard using 216 axle lines of self-propelled modular transporters, before the structure sailed out to Europe for installation.

Once the topside float-over is completed later this year, the BorWin Kappa platform will form a central component of the BorWin6 grid connection, a 980 MW high-voltage direct current system designed to transmit offshore wind energy from the German North Sea to the mainland via a 235-kilometre cable route terminating at the onshore converter station near Buttell in Schleswig-Holstein. The project is scheduled to become operational in 2027.

The BorWin6 development forms part of TenneT's broader programme to strengthen and expand Germany's offshore grid infrastructure, connecting a growing pipeline of North Sea wind capacity to the national grid and supporting the country's energy transition targets.



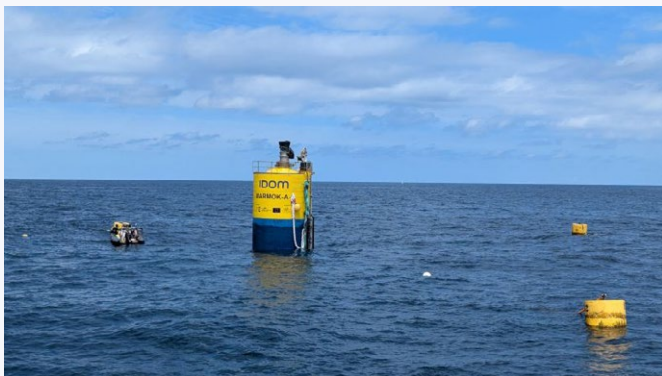
EuropeWave Advances as IDOM Deploys MARMOK-A-5 Wave Energy Converter Off the Spanish Coast

Engineering company IDOM completed the deployment of its modified MARMOK-A-5 wave energy converter at the Biscay Marine Energy Platform (BiMEP) test site off the coast of Bilbao in May 2026, marking a significant step forward in the EuropeWave pre-commercial procurement programme. The MARMOK-A-5 became the first wave energy converter to connect electrically to the grid through the HarshLab buoy at the BiMEP site, a milestone that moves the device into an active offshore commissioning phase.

IDOM's MARMOK concept is based on an Oscillating Water Column principle, where wave motion drives air flow through a turbine to generate electricity. The 42-metre spar buoy, with a draft of 36 metres and a diameter of five metres, features a newly developed power take-off system designed to improve energy conversion efficiency while maintaining reliability in demanding offshore conditions. The revised design was developed specifically within the EuropeWave programme, incorporating lessons from previous testing campaigns including an earlier deployment of a similar device at BiMEP between 2016 and 2019.

The MARMOK Atlantic project is one of three wave energy initiatives in the final phase of the EuropeWave pre-commercial procurement programme, which supports the development and demonstration of innovative wave energy solutions across Europe. Data collected during the offshore test campaign will be used to validate the system's performance, reliability and long-term operational capability as the sector edges closer to commercial-scale deployment.

The deployment is part of a broader effort to demonstrate that wave energy can become a viable contributor to the future renewable energy mix. By combining floating platform technology with advanced turbine systems, IDOM is seeking to show that the technology can operate reliably under real sea conditions and generate meaningful performance data for future scalability.



Floating Reservoir Prototype Enters Offshore Testing Phase in Italian Waters

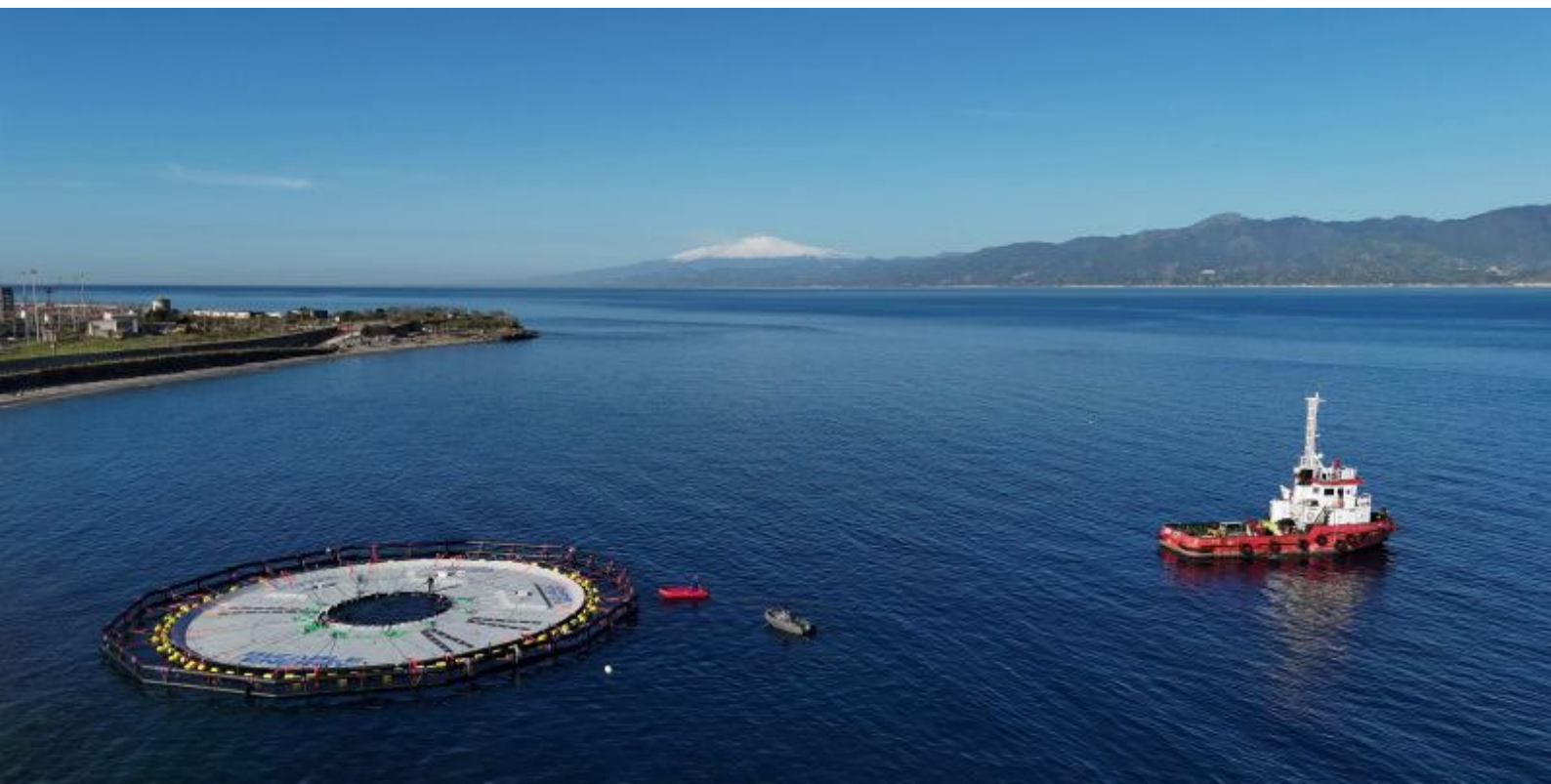


A 50-metre floating reservoir prototype was successfully deployed in the waters off Reggio Calabria in southern Italy, entering the next stage of an offshore testing programme aimed at validating the system's structural performance and operational capabilities under real marine conditions. The deployment is connected to the work of Sizable Energy, an ocean energy storage startup that raised USD 8 million in late 2025 to advance its offshore pumped hydro storage technology from wave basin testing at the Maritime Research Institute Netherlands to full sea trials in the Mediterranean.

Sizable Energy's system represents a novel approach to long-duration energy storage. Rather than relying on freshwater reservoirs and dams in the conventional pumped hydro model, the concept uses saturated sea-salt brine, approximately 20 percent denser than seawater, which moves between a floating surface reservoir and a deep-water reservoir. The system harnesses gravity and ocean depth to store and release energy at scale, without the land use constraints or environmental footprint associated with onshore hydro infrastructure.

The Italian pilot is designed to validate the floating system's assembly and deployment process and to generate operational data that will inform further design optimisation and scale-up efforts. If the trial proceeds as planned, the company expects to move into commercial project development at multiple global sites from 2026 onwards, working with energy providers, governments and local manufacturers to bring long-duration ocean storage to market.

The project reflects a broader pattern of innovation in floating marine technologies, where offshore engineering approaches developed for the oil and gas sector or for wind energy are increasingly being adapted for new energy storage and infrastructure applications beyond their original context.



China Installs World's Largest Single-Unit Floating Offshore Wind Platform off Guangdong

China Three Gorges Corporation completed the installation of what it described as the world's largest single-unit floating offshore wind platform on 2 May 2026, in waters more than 70 kilometres off the coast of Yangjiang in Guangdong Province. The platform, named Three Gorges Pilot (or Sanxia Linghang in Chinese), was anchored in water depths exceeding 50 metres and consists of a 16 MW Goldwind wind turbine mounted on a 24,100-tonne semi-submersible floating structure, together with a newly developed mooring system.

The turbine has a rotor diameter of 252 metres and a maximum blade tip height exceeding 270 metres, placing it among the largest offshore wind units ever installed anywhere in the world. The floating structure was assembled in late April at Tieshan Port in Beihai, Guangxi, before being towed to the installation site. The mooring arrangement combines polyester fibre cables with traditional anchor chains attached to nine suction anchors fixed to the seabed, and the platform is equipped with 66 kV dynamic subsea cables and an active ballast control system that automatically adjusts water levels in the platform's pillar tanks to maintain stability in response to wave and wind loads.

The installation site presents challenging conditions, with design specifications including wave heights exceeding 20 metres and wind speeds reaching 73 metres per second, equivalent to a Category 5 super typhoon. Several new technologies were applied on the project for the first time in China, including the dynamic mooring configuration and intelligent monitoring systems. According to the project developers, the platform is expected to generate around 44.65 million kilowatt-hours of electricity annually, enough to power approximately 24,000 households.

The achievement reflects the rapid maturation of China's floating wind sector, where domestically developed technologies and manufacturing capabilities are accelerating the country's push toward deep-water and far-shore renewable energy development. It also underlines a growing technological gap between Chinese and Western floating wind platforms, with the Three Gorges Pilot representing a leap beyond the 14 MW turbines recently installed in European projects.



Export Cable Installation Completed at Taiwan's Fengmiao I Offshore Wind Farm

Belgian marine contractor Jan De Nul completed the installation of two high-voltage subsea export cables for the Fengmiao I offshore wind farm off the coast of Taichung, central Taiwan, announcing the milestone on 20 April 2026. The two cables, measuring 45 kilometres and 44 kilometres respectively and together weighing more than 8,000 tonnes, were installed using Jan De Nul's cable-laying vessel Willem de Vlamingh and are now wet-stored offshore, awaiting the installation

of the offshore substation jacket before being pulled in and connected.

Export cable installation is widely regarded as one of the most technically demanding phases of offshore wind construction, requiring specialist vessels, precise seabed routing and carefully managed marine conditions to ensure accurate placement and long-term protection of the cables along their designated corridor. With the cables now in place, Jan De Nul is proceeding to the cable burial phase, using a trencher to embed the cables in the seabed for protection.

Fengmiao I is a 495 MW project being developed by Copenhagen Infrastructure Partners approximately 35 kilometres off the Taichung coast. The wind farm will comprise 33 Vestas 15 MW turbines installed on three-legged jacket foundations, plus an offshore substation on a four-legged jacket structure. Financial close for the project was reached in March 2025, with around TWD 103 billion in project financing secured from 27 international and Taiwanese banks. Construction began following a final investment decision in March 2025, and the wind farm is targeted for completion and grid connection to Taiwan Power Company's Taichung Zhongqing substation in 2027.

Fengmiao I forms part of the broader Fengmiao project, which has a total planned capacity of 1,800 MW across three phases. Progress on the export cable installation signals that the project is advancing steadily through its offshore construction schedule, with foundation installation also expected to begin in 2026. The milestone further highlights the growing maturity of Taiwan's offshore wind sector, where large-scale marine construction campaigns are increasingly being delivered by experienced international contractors working within robust local regulatory frameworks.



Seatrium Advances Floating Wind Platform Development After Securing ABS Design Approval

Singapore-based offshore engineering group Seatrium Marine and Deepwater Technology received Approval in Principle from the American Bureau of Shipping (ABS) in May 2025 for its proprietary Floating Wind Semi-Submersible (FWSS) platform design, intended to support 15 MW offshore wind turbines. The approval followed a comprehensive design review by ABS based on class and statutory requirements, and represents a progression from an earlier Approval in Principle, further validating the platform's technical readiness for large-scale offshore deployment.

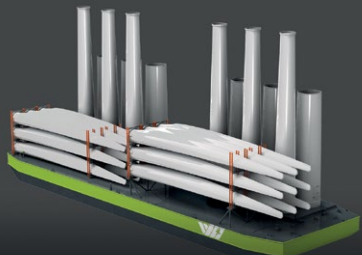
The FWSS design features a central column that supports the wind turbine, complemented by pontoons on three sides of the structure. The semi-submersible configuration is optimised for efficient fabrication and cost-effectiveness while being engineered to withstand harsh offshore environments. The design supports modular fabrication and scalable industrial deployment strategies, which Seatrium says will simplify transportation and offshore integration while enabling deployment in deeper water locations.

The FWSS concept draws on Seatrium's extensive experience in deepwater offshore engineering and engineering, procurement, construction and installation delivery. The company's integrated project delivery approach covers the full scope from engineering through procurement and construction to final offshore integration, positioning Seatrium as a provider of end-to-end floating wind solutions rather than a component supplier alone.

Classification approvals such as the ABS Basic Design Approval are becoming an increasingly important step in the floating wind development process, demonstrating technology maturity and reducing perceived project risk for developers, investors and regulators. As the floating offshore wind market moves closer to commercial-scale deployment in Europe and Asia, independent validation of platform designs is expected to play a growing role in unlocking project financing and accelerating final investment decisions.



OFFSHORE EQUIPMENT



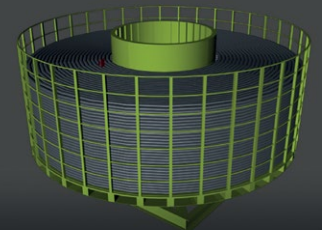
BARGE / PONTOON



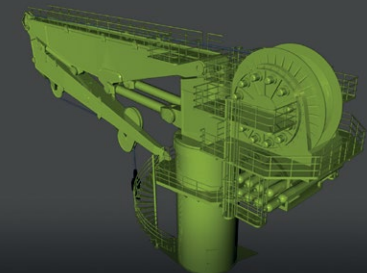
ACCOMMODATION MODULE



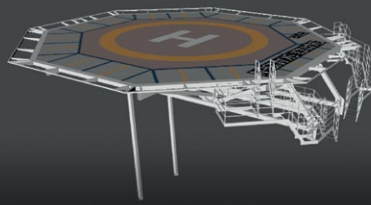
TRANSFER SYSTEM / GANGWAY



CABLE CAROUSEL / TURNTABLE



CRANE



HELICOPTER DECK



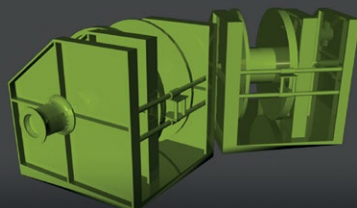
OFFSHORE CONTAINER



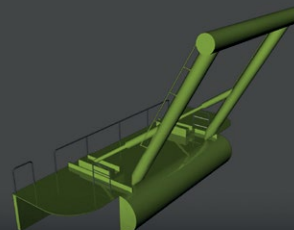
CABLE INSTALLATION EQUIPMENT



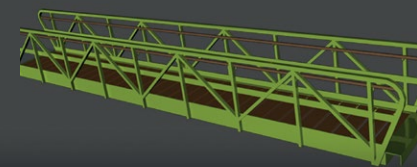
REMOTE OPERATING VEHICLE (ROV)



MOORING SYSTEM / WINCH



A-FRAME



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