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 wind energy 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.

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