



Making plans for plain sailing offshore

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In July 2021 the UK government published updated requirements for the supply chain plan element of Contracts for Difference (CfD) auction round 4 (AR4). So, as we move forward and prepare for the next round, we must use experience from previous CfD auctions and share insights into key challenges for developers to consider, particularly in relation to the supply chain and the creation of new jobs in the offshore wind sector.



one of the highest operational capacity of offshore wind farms (more than 10 GW) in the world, along with China (which has the highest) and Germany. This has attracted major offshore wind developers to the UK and, in turn, this has helped to drive forward the growth of the UK supply chain.

Manufacturing facilities exist all across the UK providing a range of offshore products such as array and export cables, wind turbine components, and installation and service vessels. The following two case studies help illustrate the continued and future growth of the UK offshore supply chain.

Case study: Alexandra Dock, Hull

One of the most significant investments in the UK supply chain was seen in Hull's Alexandra Dock with the completion of an offshore wind turbine blade production and installation facility in 2017. The £310million Siemens Gamesa Renewable Energy facility currently employs more than 1,000 people. Following an investment of £186m, the blade manufacturing facility is to be doubled in size to allow for the manufacture of larger blades, and the upgrade is planned to be completed in 2023. The facility initially produced blades that were 75m in length. With the latest product offerings having blades larger than 100m, an upgrade to the plant will bring significant benefits to the UK economy, including the creation of at least 200 new jobs.

Hornsea Two, the world's largest offshore wind farm, will comprise 165 Siemens Gamesa 8.0-167 DD turbines in which the majority of the blades will be manufactured at Siemens' facility in Hull. Hornsea Two, which is being developed by Ørsted, is on track to be completed next year and will provide enough clean electricity to power more than 5.5 million homes. According to Ørsted, it has invested more than £10billion during the past ten years constructing its UK offshore wind farms. This has significantly boosted local economies through the creation of highly-skilled jobs, local facilities, and competitive, export-orientated local supply chains.

Case study: Forth Ports, Edinburgh

On 25 May 2021, Forth Ports announced ambitious proposals for the creation of Scotland's largest renewable energy hub on a 175-acre site at the Port of Leith.¹ This investment (estimated at £40m) is said to have the potential to provide up to 1,000 longer-term jobs and around 2,000 indirect jobs, and it would directly enhance the supply chain and manufacturing capabilities of the UK. The total area of the facility would be the equivalent to around 100 full-sized football pitches. The location is also ideal in relation to the planned developments in the North Sea and future projects which will

¹ <https://www.forthports.co.uk/latest-news/ambitious-renewable-energy-hub-plans-unveiled-for-the-port-of-leith/>

The UK government plans to grow UK offshore wind generation to 40 GW by 2030, which means that offshore wind would have the potential to power every home in the UK. Offshore wind is currently one of the fastest growing markets across the globe and having a robust and reliable supply chain is of great importance to enable the expansion of this sector.

With a rapidly growing number of large-scale projects looking to source turbines from a small number of manufacturers, there is

growing pressure on the industry to ensure the supply chain has the capacity to support the demand and future growth of the sector.

For example, key players such as Siemens Gamesa Renewable Energy, GE and Vestas dominate the offshore wind turbine market, and each one has introduced offshore turbines rated as high as 15 MW to their product line between 2020 and 2021.

The UK, being an island nation with a strong wind resource, is ideally situated as a leader in offshore wind energy. As such, the UK has

further enable the UK to increase its share of local content.

Enhancing the UK supply chain is not only the by-product of investment from key industry players looking to expand their markets and portfolios, but it is also the responsibility of the government to push forward the UK's renewable energy targets. As part of the UK government's industrial strategy, the offshore wind sector deal was created in 2019 to drive forward the transformation of offshore wind generation to enable it to be part of a low cost, low-carbon grid system and boost the productivity and competitiveness of the UK supply chain.² Figure 1 below shows an illustration of companies across the UK that are active in the offshore wind supply chain.

As part of the sector deal, the UK government has committed to providing £557 million for the future CfD auctions and policy support for offshore wind.

So how does the CfD auction system work and what is its role in supporting the supply?

The Contract for Difference (CfD) is the main support mechanism from the UK government for the promotion and growth of a low-carbon energy sector. It is a contract between a generator and the low carbon contracts company (LCCC) to provide a project with a stable income, while protecting consumers from paying increased costs when electricity prices are high. For a project with a generation capacity of more than 300 MW, to qualify for CfD, an approved supply chain plan (SCP) must be provided to the National Grid.

In May 2021 the UK government provided a response to a consultation on the changes to supply chain plans and the CfD contract³ for applicants wishing to enter a CfD allocation round for projects of 300 MW and more. The response included a decision to implement its proposal for an operational condition precedent (OCP) with the potential consequence of contract termination if a generator failed to provide a supply chain implementation report certificate. Additionally, the assessment of a developer's delivery of its supply chain commitments will be brought forward to shortly after a project's milestone delivery date (MDD) rather than at project commissioning, as previously suggested.

Developers must prove they will fulfil the obligations of the CfD by MDD and this includes the supply chain assessment, which is required shortly after. Therefore, the risk of having a CfD withdrawn due to a supply

² 'Industrial Strategy: Offshore Wind Sector Deal', HM Government, 2019.

³ 'Contracts for Difference for Low Carbon Electricity Generation: Government response to consultation of the changes to Supply Chain Plans and the CfD contract', Department for Business, Energy & Industrial Strategy, May 2021.

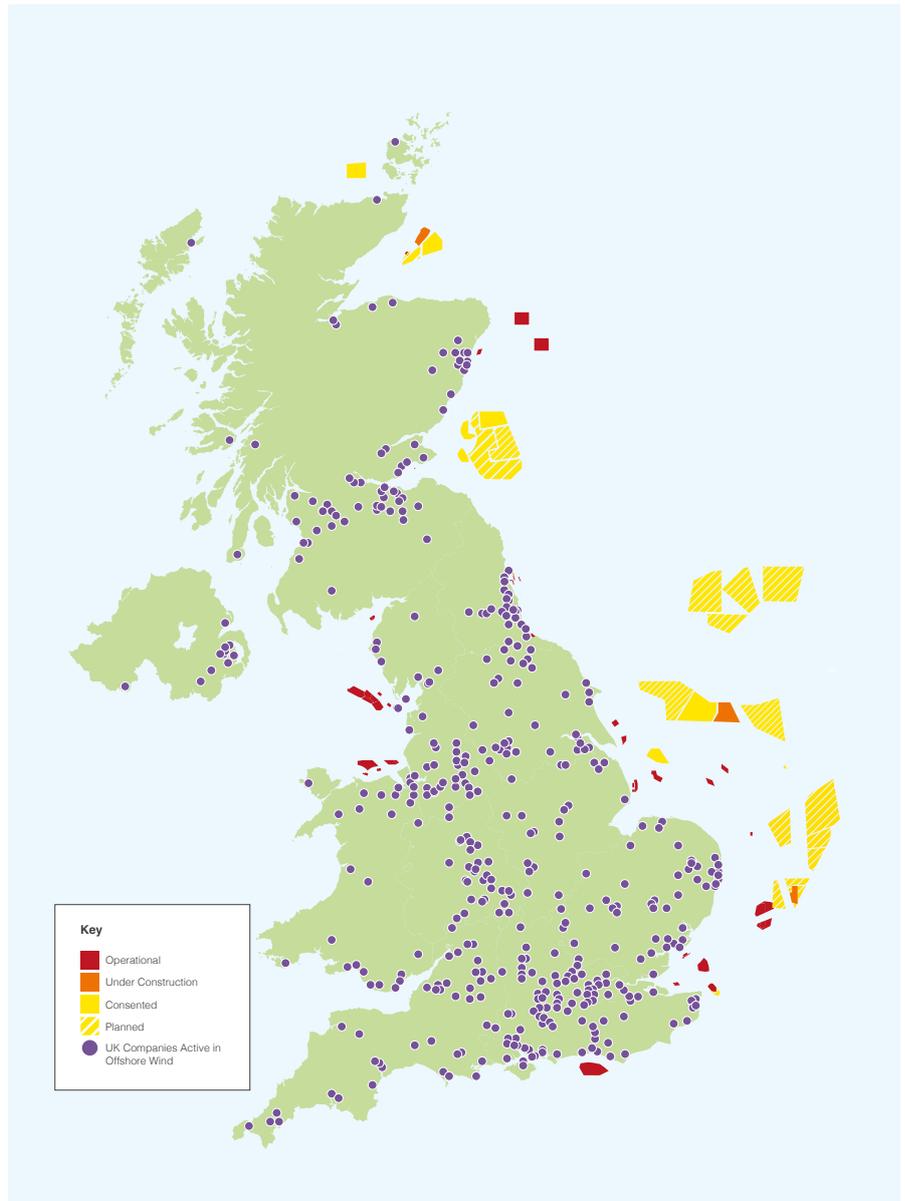


Figure 1: Locations of offshore wind supply chain companies in the UK (Source: "Industrial Strategy: Offshore Wind Sector Deal", HM Government, 2019)

chain plan that fails to pass the criteria at the point in which the project is operational is reduced. This consistency in government approach will bring significant comfort to developers looking to take part in future CfD auctions in the UK.

This approach to local content is a positive step, as it creates a degree of certainty for early stages of development and facilitates early-stage commitments as part of the planning process.

The Department for Business, Energy & Industrial Strategy (BEIS) provided the most recent publication of the SCP and questionnaire on 7 July 2021. The supply chain plan questionnaire assessment for allocation round 4 (AR4) is based on four sections. These are green growth, infrastructure, innovation, and skills.

Each section is worth 500 points, and applicants that achieve a score of less than 50% in any of the sections are unlikely to pass.

Green growth

The green growth criteria relate to reaching net zero and the contribution to levelling up the UK economy by strengthening supply chains through impactful investments that expand capability and capacity, but also embed sustainable business practices. The approach to procurement should also promote a diversified and confident supply chain with a willingness to award contracts to new entrants. This will help build confidence in the wider supply chain.

The changes in the SCP criteria for AR4 will help build on the foundations that have been established in previous rounds and will encourage new players into the supply chain,

‘Having local outreach to schools and other education centres as well as providing apprenticeships will help promote long-term education and skills training, which will ultimately support individuals in the sector.’

as the scoring process carries a significant portion of points for promoting new entrants. This supports the Just Transition principles,⁴ most notably by creating ‘opportunities to develop resource efficient and sustainable economic approaches’.

Innovation

The innovation criteria are based on innovative technologies, ideas and process that can reduce the cost of projects and overcoming technical challenges. It is important to demonstrate long-term stability and resilience of the supply chain while assigning sufficient resources to R&D, with specific consideration for small and medium enterprises (SMEs), in the development of innovative and next-generation technology and techniques, with a willingness to be a first mover in trialling these in projects.

This is a positive step in enabling new businesses to expand their reach into the offshore wind sector and provide the next generation of technology and experts that might not have been able to compete with more established players.

Infrastructure

Investment in related and supporting industries forms one of the tenets of Porter’s Diamond, the measure of competitiveness of a potential market. This element of the SCP is aimed at increasing investment in infrastructure and increasing the capabilities and competitiveness of local supply chains to drive down costs and risks. This category was not part of the previous AR3 SCP criteria and, as such, is an important addition to ensure proposed projects will have the necessary

4 <https://www.gov.scot/groups/just-transition-commission/>

supporting infrastructure in place to be delivered successfully.

This is of particular importance when considering floating offshore wind, which is identified as a Pot 2 technology in CfD AR4⁵ for which several projects are expected to apply.

Skills

Again, in accordance with the Just Transition principles, this category is aimed ensuring that a skilled workforce and necessary training will be provided through the creation of long-term jobs and commitment to education and investment while also promoting diversity and inclusion. Having local outreach to schools and other education centres as well as providing apprenticeships will help promote long-term education and skills training, which will ultimately support individuals in the sector. More than half of the available points in this category are awarded for providing jobs and opportunities for apprenticeships, trainees and scholarships.

Timetable and process for CfD allocation round 4:

- Supply chain plan application window: 27th September to 3rd October 2021.
- CfD application window: 13th December 2021 to 14th January 2022.*
- Sealed bid window: 9th to 29th March 2022 (shortest timeline) or 4th May to 15th June 2022 (longest timeline).
- CfD notification to successful applicants: 22nd to 25th April 2022 (shortest timeline)

5 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/937634/cfd-proposed-amendments-scheme-2020-ar4-government-response.pdf

or 7th to 8th July 2022 (longest timeline).

*The government has extended the time for CfD applications as the window falls across the festive holiday period.

With the deadlines for CfD allocation round 4 rapidly approaching, the push for demonstrating commitment to local content and the net zero target is critical for players looking to secure CfD on upcoming projects. The UK has already seen impressive growth in its local supply chain during the past few years and has set ambitious targets to continue to pave the way as a global leader in offshore wind.

About Natural Power

Natural Power is an independent consultancy and service provider that supports a global client base in the effective delivery of a wide range of renewable projects including onshore wind, solar, renewable heat, energy storage and offshore technologies. It has a global reach, employing more than 400 staff across 14 international offices. Its experience extends across all phases of the project lifecycle from initial feasibility, through construction to operations and throughout all stages of the transaction cycle.

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