

Wind floater awarded class AiP



Illustration of the wind floater

TLP DESIGN | SBM Offshore has been awarded Approval in Principle (AiP) from classification society ABS for a floating offshore wind plant based on a tension-leg platform (TLP) design. The wind floater, which includes mooring system and a commercially available offshore wind turbine,

has been developed using detailed wind and metocean data for a site off the coast of France.

The Amsterdam-based company has worked closely with French partner IFP Energies Nouvelles in design of the unit which can undergo a wet tow with the turbine installed. The design has been developed using proprietary design tools and a detailed wind turbine model, including the controller.

The significance of the AiP is that it verifies that the floater is feasible for the intended application and, in principle, it is in compliance with the relevant requirements of the ABS Guide for Building and Classing Floating Offshore Wind Turbine installations. The classification society's review also affirms SBM's confidence in its wind floater design, specifically its low mass, minimal seabed footprint and low motions at nacelle level.

"We are very proud of this Approval in Principle and it is a testament to the exper-

tise and innovative spirit at SBM Offshore," commented Séverine Baudic, managing director, Floating Production Solutions at SBM Offshore. "It represents a key step in the development process towards large-scale application of our wind floater, while underlining SBM's strong commitment to renewable energy solutions."

Floating wind power is at a relatively early stage of development but offers significant potential because floating turbines can be deployed in deeper waters where wind flows are often stronger and more consistent. The first facility – *Hywind Scotland* – came on stream in October 2017 and is now generating sufficient power for up to 20,000 homes. The 30-MW floating plant is located 25kms off the coast of Aberdeenshire in water depths ranging from 95-120m.

Tension-leg platforms have been widely used in the offshore industry and have the advantage that they are suitable for use with floating plant in deeper waters.

Offshore wind sector to underpin helicopter demand

LOGISTICS | Airbus Helicopters anticipates demand for as many as 1,000 new helicopters and potential revenues of up to EUR 9 billion to service the logistics requirements of the offshore wind sector over the next two decades. Higher turbine output and more electricity generated offshore mean that wind farm operators will rely increasingly on an efficient, rapid-response logistics system with prompt availability to limit losses in the event of a problem, the company believes.

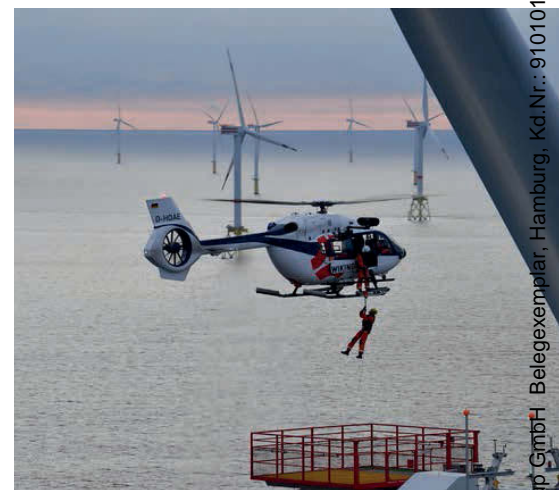
The benefits of helicopter-centred logistics increase as wind farms move into deeper waters further from shore, executives commented when outlining the company's supply, maintenance and crew transport services at the recent WindEnergy expo in Hamburg. For example, a helicopter can fly 40 nautical miles in just 20 minutes, making it a significantly faster alternative to a sea service vessel.

The company offers helicopters with a variety of specs for crew transport, maintenance and rescue missions in this sector.

They include the H135, H145 and H175 models, and the H160 is also expected to be available for operators in this market. With two engines and four-axis autopilots, these helicopters can hover in the air and safely and precisely winch down personnel and goods to the exact positions in which they are required. The helicopters are usually available on lease arrangements.

Wind farm operators can now use a logistics calculator, developed by Airbus, to determine the most operationally and environmentally efficient combinations of transport, taking into account both air and sea transport as well as specialised vessel requirements. The model factors in variables including weather, location and the number of turbines at the wind farm.

"Helicopters are an integral part of any logistics concept for offshore wind farms," commented Dennis Bernitz, Airbus Helicopters' head of Western Europe Sales. "Our helicopters can complete missions for wind farms in a particularly quick, eco-



Helicopters may simplify logistics in the offshore wind industry

nomical, safe and environmentally friendly manner. Helicopters can be used to deploy technicians or medical personnel in emergencies, even in rough seas, and can also transport operating personnel between the shore and the wind farm."