

# LONDON MARKET: OFFSHORE WIND OF CHANGE



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The North Sea is about to experience a bonanza reminiscent of the oil rush of the 1970s. Europe's offshore wind energy market is forecast to be worth £75bn over the next decade, with the lion's share going to the waters off the UK. The weather may be miserable, but it sure can blow.

The planned London Array is the most dramatic manifestation of the country's commitment to harness one of its biggest natural assets. A project that defies the imagination, it will become by far the world's largest offshore wind farm. Situated 12 miles off the Kent and Essex coastline, it will cover 80 square miles and is expected to supply 7% of the country's energy needs by 2015, when the second stage is complete.

## TECHNICAL AND COMMERCIAL CHALLENGES

Think of 341 turbines towering 100 metres above sea level and linked by up to 700 different undersea cables, and then try to calculate the logistical complications of construction, maintenance and converting all this technology into usable electricity intended to power 750,000 homes. There is plenty of potential business here for insurance underwriters.

The Array is just one part of the jigsaw, although admittedly an exceptional one. Over the past 10 years, the ocean off the British coastline has been divided into plots chosen for their climatic conditions. Despite the enormous technical and commercial challenges, the franchises have proved popular with potential bidders. Just as Aberdeen became an oil town, some areas in the North-east are expected to enter a new era of prosperity on the back of wind power.

The last government's tax and carbon credit subsidies enticed would-be investors weary of the fluctuating commodity markets. The coalition government has continued to support the green approach, with the Department of Energy and Climate Change announcing £10m of grants for the offshore wind industry in July.

The London insurance market has been quick to rise to the challenge, reflecting its level of specialist expertise and willingness to take on new risks. The emergence of any extra segment of business is bound to excite interest, but especially a high-profile one such as this. Insurers, like everyone else, want to be seen to be green. As a result of this popularity, there are more insurers trying to get into the market than there are underwriting teams that truly understand the associated risks.

**Offshore wind energy is going to be big business – and so too the opportunities for insurers. But not all of it will be plain sailing for underwriters.**

The firms involved in construction generally work to the highest standards. For example, a consortium between Eon, Dong Energy and Masdar has footed the £2bn investment required to bring to life the London Array. And there have been complex technical discussions involving certification bodies in refining their codes and industry practices for offshore turbines to make them fit for purpose.

## UNCHARTED WATERS

But the fact is that we are entering proverbial uncharted waters. Although the technology is relatively simple — wind turbines have been around quite a long time — the logistics would stretch any organisation to the limit. No one has tried before to build or underwrite offshore wind energy on anything like this scale. The challenges of construction, connection, operations and maintenance, as well as access from either vessels or helicopter, make it unpredictable both in terms of cost and what might go wrong. Any given project can be disrupted by a series of factors including site-specific conditions, inclement weather delays, data management, availability of specialist construction vessels and market rates.

Offshore and onshore wind farms are different in many respects, and so the usual ways of thinking about the electrical aspects may not be appropriate. Clearly, costs will be higher than on land. However, reliability and availability are also much more important, because faults may be more frequent and could take much longer to locate and repair — with obvious cost implications. Furthermore, if one turbine fails to function, it could potentially knock out up to 20 others.

So, where does this leave insurers? Key lines include construction risk, faulty design, business interruption and product liability, loss of advance profit, professional indemnity and third-party liability. Of these, construction remains the biggest area and the one most likely to generate losses. We have already seen the market evolve tailored wordings and variations on industry standard Construction All Risks (CAR) policies for the specific purpose of constructing offshore wind farms. We have also witnessed the refinement of risk management procedures highlighting the specific challenges of erecting offshore wind turbines in shallow water.

A prime example of a potential worst-case scenario for business interruption would be the failure of the main onshore substation that distributes the total power production to the national grid. A similar incident has already taken place elsewhere in Europe. Were it to happen to the London Array, with an estimated output of 1,000 megawatts, the costs would mushroom in terms of business interruption.

The London market is famous, of course, for its appetite for large and difficult risks — and it will meet the challenge. Big as they are, the potential losses will be on a much smaller scale than the offshore oil sector. Inevitably, though, there will be losers as well as winners. Those underwriters who truly understand the risks and select them objectively, rather than simply jumping on the green bandwagon, will prosper. And they will also play a vital role in giving the UK a chance to meet its target of 15% of energy from renewable sources.

*A version of this article first appeared in Post Magazine in April 2010.*