ReedSmith

Round 3 of the UK's Offshore Wind Programme has challenges ahead

Author: Richard A. Ceeney, Partner, London
Author: Peter Cassidy, Partner, London
Author: Christopher Parrott, Associate, London

Publication Date: January 06, 2012

Introduction

Progress is lagging behind the Crown Estate's intended timescales for Round 3 of the UK's offshore wind programme. Why is this so and what can be done to put Round 3 projects back on track?

Background to Round 3

The UK is currently the world leader in the generation of offshore wind energy thanks to the first two rounds of site allocations for offshore wind farms which together comprise 8GW of generation capacity. As offshore wind generation is a key component of the UK's energy strategy going forward, the UK government is relying upon plans to extend this through Round 3.

Allocations for Round 3 were launched in 2008 with high hopes of producing an additional 25GW of offshore wind energy. The successful bidders were announced in early 2010 and construction is scheduled to commence in 2014. However, progress has not been as anticipated and industry estimations have queried whether there will be any substantial degree of offshore wind generation by 2018, as originally anticipated by the Crown Estate.

Size matters

The key reason for the pessimistic outlook is the current economic climate. The scale of the Round 3 allocations is so substantial that, even where the developer is a utility, many, if not all, of the projects will require external funding. Funding, it seems, is proving difficult to obtain.

For those utilities seeking to engage in Round 3, the option of conventional funding may not always be viable. In particular, utilities are generally not able or willing to allow a project to carry

debt and are rarely willing to cede control. They also need to reconcile risk profiles with investors, which is not easy given investors' typical aversion to risk, and the high level of practical risks inherent with this still-evolving sector.

Suppliers, such as wind turbine manufacturers, might be willing to participate in the investment. However, it is hard for them to agree to the risk profile that utilities require when in joint venture.

The Crown Estate had stated that it will co-invest with developers for up to 50% of the total investment for a development. This would go a long way to minimise the risk for institutional investors; however, there is no evidence that the Crown Estate is still planning to invest to this extent.

Due to the high capital expenditure required at the outset of offshore projects, funding needs to be in place prior to committing to a project. Many obstacles relating to funding need to be addressed before funding can be released. However, funding needs to be in place, or at least a binding commitment to the project needs to be made, before many of the obstacles can be overcome.

Here are some of the main obstacles

Cost of offshore developments

Compared to other renewable technologies, offshore wind is still relatively expensive in the short term. A KPMG report to be published soon reportedly estimates capital expenditure costs of around £3-4m per installed MW capacity, which is much more than equivalent fossil fuel energy.

Of course, any focus simply on capital expenditure will always make renewables look comparatively expensive. To do so ignores the reality that (unlike hydro, wind, tidal and PV generation for example) fossil fuel generators require a regular, and expensive, supply of fuel.

Nevertheless, the cost of onshore wind energy is significantly less than its offshore equivalent at the moment, as it is easier and less risky to install. Much, or all, of the required infrastructure (cabling etc) is already in place, and it is much simpler, and quicker, to maintain. However, the scale of Round 3 is significantly greater than anything that would be possible onshore; and, as the offshore market matures, costs, as they have for the onshore market over the last few years, are likely to decrease.

Wind turbine manufacturers are already focusing on reducing the cost of energy. They are doing this in a number of ways, the most obvious being to increase wind turbine size. For Round 3, it is unlikely that many wind turbines will have a nameplate capacity of less than 5MW. By increasing turbine size, one not only cuts installation costs (as there are fewer turbines to install to generate the same level of energy) but also reduces cost and frequency of maintenance, and enables efficiencies of scale.

The government is helping to drive cost reduction. £30m has been provided for research, with the goal of reducing offshore wind costs from around £120-140/MWh, as of 2011, to £100/MWh over four years.

It is likely that costs will fall over time. A report by the renewables trade body RenewableUK, published earlier this year, predicted that the cost of wind energy would drop by 15% between 2011 and 2022 under normal market conditions and up to 33% under favourable market conditions.

However, to attain this reduction, a significant degree of internal investment is required, which will not be released without order certainty. The industry itself acknowledges that there is much scope for greater efficiency through standardisation and more industrialised working practices, but investment must be made by manufacturers to achieve this. Similarly, in order to meet demand, infrastructure needs to be upgraded. Order certainty is needed to justify the investment needed for the construction of the necessary facilities, including the proposed facilities for Vestas in Sheerness and Siemens in Hull.

Planning

The planning process for offshore developments currently takes too long, costs too much and does not always give developers the outcome they desired. In fact, only one offshore project has been approved in the past three years; E.ON's Humber Gateway. There is additional uncertainty regarding the role of the Planning Inspectorate following the abolition of the Infrastructure Planning Commission with some commentators believing this change will lead to projects being further delayed by an additional six months.

The government has recognised this concern and hopes to streamline the process through the National Planning Policy Framework. For the establishment of manufacturing facilities, further assistance is offered to companies if they are in a CORE (see, below).

Concerns of utilities

It is still not clear to what extent the utilities will fund projects in the UK from their own balance sheets. Most of the UK utilities are foreign-owned. Therefore, they all have other concerns outside of the UK.

German utilities such as RWE, formerly NPower, and E.ON, formerly Powergen, have been hit by the German government's decision to withdraw from nuclear power following Fukushima, leading to a need for quick expansion of other generating capacity in Germany. The utilities have split loyalties in that they may only have limited investment funds and a variety of opportunities competing for that investment. The UK government needs to ensure that its subsidy regime is sufficiently comparable with the German equivalent such that utilities are incentivised to invest in the UK.

Practical issues

One of the main hurdles for Round 3 is likely to be cabling. There is insufficient network infrastructure in place, which could prevent or restrict grid connection. In addition, cabling costs will increase as the turbines are placed in deeper water, further offshore. The European Investment Bank is looking to address this issue and it is expected that the EIB will provide funding totalling £300m for six links to offshore wind farms in UK waters over the next few years.

Germany may well be better prepared for this issue than the UK, with almost 2,000km of cables currently on order for its developments, compared to just 300km for UK projects. However, this may not be significant as German developments will generally be further offshore and, so, will need more cabling. In addition, a greater proportion of the German orders are made up of High-Voltage Direct-Current cables, which require longer lead in times and, therefore, need to be ordered earlier than the UK equivalent.

Another major practical headache is maintenance of the wind turbines. The further offshore the turbines, the longer the response time in the event of a defect and the more energy lost. Government support is being provided for research into reducing maintenance costs. Out of 450 submissions, the Carbon Trust has shortlisted 13 concepts which aim to optimise maintenance of offshore turbines. It is to support these concepts as part of its Offshore Wind Accelerator programme.

Government subsidies/incentives

The government is taking an active interest in developing the offshore wind sector. Both EU and UK targets for production of renewable energy need to be met, including the EU target of renewable energy forming 20% of total generation by 2020. British Prime Minister, David Cameron, has urged overseas investors to support UK offshore development, as the UK government does not have sufficient funds to provide all the financial backing that Round 3 developments require. In addition, UK Secretary of State for Energy and Climate Change, Chris Huhne, has recently restated the goal of 18GW of offshore wind capacity by 2020.

A number of policy initiatives have recently been published that affect the offshore sector

Renewable Energy Roadmap

In July 2011 the UK government produced the UK Renewable Energy Roadmap, which outlines the government's strategy for meeting the renewable targets noted above. Offshore wind is seen as a key component of the strategy, which also notes as "priority actions" the needs to minimise investment risk and to assist access to finance. The government envisages publishing a new Roadmap annually, to ensure that its priorities remain current.

Renewable Obligation Certificates

In October 2011, the UK government published a consultation to review the levels of Renewable Obligation Certificates. According to this consultation, for offshore wind, the ROCs will be gradually reduced over the next few years from the current 2.0 to 1.9 in 2015-2016, and to 1.8 in 2016-2017.

The government is making this reduction to follow the cost of energy reduction, and to reduce costs to consumers. It justifies such reduction on the basis that it would still be above the minimum level they believe will be acceptable for investors. Reactions from the industry have been varied, but generally it is perceived that the reduction was not as bad as was initially anticipated. Although some have argued that the cut will lead to greater uncertainty for investors, if the levels are set until 2017 then this would provide greater certainty.

However, the UK Energy Minister, Charles Hendry, recently stated that the government is anticipating much more regular reviews and much more regular pricing changes. His view was

that this should not adversely affect investor confidence, as regular changes would make each change manageable and not dramatic. This is unlikely, however, to be the perception in the investment community.

The ROC figures have been proposed as part of a consultation, so, it is possible that the figures could be amended. The consultation is open for views from the industry until 12 January 2012.

Energy Market White Paper

The recent government White Paper establishes feed-in tariff support for all wind projects by way of a "Contract for Difference". This would give a fixed rate of return to developers, which is always welcome to investors, although the return is likely to be less than the ROC equivalent that it is replacing.

Please click here for a more detailed discussion on the Energy Market White Paper.

Electricity Market Reform

To facilitate the switch from fossil fuels to baseload nuclear and renewables, the government has identified potential capacity problems and has outlined plans for a "Capacity Market". Please click here for a more detailed discussion on the latest government position.

Other initiatives

The government is undertaking other initiatives from which it hopes the offshore industry will benefit. These include the government's new infrastructure plan, published in November 2011, establishing five Centres for Offshore Renewable Engineering ("COREs"). The five COREs are the Humber, Great Yarmouth and Lowestoft, Tyneside, Teesside and Sheerness.

It is hoped that, within these five COREs, the government will partner with local government to "ensure businesses looking to invest in manufacturing for the offshore renewables industry receive the most comprehensive support possible". This will include support for major investments under the Grants for Business Investment scheme in assisted areas of England.

Concluding remarks

As mentioned at the beginning of this alert, there are numerous obstacles that need to be overcome for Round 3 to be a success. Our view is that, as long as investors are sure that the

rates of return are sufficiently certain and rewarding, then all of the other obstacles can be overcome.

Wind turbine manufacturers are desperately keen for the work, but their requirements regarding order certainty are logical and need to be accommodated. Utilities will apply common, commercial, sense, and will only invest where it is commercially viable for them to do so. Due to the current financial climate and the risks involved in offshore development, funders cannot be dictated to and will need certainty of returns.

On this basis, the only movable position is the government's and everything else is dependent on that. The government has released a number of policy initiatives, but instability of return is a concern. Its stance is based on policy rather than commercial reality. Whilst the government may not want to over-incentivise investors, the market will drive the incentives. There is a real risk that, without certainty, Round 3 will not attain the scale that the government's Roadmap requires to meet the UK's energy needs

About Reed Smith

Reed Smith is a global relationship law firm with more than 1,600 lawyers in 23 offices throughout the United States, Europe, Asia and the Middle East.