

# Blowing in the wind?

Offshore wind is billed as a potentially vast economy bursting with promise, but, asks Sarah Speight, is it a viable investment?

THE OFFSHORE WIND sector has been steadily gathering momentum and its significance cannot be underestimated.

Offshore wind power is deemed the most productive type of renewable energy in terms of capacity; up to one-third of electricity generation in the UK could be provided by offshore wind by 2020, according to the Crown Estate (which owns and manages our seas). As such, the industry could be worth an astonishing £100 billion and create up to 70,000 jobs - if we play our cards right.

Clearly, these are facts not to be sniffed at. When the security of our energy supply is critical, and the need to generate greener energy grows ever more crucial, renewable energy holds much hope. But how viable is offshore wind as an actual long-term investment?

## The story so far

Currently, we generate enough energy from offshore (and onshore) wind turbines to power all the homes in Scotland (5 gigawatts). However, that figure needs to be closer to 24 gigawatts by 2020, and 47 gigawatts by 2025 – industry targets that Duncan Clark, commercial manager at the Crown Estate, sees as “demanding but achievable”. Despite criticism that the government is moving too slowly to make these plans a reality, there have been positive steps in the right direction.

Last October, the Department of Energy and Climate Change (DECC) and the Crown Estate signed a Letter of Intent to support the development of ports infrastructure for offshore wind. Earlier in 2010, the Crown Estate granted new swathes of the UK seabed in preparation for next-generation offshore wind farms

under the ‘Round 3’ development phase, which should emerge from the planning process in the second half of this decade.

Following the Spending Review in October, there were sighs of relief that the £60 million of funding to upgrade English ports got the green light. Relief indeed, because Siemens, GE and Gamesa have all committed to building offshore wind manufacturing facilities in the UK – a decision that was conditional on this funding and collectively could be worth £300 million. Plus, the capital will be delivered as a funding round, rather than a competition, allaying concerns that a contest would be detrimental to the market.

Last July, the government awarded £10 million to British supply chain companies to help them develop and demonstrate next-generation technology in readiness for deployment of next-generation technology. As one of the recipients pointed out, this will help to make offshore wind cost-competitive with onshore production, in terms of electricity generation.

And in June, energy giant Vattenfall opened the world’s largest offshore wind farm, off the coast of Kent. With 100 turbines, Thanet has a capacity of 300 megawatts – or the equivalent consumption of more than 200,000 British households.

Of course, billions of pounds have already been ploughed into offshore wind, with the likes of Tesco and BT in the UK (and Google in the US) jumping on board. Such big players clearly know an opportunity when they see one, not least because geographically, the infamously windy British Isles is one of the best locations in the world to produce offshore wind power.

For commercial property

developers and stakeholders, the biggest opportunities lie in the infrastructure and supply chain, such as ports, harbours, vessels and manufacturing facilities. And it doesn’t stop there – as Duncan Clark points out, even raw material commodities such as steel and copper form an important part of this industry. Furthermore, investment in cabling, through the Offshore Transmission Owner regulatory regime, could provide a low-risk, relatively low-return asset.

## Risk assessments

Currency fluctuations that affect the price of commodities presents one of the main risks to wind farm investment. Currently, the UK imports 80 per cent of its components for offshore wind turbines, resulting in exposure to uncertainty over exchange rates. To mitigate this problem, it is widely acknowledged that the UK must develop its own robust domestic supply chain, which, in itself, presents a huge investment opportunity. As David Craig, associate director of renewable energy at Lloyds, suggests, this would help to reduce such currency fluctuations and increasing production in this country will provide a natural hedge.

Another perceived risk lies in the technology itself. Even though we have been generating onshore wind energy in this country since 1991, the first UK offshore wind farm didn’t become operational until 2003 (in North Wales) and, as such, it is still an emerging sector here in Britain. From costly structural problems, to health and safety issues, the technology is seen by some as unproven.

But it is worth remembering that, although the industry is relatively new, the expertise is



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not: many big players have cut their teeth in industries such as oil, gas, manufacturing and shipping – expertise that we could do well to draw upon. And next-generation technology will prove just how far wind has developed. For example, compare current capacity (300 megawatts at Thanet being the largest) with potential capacity under Round 3 (up to 9,000 megawatts proposed on one farm) to understand the huge leaps in technology that can be achieved.

#### **Obstacles and solutions**

One of the main barriers to investment in wind is the lack of available capital, and financial products to attract capital providers, although this needs to be understood in the context of the global economic crisis. Even so, Ernst & Young published a

report that pointed to a £370 billion investment gap in investment required for green energy projects in the UK.

In terms of public funding, there is the proposed Green Investment Bank, in which the government has pledged £1 billion (although it has been argued that this is about £5 billion short). And policies such as Feed-In-Tariffs, which would pay for renewable energy production, could provide a solid incentive for investors with initial capital to play with.

To reiterate, the lack of a strong supply chain is one of the most important missing links to attract investment. As Prime Minister David Cameron admitted: “We need thousands of offshore turbines in the next decade and beyond, yet neither the factories nor these large port sites currently exist. And

that, understandably, is putting off private investors.” Granted, parts for offshore wind – as well as operations and maintenance – are notoriously expensive. But collaboration between developers and investment in cluster sites could alleviate this problem.

Also, the country’s cabling network is in dire need of an upgrade, partly related to deficiencies in the planning system. The mercenary abolishment of the Infrastructure Planning Commission (IPC) has rightly prompted concern from the industry. Dr Gordon Edge, director of policy at trade body RenewableUK, says: “The industry strongly advocates the swift introduction of a planning regime that can ensure that projects of national significance such as offshore wind can be considered

fairly and quickly.” However, some experts believe that the required planning regulations will not be in place in time to meet our ambitious carbon targets.

#### **Conclusion**

Despite such uncertainties, the fact remains that offshore wind presents a potentially lucrative investment. But in order for us to compete in this huge global industry, and to attract the required investment, the government needs to get the fundamentals in order. This sector could be worth billions of pounds, create thousands of jobs, help us to secure an independent renewable energy supply and help to dig us out of this monstrous fiscal black hole. These are hugely valid returns alone from what is an undeniably exciting opportunity. ■