

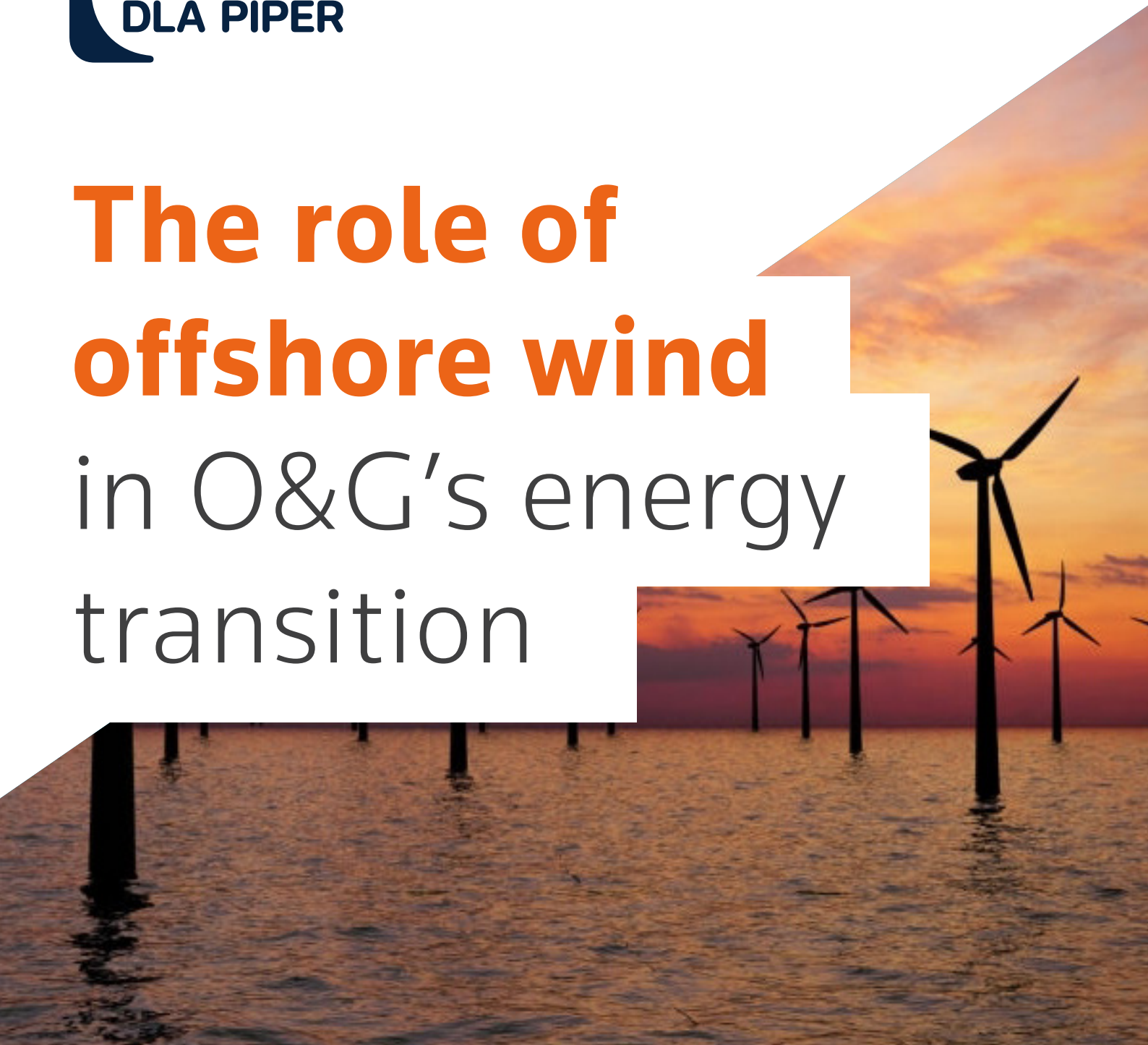


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The role of offshore wind in O&G's energy transition





Introduction

The oil and gas sector is looking to change. Faced with an inevitable decline in long-term prospects resulting from climate change and the need for an energy transition, oil and gas companies increasingly realise that their future lies outside fossil fuels. As a result, around 70 percent of the members of the UK offshore oil and gas industry body OGUK are already looking to diversify into new technology areas, according to the association's market intelligence manager, Ross Dornan.

"More than three-quarters of supply chain companies

are expected to increase their exposure to non-oil-and-gas work this year," he adds.

This push for diversification is extensive, to numerous fronts, from electric vehicle charging to nuclear fusion. But one low-carbon industry of particular interest, given its potential for scale and overlap with existing oil and gas skills sets, is offshore wind. This paper, developed with global law firm DLA Piper, looks at what oil and gas can offer offshore wind, what oil and gas can offer offshore wind, what it can get it out—and whether, in time, it might dominate the sector.



The offshore wind opportunity

The offshore wind market is set to grow to 281 GW of capacity by 2030, says David Linden, head of energy transition at the specialist market intelligence firm Westwood Global Energy Group. That is up from just under 34 GW at the end of 2020, with 46 percent growth expected for this year alone. This massive growth potential and estimated returns of up to 10 percent make offshore wind a major target for oil and gas diversification efforts.

"Based on our outlook, the oil majors will see their

combined capacity share catch up with offshore wind giant Ørsted in the coming decade," Linden says. "While renewables make up a very small portion of energy production and capex spend for the oil majors, it is the ambition and the outlook in the offshore wind sector which is eye-catching."

Oil majors "will continue to play an increasingly important role in this sector," he concludes. "More than 50 percent of the 8 GW awarded in the UK's fourth offshore wind leasing round went to consortia featuring oil majors."



What can oil and gas offer?

Experts agree the oil and gas industry potentially has much to offer in offshore wind. "These companies have large pools of capital to spend, something the offshore wind sector needs to grow," says Linden.

The oil and gas sector's experience in offshore infrastructure, from foundations and structures through project management to working with moving cables or seabed surveys, is also a key asset, Linden notes. "Oil majors are also often present in a number of global locations and are well connected locally through their historic oil and gas investments."

In addition, the oil and gas sector could become a source of demand in offshore wind, using the renewable energy for

platform electrification as part of its emissions intensity reduction agenda. Oil and gas companies "can offer a huge amount of insight into the longer-term implications of offshore assets," says Philip Nurse, senior investment manager with renewable energy project developer Red Rock Power.

"Most advantageous is their experience in building and operating offshore," he says. "This ranges from foundation design to the practicalities of servicing offshore instalments and, critically, health and safety."

Oil and gas players, Nurse adds, "are also likely to have a significant impact on floating wind, because of the timing of their involvement and their experience further offshore."

"Oil and Gas companies have deep R&D pockets, which is exactly what's needed across the whole renewable energy sector, and the offshore wind market is undoubtedly benefiting from their investment. The levels of investment needed to turbocharge the energy transition are vast and some of that investment will come from the O&G companies as they have the funds, and the infrastructure in place to turn innovations into action,"

**Natasha Luther-Jones,
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Taking action

Chevron made headlines in April 2021 by becoming the first US major to invest in offshore wind.ⁱⁱ But in Europe the majors already have a long history of involvement in the offshore wind sector, with oil and gas players having prominent roles in some of the most significant projects to date.

One example is Equinor's involvement in the Dogger Bank project, which is the world's largest and is slated to deliver 9 percent of the UK's 2030 offshore wind capacity target.ⁱⁱⁱ Similarly, Total last year bought into Seagreen 1, one of the largest offshore wind farms in Scotland.^{iv}

"Fixed offshore wind is seen as currently the most mature renewable asset class, enabling oil and gas players to deliver volume relatively quickly," says Jean Vercoutter, director of power and renewables project finance at Mitsubishi UFJ Financial Group (MUFG). "Many majors have made pledges to reduce their carbon emissions before 2050, and we see many players participating in auctions for projects to be delivered by 2030. We expect players to have significantly ramped up their track record in the sector by then."





Oil and gas's impact on offshore wind

The advent of oil and gas companies in European offshore wind auctions has “undoubtedly made for a more competitive landscape,” says Red Rock’s Nurse. “This has the potential to drive out less financially robust players, and with it the innovation and experience they bring to offshore wind.”

Vercoutter at MUFG agrees the offshore wind market has become increasingly competitive, “and whilst returns are reducing the development lifecycle remains long and development risks high,” he says. “In that context, oil and gas companies with large balance sheets are able to compete into the vast majority of international auctions simultaneously, increase their experience in the sector and develop and strengthen regional links.”

At the same time, much of oil and gas’s contribution to offshore wind is positive, says Westwood’s Linden. “We are seeing collaborations, partnerships and mergers and acquisitions combining the potential benefits that the oil and gas sector can bring with others who can complete the necessary set of capabilities and speed-up market access,” he says.

The result, says Linden, is “a really fascinating combination of companies in recent leasing round bids: oil and gas company capabilities being integrated together with the supply chain, other offshore wind developers, floating wind experts [and] investment groups.”



Can oil and gas dominate offshore wind?

Oil and gas's vast access to finance and deep offshore expertise provides the industry the foundation to dominate in offshore wind. Oil and gas players "have readily accessible capital and at a lower cost, making it difficult for traditional offshore developers to compete with," says Nurse at Red Rock.

"They also typically have faster and more efficient decision-making processes, making them a formidable opponent in any competitive setting."

This competitive advantage is even greater in the emerging field of floating

offshore wind, says MUFU's Vercoutter. "In the context of floating, we see a lot of interest from oil and gas players," he says.

Oil majors see floating as a route to higher-risk, higher-reward assets, he says. And floating foundations have been used for decades in the oil and gas industry, giving players a head start on the technology. "Whilst there are technical challenges in changing the topside from a process platform to a wind turbine, oil and gas players are expected to be in a position to leverage on experience drawn in their traditional business," Vercoutter says.

"Oil and gas companies's experience in managing construction and operational risk in deep waters make them a necessary catalyst to drive the floating offshore wind asset class towards maturity,"

– Bruce Chen, of Counsel, DLA Piper

Outlook and conclusions

Though it is perhaps too early to say whether oil and gas companies will rule the offshore wind market in years to come, they are already having a significant impact. And that impact will only grow over time, particularly as floating platforms go mainstream. "Oil and gas companies have a strong potential to contribute to the development of offshore wind and we do not see areas where they could hold back its development," says Vercoutter.

"Even the national oil companies likely to be the producers of the last barrels of oil recognise the need for those barrels to be the lowest carbon, hence even they have an important role in the future of renewables."

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Red Rock's Nurse agrees that oil and gas companies' involvement in offshore wind "is likely to accelerate growth in the sector by injecting the enormous sums capital synonymous with offshore development. Their potential to dominate the market will be hindered by their late participation in the sector, the increasing global demand and interest in renewables from other tertiary industries and their access to capital and sustainability in a low-return market," he says.

At the same time, petrol company forecourts will likely end up selling offshore wind products, either in the form of electricity or hydrogen. Experience suggests the companies owning the forecourts might want to control the upstream action, too.

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Podcast:

Listen to this episode of DLA Piper's 'The Climate Transition Podcast' where Olivia Breese from Ørsted joins us to discuss the health of the offshore wind market: [When will offshore wind go truly global?](#)



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