The voice of the energy industry

Energy UK Response: Crown Estate call for views on accelerating the development of floating wind in the UK

Position Paper

About Energy UK

Energy UK is the trade association for the energy industry with over 100 members spanning every aspect of the energy sector – from established FTSE 100 companies, right through to new, growing suppliers and generators, which now make up over half of our membership.

We represent the diverse nature of the UK's energy industry with our members delivering over 80% of both the UK's power generation and energy supply for the 28 million UK homes as well as businesses.

The energy industry invests £13bn annually, delivers £31bn in gross value added on top of the £95bn in economic activity through its supply chain and interaction with other sectors, and supports 738,000 jobs in every corner of the country.

Introduction

Energy UK welcomes the opportunity to respond to The Crown Estate's (TCE) call for views on accelerating the development of floating offshore wind (FOW) in the UK. It's positive to see TCE recognise the need to accelerate deployment of FOW given its importance in the Net Zero challenge, as well as the supply chain benefits and export opportunities that will arise from early capitalisation of this emerging market.

On 6 October the Prime Minister announced a new target of 1GW FOW in UK waters by 2030. Industry welcomed this target and is keen to work with TCE on the design of an appropriate early leasing process to ensure at-scale deployment of FOW in the next decade. Energy UK expects FOW deployment to ramp up significantly throughout the 2030s due to the larger availability of deeper water sites throughout GB. However, the global FOW market is currently in a nascent stage with an expected cumulative installed capacity at the end of 2020 of 125MW.[1] Two-thirds of this capacity is located in UK waters, but with other countries recognising the potential of this technology, it is crucial that government moves quickly to establish the UK as a global-leader, and ensure that the associated economic benefits are realised.

Should you have any questions regarding this consultation response then please do not hesitate to get in touch via the details below.

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[1] https://prod-drupal-files.storage.googleapis.com/documents/resource/public/FWJIP_Phase_2_Summary_Report_0.pdf

Response to Questions

1. Please provide views on the scale of opportunity for floating wind in the UK and the likely pipeline of projects between now and 2030.

Overarching offshore wind ambition

It is a sign of the speed of development and innovation in the offshore wind sector that the 2019 Committee on Climate Change (CCC) recommendation of 'up to 75GW of offshore wind by 2050' has now been updated, as part of the Sixth Carbon Budget Advice, to 'up to 140GW by 2050'.[2][3] Energy UK supports this level of ambition and urges TCE to align its processes with this level of ambition and facilitate growth in the sector.

UK FOW pipeline

In addition to fixed offshore wind, FOW has the greatest deployment potential of UK marine energy technologies through the 2030s. Independent analysis undertaken by the Carbon Trust suggests global FOW estimated deployment of up to 10.7GW by 2030 and 70GW by 2040.[4] On a UK level, the study estimates deployment of 1.1GW and 7.4GW by 2030 and 2040 respectively.

Energy UK believes the 2030 forecast to be a sensible estimate and we would place minimum 2030 deployment ambition in the range of 1-2GW, constrained primarily by consenting and project development timelines, rather than technological readiness. We do, however, believe the 2040 estimate is on the modest side and should be regarded as the absolute minimum ambition. It is worth noting that the Carbon Trust based this estimate on a 75GW 2050 trajectory for offshore wind, as suggested by the CCC. We have already noted that the CCC has since updated it's guidance for offshore wind ambition, advising up to 140GW by 2050. Aligning with a 140GW ambition could mean a floating wind ambition of up to double that suggested by the Carbon Trust and possibly more. Energy UK believes that TCE should ensure that leasing during the 2020s is compatible with the expected need for full-scale commercial projects (1.5GW+) from 2030 onwards.

International Competition

A host of other countries are currently exploring opportunities for FOW. The Carbon trust identifies France, South Korea, Portugal, the USA, and Japan as lead markets, with Ireland, Norway, Spain, Taiwan, the Aegean Sea and China as follower markets.[5] It is worth noting that whilst the UK currently accounts for 64% of installed FOW capacity across the globe, under current policy frameworks this is expected to fall to around 10% by the mid-2020s due to accelerated deployment in other nations such as South Korea and France.[6] This should provide incentive for TCE to work closely with industry to identify the most appropriate leasing arrangements for accelerated delivery through the late 2020s and into the early 2030s.

[2] CCC. Net Zero Report: https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-Technical-report-CCC.pdf
[3] CCC. Policies for the Sixth Carbon Budget and Net Zero: https://www.theccc.org.uk/wp-content/uploads/2020/12/Policies-for-the-Sixth-Carbon-Budget-and-Net-Zero.pdf
[4] Carbon Trust. Floating Wind Joint Industry Project Phase II Summary Report https://prod-drupal-files.storage.googleapis.com/documents/resource/public/FWJIP_Phase_2_Summary_Report_0.pdf - Page 1
[5] Carbon Trust. Floating Wind Joint Industry Project Phase II Summary Report https://prod-drupal-files.storage.googleapis.com/documents/resource/public/FWJIP_Phase_2_Summary_Report_0.pdf - Page 26
[6] Carbon Trust. Floating Wind Joint Industry Project Phase II Summary Report https://prod-drupal-files.storage.googleapis.com/documents/resource/public/FWJIP_Phase_2_Summary_Report_0.pdf - Page 22

2. Please provide views on how rights to develop floating offshore wind could be made available in a way that accelerates deployment and helps build a strong UK supply chain.

An early FOW leasing round, and transparency on future round timing and frequency are key

Energy UK believes it is important to have a dedicated FOW leasing round as soon as possible, as this will maximise progress in developing FOW in the UK. Without early FOW deployment in the UK, it is likely that the other nations mentioned above, that are also progressing FOW, may well move ahead of the UK. Following initial near-term leasing for FOW, transparency of the pathway of FOW leasing is key to provide a signal to developers/investors that the UK is ready to deploy near-term and at scale. The specific frequency of future FOW leasing rounds is less important than a clear pathway for the sector.

Scale of projects

Given the limited scale of the current UK supply chain and the aim of building this, it is important to match the scale of the next leasing round to the realistic UK supply chain capacity in the mid to late-2020s. It is important that the floating wind sector of the mid to late-2020s is not limited by the state of the supply chain in 2020-25. We expect considerable investment in the UK over this period in areas relevant to/or specific to floating wind if the market signals are strong enough. This points to the role of TCE in signalling the UK's future floating wind intent through the scale of lease areas awarded.

In addition, to maximise progress, it is important to allow developers flexibility in selecting the appropriate project size. Ideally a FOW round should allow flexibility in the size of project that can come forward. A FOW round should accommodate developers that are able to deploy at commercial scale, as well as supporting continued technological innovation through demonstration scale projects (potentially through the continuation of the testing & demonstration leasing opportunity). Experience in the fixed foundation rounds is that larger projects (500MW+) are crucial to building the UK supply chain

Basis of Award of Leases for FOW

Energy UK appreciates that there are different routes to awarding early FOW leases. Regardless of the approach selected, we urge TCE to focus on absolute transparency and fairness as allocation principles. It is important that the allocation process is not designed in a way that simply allows incumbents to dominate the early UK FOW market. It is clear from experience with the fixed offshore wind market that introducing fair competition in the nascent stages of sector development, leads to a healthy pipeline of projects in future and therefore a position of strength in the global market.

Given the relative immaturity of the FOW sector, there still exists the opportunity for technological innovation and we would like to ensure that this is not limited by focusing purely on commercial scale projects based on existing technology. Therefore, we believe that the testing and demonstration leasing opportunity should be maintained, noting that this approach would allow sector ambition and technological advancement to be progressed in harmony.

3. Please provide views on the likely impact of floating wind development on spatial and environmental considerations given an increasingly busy marine environment.

Positioning of early FOW sites

FOW opens up a much wider range of potential project locations and therefore, if correctly managed, should have limited impact on an increasingly busy marine environment. Energy UK suggests that TCE maximises the geographical spread of potential sites to help reduce the possibility of marine congestion. We also recommend that TCE is mindful that any new FOW sites are positioned to avoid interactions that would delay the Habitats Regulations Assessment for Leasing Round 4.

We have established earlier in this response that speed of delivery of UK FOW projects is important in an increasingly competitive international market. Therefore, we would suggest that TCE considers sites with the lowest consent risk for early FOW leasing to encourage speedy project development. Energy UK believes that site selection should be developer-led, as far as possible, and therefore encourages TCE to administer the largest possible target areas for leases, to maximise flexibility for developers.

Energy UK recognises that many potential pitfalls involved in the early expansion of any new sector and therefore encourages TCE to maintain an ongoing dialogue with industry through the process of leasing area selection. We are keen to work with TCE where appropriate to provide detailed industry input on the benefits and drawbacks of potential FOW sites.

Electricity Transmission Planning

Electricity transmission capabilities is another key consideration in the process of selecting future FOW sites. Energy UK has identified a number of areas, particularly Wales and SW England, where the existing grid infrastructure is not appropriate for GW scale projects. FOW potential in the Celtic Sea region is significant, but networks in the region not ready for GW scale projects. There is a misalignment with current work being undertaken as part of the Offshore Co-ordination Project, which doesn't consider capacity coming in from Celtic Sea. Energy UK encourages TCE to include BEIS, Ofgem and National Grid in the process of identifying future FOW sites, specifically with a view to ensuring the appropriate grid planning is in place.