

# US offshore wind power plans pick up pace

**Applicability of Jones Act to vessels involved in construction remains key issue**



Barry Parker — New York

OFFSHORE wind is not yet online in the US, but it is coming. As the summer wanes in the energy-starved northeastern US, the privately held company Deepwater Wind has filed an application with the Department of the Interior to build a 1,000 MW (1 GW) windfarm in federal waters 18 miles offshore, between Block Island and Martha's Vineyard.

The company, whose investors include the hedge fund DE Shaw and onshore developer First Wind, had previously put in an application for a more modest, 30 MW pilot project costing \$205m, to be located nearer to Block Island.

According to an announcement at a mid-October conference on the US offshore wind markets, Deepwater Wind has selected turbines from Siemens, each generating 6 MW — nearly double the output of more standard turbines. An underwater transmission line would link via Block Island to the shore-based grid, where power would be sold under a 20-year deal.

In perspective, government officials speaking at the Baltimore conference, hosted by the American Wind Energy Association, said current US onshore wind capacity was approximately 40 GW.

The two agencies with oversight for offshore wind, the DOI and the US Departments of Energy, produced a



Sights raised: a US strategic plan aims for 10 GW of offshore wind power capacity by 2020.

strategic plan in February that set goals of 10 GW of offshore capacity by 2020 and 54 GW by 2030. A \$43m grant programme aimed at offshore wind technology was announced last month by the DOE.

The venue for the AWEA conference — Baltimore on the US mid-Atlantic, for the second year in a row — was not an accident. Baltimore sees an opportunity to gain hub status if projects along the New Jersey, Maryland and Virginia coast advance.

New England niche ports, including Davisville (south of Providence) and Fall River/New Bedford, are also hoping to benefit from Deepwater Wind and from the Cape Wind project, which would use more standard 3.6 MW turbines from Siemens in a configuration south of Cape Cod.

At an AWEA session on supply chains serving this nascent energy segment, speaker Scott Keating, representing Danish turbine-producer Vestas, said: "When these offshore projects actually start to get constructed, that's when this supply chain will start to move." For now, the US offshore work is mainly about surveys and studies.

Projects in the planning stages can be found along the east coast, all at various stages of discussion and permitting but none as advanced as Deepwater Wind's Block Island pilot, where construction could begin in 2013 or 2014.

The Cape Wind project, seeking to build a 130-turbine array in Nantucket Sound south of Cape Cod, is sparring with environmentalists and possible utility customers. Off southern New Jersey, another pilot project, Fisherman's Energy, seeks to link six wind turbines aggregating 25 MW to the onshore power grid near Atlantic City.

A wide swath of future projects could be tied to an undersea cable project, the Atlantic Wind Connection, an underwater power line that would run several hundred miles through the mid-Atlantic Bight, which is parallel to the US coastline. Investors in AWC include Google and Marubeni Corp.

A central question surrounding any of

these projects is the applicability of the Jones Act, the cabotage legislation enacted in 1920 and often parsed and occasionally pierced in the decades since. The law is clear that vessels and support craft transporting supplies or crew from the mainland out to offshore sites must be US built, owned and flagged.

However, experts in this body of law have cast doubt on whether stationary jack-up-like vessels assembling the huge offshore wind turbines must legally be flagged in the US registry, much less built and owned in the US. A Cape Wind spokesperson had indicated existing US-flagged vessels could be adapted for wind

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Maritime lawyers, Squire Sanders

turbine assembly in calmer waters, such as in Nantucket Sound.

Higher-specification lift boats, of the type used offshore Gulf of Mexico, offer crane capacities as high as 100 tonnes and can support deck loads of 500,000 lb. For rougher waters, such as off the mid-Atlantic coast, no suitable US-flagged vessels exist.

Maritime lawyers at Squire Sanders, in a 2010 presentation, said: "Even if the Jones Act does apply to offshore wind projects, both exceptions and waivers exist to avoid its application."

The lawyers, citing a Customs and Border Protection ruling, added: "A vessel used in monopole installation, and even the installation of the turbines themselves, does not constitute coastwise trade under the Jones Act. Foreign-flagged vessels and crews may be used for these activities (albeit the components installed would have to be transported by a US flag

coastwise qualified vessel unless all such transportation can be arranged from a foreign port directly to the installation site with no US entry)."

Nevertheless, in mid September, a bill was introduced into the US House of Representatives that would mandate that all drilling rigs working on the US continental shelf, or supporting drilling, be US-flagged.

Charlie Papavizas, a Washington DC-based partner at Winston & Strawn, wrote that the bill's language does not specify that vessels be Jones Act-qualified, where requirements include US building and ownership by US citizens.

In describing the bill, Mr Papavizas added: "A US-flagged vessel that is not Jones Act-qualified generally can have ultimately 100% foreign beneficial ownership." If the bill gains traction, vessels in the offshore wind energy trades might also undergo political scrutiny.

Maritime supply chains also include ancillary service providers. Fugro (well known from the offshore surveying business) announced its involvement in Poseidon Atlantic.

This project, described as being a private sector initiative (developed by Fugro and Dutch partners with encouragement from the powerful Virginia Port Authority) will be a testing station for offshore power-generating hardware.

The Port of Virginia said on its blog: "The Port of Virginia is perfectly positioned to build cargo volumes and capitalise on a project that would place the world's first certification facility for large, offshore wind turbines on Virginia's eastern shore."

Netherlands-based partner Ecofys hopes to build on its successful European experience. "In February 2011, Dutch consultancy Ecofys [one of the partners] inaugurated Europe's largest onshore wind turbine test centre in Lelystad, the Netherlands, and is now set to play a major role in the US project," it said. ■

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## EAST COAST US, WINDFARM PROPOSALS

Locations approximate



# UK to have world's biggest offshore wind capacity by 2017

THE European Wind Energy Association's end 2010 statistics showed overall European Union wind energy capacity at 84.3 GW (with a further 2 GW in non-EU Europe), including 2.9 GW being described as "offshore and near shore", writes Barry Parker in New York.

An EWEA blog, citing a recent economic forecast for the offshore sector, said: "The report found that the UK would have by 2017 the highest installed offshore wind capacity at 12 GW, China slightly less than 12 GW, and Germany at 10 GW."

As noted in the blog: "The biggest markets for offshore wind, for at least the rest of this decade, will be in northern European waters."

All this activity around northern Europe provides steady employment for support craft servicing the sector. According to the EWEA, the first half of 2011 saw 101 turbines, totalling 348 MW, fully connected to power grids, mainly in the UK and Germany, and 108 turbines installed in windfarms.

Additionally, 129 foundations were laid at farms in Belgium, UK, Germany and Norway. A trend towards installation of larger turbines (with Siemens dominating the leagues of installed equipment) was noted by the EWEA.

In the UK, installed capacity at the Greater Gabbard windfarm in the North Sea off Suffolk will eventually reach 500 MW. At end-September, approximately all 140 pilings had been completed and 100 of the 3.6 MW turbines installed. Seaway Heavylift's Stanislav Yudin was employed by project contractor Flour Corp to install the monopole foundation.

To date, the turbines, manufactured in Denmark, have been transported by BBC Chartering's *BBC Konan* into Harwich and then barged out to the windfarm site roughly 30 km offshore. Supply chains are dynamic; Siemens has committed to build a turbine manufacturing plant in Hull to supply future projects.

Vessels transporting large components have included Seajacks. Other vessels in the same owning group, *Seajacks Kraken* and *Seajacks Leviathan*, had been contracted for earlier phases of the installation work.

Jumbo Offshore's *Jumbo Javelin* had also played a role in transporting 'transition pieces', connecting the turbine to its foundation.

A recent milestone at Greater Gabbard is the completion of a cabling array by Offshore Marine Management, using the Volstad Maritime's cable layer *Deep Cygnus*.



Jumbo Javelin played a role in transporting transition pieces to the UK's Greater Gabbard windfarm.

Other cable layers that have worked the project include Farstad's *Far Ocean*. A host of support vessels from owners including Bourbon, Vroon and Solstad have also participated.

Harwich is also providing a base of operations for work on the 630 MW London Array, off the Essex and Kent coast, to the south of Greater Gabbard. Vessels working Phase 1, which will see 175 turbines

installed when construction is completed, include two newbuildings from MPI Offshore Ltd (tied to Vroon) — *MPI Discovery* and *MPI Adventure*, both of which are assisting with turbine installation, alongside A2Sea's *Sea Worker*.

*MPI Adventure*, built in Cosco's Nantong yard, features a crane with 1,000 tonnes lifting capacity, enabling the vessel to also conduct installation of the

transition pieces. A sister, *MPI Discovery*, has been chartered in for six years by E.ON, one of three partners in the London Array Consortium.

Dong Energy, another partner in the London Array, is spearheading a pair of projects in the Irish Sea — Walney 1, already producing power, and Walney 2, under construction since March, 2011, with support mobilised from Barrow and Mostyn harbours.

Vessels from Seajacks and Jumbo Barge have participated in heavylifting, with cable laying provided by Stemat Marine's *Stemat 82* and *Stemat Spirit*.

As installation of 51 turbines nears completion, a late September project newsletter, referring to the Seajacks vessel that had previously worked Greater Gabbard, said: "[Seajacks] *Kraken* headed for the harbour of Mostyn to get the last two turbines for Walney 2."

The newsletter adds: "With a total capacity of 367 MW, Walney Offshore Windfarms will snap the title as the world's largest offshore wind farm from the 300 MW Thanet Wind Farm. However, the title will be lost very quickly as the 500MW Greater Gabbard and 630 MW London Array are both expected to be completed in 2012." ■

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