

Round 3 Offshore Wind in the South West

Briefing Note December 2009

Round 3 Offshore Wind Background

The EU target to source 20% of Europe's energy from renewable sources by 2020 is an ambitious one. While all renewable energy technologies will have to be rapidly developed to achieve this target, energy from offshore wind is expected to provide the largest share towards the UK renewable electricity goals in the next decade.

Offshore wind in the UK has been developed in a number of leasing rounds. Rounds 1 & 2 have been leased to developers, and when complete they will contribute an additional 8 GW of renewable energy capacity.

The **Round 3** leasing round represents a step change in terms of the scale and acceleration of offshore wind construction, and aims to deliver an additional **25 GW** of electricity generating capacity.

There are 9 Round 3 "zones" the largest of which are in the southern North Sea. Two zones are in south west waters – **Bristol Channel Zone 8** in the Bristol Channel and **West of Wight Zone 7** off the coast of Dorset.



Note: The area occupied by the proposed wind farms is much smaller than the overall zone.

Announcement from the Crown Estate

The leasing negotiations for Round 3 have finished and the **Crown Estate** will be announcing the "**Zone Development Partner**" for each zone at a press conference at Exeter.

The announcement is a significant step and means that the zone developers have satisfied the Crown Estate that they have the capability to develop the zone to an agreed timetable, commercial terms and project plan. It does not mean that their plans have been given consent or planning permission – that will be the next stage.

Expected stakeholder engagement from the developer

In order to maintain the competitiveness of the leasing negotiation, potential developers were generally not permitted to engage with stakeholders. We expect the level of communication and engagement by Zone Development Partners with stakeholders and communities to increase significantly once the announcements have been made.

Size and Construction Timetable

The exact size, position and construction date for the proposed wind farms have not been announced yet. The outline plans which were made public in January 2009 suggested a 500 MW wind farm for the West of Wight, and 1500 MW in the Bristol Channel Zone. The earliest Round 3 offshore wind farms are expected to begin construction in late 2014, with the bulk of the programme complete by 2020.

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What happens next?

The awarding of the Zone Development Agreement allows the developer to begin the process of obtaining planning permission and the necessary consents to build the wind farm. As the wind farms are over 100 MW it is expected to be managed under the new Infrastructure Planning Commission process. http://infrastructure.independent.gov.uk/?page_id=202

The IPC process is intended to streamline planning, but still requires a full consultation and engagement with local authorities, statutory consultees, marine and public stakeholders.

Economic opportunities for Devon, Dorset and the South West

The two Round 3 wind farms represents a fantastic opportunity for Devon, Dorset and South West businesses. The construction phase of the development, which will last up to 5 years, will involve a massive investment. The Bristol channel zone, for example, is expected to cost in the region of £4 billion. During construction we would expect to see 200-400 on-shore jobs created and potentially a further 2000 people engaged in offshore activities. Of course not all these jobs will be within the South West region and a lot will depend on the construction and deployment ports used.

What can be done to help secure these economic opportunities?

It will be a competitive process, but all the Round 3 developers have expressed a desire to use UK and local businesses where possible. In the South West we have a large number of marine and marine engineering, supply chain and service companies that are in a position to offer competitive services to the wind farm developers. We also have some great ports within the region. Portland Port, for example, is well placed to offer construction facilities for the West of Wight zone, while there are other opportunities in the Taw and Torridge estuaries for the Bristol Channel zone.

The South West RDA is working with Regen SW, Devon and Dorset County Councils and with the relevant district / borough councils to ensure that the South West generates the maximum economic benefit from the Round 3 programme. We will be in discussion with the developers to understand their requirements and will be facilitating engagement between them and local businesses. We are currently developing a "prospectus" of business capabilities in the region with a view to hosting business engagement workshops with both the developers in the new year.

There will also be a major **Offshore Supply Chain Conference in Bristol on 9 March, 2010**. hosted by the South West RDA, Regen SW and the Crown Estate, which will provide an opportunity for businesses to meet the wind farm developers and their sub-contractors.

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Offshore Wind Numbers

Measure of capacity 1 GW (giga watt)= 1000 MW (mega watt) = 1000,000 KW (kilowatt).

Measure of energy output 1 GW/h = 1 GW produced over a 1 hour period

Output = Capacity * Time * Load Factor (Typically 35% for offshore wind)

The total Offshore Wind capacity planned for the UK is a little over 40 GW (40,000 MW)

- Round 1 & 2 plus extension – 9-10 GW ,
- Scottish Territorial Waters – 6.5 GW
- Round 3 (9 Zones) – 25 GW

The investment in offshore wind could reach £75 Billion by 2020 and employ 60,000 people (source BWEA and Crown Estate)

1 GW capacity of offshore wind with a **load factor** of 35%, would generate 3,060 GW/h of electricity, enough to provide electricity for around 500,000 typical homes.

The 25 GW planned as part of round 3 is equivalent to approximately 20 coal fired power stations

Dorset today has a renewable electricity capacity of approximately 12.6 MW, Devon has 33 MW see http://www.regensw.co.uk/downloads/RegenSW_301.pdf

Business Opportunities

Development Phase	Examples of Business Activities
Site Investigation and Planning (Between now and construction)	Environmental planning and research Surveys and survey vessels, sub-sea surveys Consultancy, legal and planning Project management, health and safety
Construction Phase Estimate £3m per MW i.e £1.5 billion West of Wight Over £4 billion Bristol Channel	Manufacturing and fabrication Construction port activities On-shore assembly and commissioning Foundation deployment, construction, Cable laying New vessels, installation, logistics and crew boats Training, accommodation and crew transfers
Operation and Maintenance Estimate £50-75k per year per MW Capacity	Offshore operations O&M port operations Mechanical and electrical engineering Component supply and manufacture Cable maintenance Crew boats and transfer Training and accommodation

For Examples of Supply Chain companies in the South West
http://www.regensw.co.uk/downloads/RegenSW_356.pdf