



WindEnergy

NETWORK

COMMUNICATION HUB FOR THE WIND ENERGY INDUSTRY

Marine Coordination

Global Offshore Wind 2016 Preview

Subsea Umbilicals
& Seals

WORKBOATS



The right vessel for the job

With the development of offshore windfarms in Britain's coastal waters looking set to continue in the years ahead, developers and operators are rightly becoming ever more selective when choosing the vessels for their projects. As more offshore windfarms reach the construction stage, so vessel designers and ship builders are coming up with variations and options to meet what is becoming a diverse demand.

SIZE AND DISTANCE FROM SHORE

There are currently 23 operational windfarms off the coast of the UK, ranging from the small Beatrice in northern Scotland to the 160 turbines of Gwynt y Môr off the coast of North Wales. Distances from shore vary tremendously with Blyth offshore being just 1.6 kms from land whilst Greater Gabbard is 23 kms offshore. It's worth bearing in mind that the actual distances travelled from the operational port to site as opposed from landfall to site, increases these figures considerably.

The Dudgeon offshore windfarm, which is now under construction off the North Norfolk coast, is even further away at 32 kms, and with planned developments such as Dogger Bank being at even greater distances out to sea, the need for a diverse range of vessel types has been acknowledged. This is clearly demonstrated by the decision of the Dudgeon operations team to charter a Service Operational Vessel (SOV) to facilitate and support the maintenance of the Dudgeon offshore windfarm.

ON THE EAST COAST

The shallow waters and high wind speeds off the UK's eastern seaboard has resulted in a significant percentage of the existing and planned windfarms being located in the North Sea. However working in the North Sea presents serious challenges, as the water is often rough and the swells high. It therefore follows that the types of vessel used in both the construction and operational phases of a windfarm are of vital importance to the health and safety and efficiency of all those working on site.

PTV ANSWER

Tidal Transit is one of the most successful companies providing PTVs for the transfer of windfarm personnel from land to offshore windfarm sites. It has built a fleet of purpose-designed vessels each of which provides four crew members and twelve passengers with comfortable beds, bathrooms, galley, internet access and entertainment facilities, allowing windfarm engineers and support technicians to live and work offshore for up to several days at a time.

Each vessel has been in constant use since its arrival from its Spanish boat builder, and over the last 5 years they have been variously on charter at Greater Gabbard, Sheringham Shoal, Westernmost Rough and Gwynt y Môr.

Rugged GRP construction enables the company's vessels to operate in rough seas – a major advantage when working in the North Sea. Twin V12 MAN engines facilitate speeds of up to 27 knots when carrying twelve passengers, the crew, and their on-board cargo.

Massive cargo decks fore and aft can accommodate up to 10,000kg of tools, equipment and spares, and the Guerra crane on the fore deck has a lifting capacity of 1,025kg at 6.9m, which caters for long reach loading and unloading. Cranes can also be deployed for camera surveys and grab sampling.

WAVECRAFT JOINS THE FLEET

The WaveCraft is manufactured by Umoe Mandal in Norway, and is considered an industry 'game-changer' by those who have been exposed to this remarkable vessel. The first vessel was chartered by Dong Energy for use at its Borkum Riffgrund windfarm off the coast of Germany, and Tidal Transit has taken delivery of the second one, Umoe Firmus, for which the company will be the UK operator under a ship management contract with Umoe Unda.

The WaveCraft is a Surface Effect Ship (SES) which uses an air cushion between its catamaran hulls to lift 80% of the vessel out of the water. The small draught that this creates provides the vessel with easy access to ports, and enables it to travel at high speeds [40 knots] whilst maintaining a low fuel consumption that gives it a range of more than 700 nautical miles.

Importantly, managing the pressure of the air cushion according to wave height allows for smoother voyages and provides a greatly increased opportunity for access to turbines – up to wave heights of 2.5 metres.

The company will operate the Umoe Firmus alongside its existing fleet of PTVs and has finalised the first UK charter agreement for this exciting new vessel, having entered into an initial six-month agreement with Statkraft, with a longer term extension option, to use

the vessel to transport its O&M turbine technicians into the 88 turbine Sheringham Shoal Offshore Windfarm.

This is located from 9-17 miles off the coast of North Norfolk in the southern North Sea, and Umoe Firmus is operating from the port of Wells-next-the-Sea in Norfolk where the windfarm's O&M base is located.

A DEVELOPING INDUSTRY

Leo Hambro, Tidal Transit's Commercial Director believes the offshore wind industry will change considerably over the next decade, saying: "Offshore wind is a young industry which is developing very rapidly, and announcements such as £2.5 billion confirmed funding for the East Anglia One offshore windfarm, stimulate further growth and development throughout the supply chain."

"Vessels are of course a vital element of this supply chain, and vessel design and technology will need to continue to develop in order to meet developers' and operators' stringent HSE policies and demanding financial models."

"Our plans for the development and growth of Tidal Transit will ensure that our fleet can always offer 'the right vessel for the job'."

Tidal Transit

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