New Offshore Wind Leasing
Market Engagement Event
Q&A Summary

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<th>Meeting</th>
<th>New Offshore Wind Leasing- Market Engagement Event</th>
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<tr>
<td>Date</td>
<td>Monday 26 November 2018</td>
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<td>Venue</td>
<td>11 Cavendish Square, London W1G 0AN</td>
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<tr>
<td>Chair</td>
<td>Clare Collard, Head of Public Affairs and Community, The Crown Estate</td>
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</tbody>
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| Presenters               | Huub den Rooijen, Director of Energy, Minerals & Infrastructure, The Crown Estate  
                          | Yuen Cheung, Head of Offshore Wind Policy, BEIS  
                          | Heledd Cressy, Offshore, Fossil Fuels and Transmission Energy Policy, Welsh Government  
                          | Will Apps, Head of Energy Development, The Crown Estate  
                          | Jonny Boston, Business Development Manager, The Crown Estate  
                          | Mark Hazleton, Optimisation Manager, The Crown Estate  
                          | Helen Elphick, Senior Development Manager, The Crown Estate  
                          | Ben Barton, Senior Commercial Manager, The Crown Estate |

In November 2017 The Crown Estate announced that we will be working with the offshore wind sector and stakeholders over the course of 2018 to consider making new seabed rights available to offshore wind developers.

On 26 November 2018 we held an engagement event for UK and international market representatives and advisers. At the event we provided more detailed, refined information on our proposals to organisations who may wish to compete for seabed rights via the potential new leasing process in 2019.

The slides from our presentation are available to download from our website together with this document, which provides a summary of the questions that were asked, and answers that were given, during the event.

The presentation and this Q&A summary reflect The Crown Estate’s thinking at that moment in time (26 November 2018). All information provided is therefore subject to change.
SESSION 1: Summary of Introduction, Policy & Portfolio context Q&A session with Yuen Cheung (BEIS), Heledd Cressey (Welsh Government), Huub den Rooijen (Director of Energy, Minerals and Infrastructure, The Crown Estate) and Will Apps (Head of Energy Development, The Crown Estate)

Q1: Given the sobering IPCC report on global warming and climate change, do you think an outcome from this will be a desire to sprint to reach offshore wind deployment targets more quickly than currently planned? If this is the government's response, will The Crown Estate reflect this in terms of capacity and open areas in this next leasing round?

Answer from The Crown Estate: It’s a question of scale and urgency. We have approximately 12 years to act on CO₂ emissions; a lot of us are on the same page. The proposed scale of Round 4 has been shaped in light of the urgency of the climate change agenda, balanced with the need for the sector to progress and grow in a way which is sustainable.

The UK’s offshore wind capacity has doubled in the last five years and will double again in the next five years. So it’s vital we engage with all offshore industry players. We have shaped Round 4 plans through substantial engagement, and we believe our proposals strike the right balance.

Q2: Can the UK increase its share of the export market?

Answer from BEIS: We recognise that the amount of exports coming out of the UK could be greater and offshore wind is becoming global, which is why we are working with the industry on the Sector Deal. Through the Sector Deal we’ll look to help small and medium businesses access the global opportunities that are available.

Q3: We’re looking at floating wind, could you envisage an interim arrangement for the technology for more than 100 MW test and demonstration - more like 300 to 500 MW - to help drive down cost which is key? Is there an opportunity for this outside of a leasing round?

Answer from The Crown Estate: We’ve been talking with and listening to the market on the readiness of floating wind and looked carefully at the need to provide rights beyond the current opening for innovation and demonstration. We have had to ask: is floating wind technology ready for Round 4? We want to ensure we enable projects to come forward in this round that have the greatest chance of delivery and complementing a robust portfolio.

Based upon our engagement, we are not sufficiently confident that the market will be ready in terms of scale or timeframe to invest in project development for commercial floating wind sites in 2020/21, the context for Round 4.
Q4: Will the sites awarded that are successful from the Aggregates and Offshore Wind Extensions leasing processes be known prior to the ITT (Invitation to Tender) process getting underway?

Answer from The Crown Estate: Yes. The Aggregates process is due to conclude early next year, ahead of the proposed ITT for Round 4.

Details of Offshore Wind 2017 Extensions are already in the public domain, and the plan-level Habitats Regulations Assessment (HRA) will be completed in the first half of 2019. We’re expecting up to 3.4GW of new capacity from this, depending on what comes through the HRA process.

Q5: The expected capacity from Round 4 is around 7GW: is this including or in addition to Extensions, and what is the expected capacity for those?

Answer from The Crown Estate: The 7GW proposed from Round 4 is in addition to the 3.4GW of 2017 Extensions that were recently applied for. We have provisionally approved all eight extension projects, but that is subject to those passing through the current plan-level HRA process.

Q6: What do you mean by strategic initiatives in terms of what will be provided to help us better understand the seabed?

Answer from The Crown Estate: The Crown Estate has conducted a significant amount of analysis of resource and constraints to characterise the seabed we manage. This has been made available in draft form on our website and will be finalised in advance of the leasing process. This work has been the focus of our engagement with statutory stakeholders to date and will continue to develop through this second stage of engagement with wider stakeholders.

In terms of other data sources, significant amounts of detailed technical data such as bathymetry and geophysical surveys that have been collected to support previous development activities are available through the Marine Data Exchange.

Q7: Can you tell us about the work taking place regarding the report commissioned by the Welsh Government and if this will address transmission, cost and local onshore engagement issues in Wales?

Answer from Welsh Government: The Carbon Trust has been working on our behalf to produce a plan, the Executive Summary of which was published last week looking at challenges and benefits of offshore wind in Wales. The full report will be released shortly, but regarding grid constraints in Wales, no real concerns were highlighted in the report, particularly in light of National Grid’s planned North Wales Connection Project in that area.

1 http://marinedataexchange.co.uk/
Q8: What is the appetite of the UK to support floating wind? Is there the feeling that the UK has ‘done its bit’ on green energy and fixed offshore wind, and does not need to support floating technology?

Answer from BEIS: We don’t take the view that the UK has ‘done its bit’, and we’re interested in both current and emerging technologies. The balance is to how it fits in the UK’s portfolio, as we could quadruple the UK’s offshore wind capacity with fixed foundation turbines. But we continue to listen to and engage with developers. The Crown Estate through its test and demonstration programme allows opportunities.

Q9: How transparent will the projects to further understand the seabed be; and how will this impact the timescale for environmental work to support consent applications?

Answer from The Crown Estate: The Crown Estate will be undertaking studies to supplement the available evidence base to support further refinement of the regions, as we will explain later today. We would intend for these studies to be completed in advance of the launch of Round 4, and that they would support final characterisation and refinement reports.

There is also intention for some strategic work to be undertaken on the back of the Offshore Wind Sector Deal; for example, how to overcome challenges such as military radar mitigation. These may help provide headroom for future projects.

Q10: Have you taken into account the major up-front spend that developers have to make, and the fact that some sites are more expensive because of soil conditions, supply chains etc? The last round was risky and some fell away.

Answer from The Crown Estate: This is a big part of the challenge we’ve been grappling with for a planned Round 4. We considered a shift to the ‘low-risk model’ used in other countries, where all the site work is undertaken centrally, and a pre-consented site is offered up for auction. However, this would be a significant shift in the policy environment in the UK, which is currently working well for developers and investors.

The work we’ve been doing and will cover here today will talk to how we de-risk development to a point, while still providing scope for market creativity.

Our engagement with the market has shown support for developers to have more freedom to choose sites and develop projects, so we are responding within our remit to provide data that informs this process, which we hope offers an attractive balance.

SESSION 2: Summary of Feedback & Region refinement Q&A session with Jonny Boston (Business Development Manager) and Mark Hazelton (Optimisation Manager).

Q11: What has been your rationale for removing regions based on constraints interacting with the characterisation areas and not the wider region? For example,
some of the regions removed on visual grounds have parts of the wider region that are a significant distance from the coast.

**Answer from The Crown Estate:** Our view is that the characterisation areas represent the best development potential in the proposed Round 4 process. In regions that have been removed based on visual constraints, generally both the characterisation area and the wider region are in close proximity to shore. Where this is not the case, combinations with MOD practice and exercise areas remove most of the wider regions e.g. Cardigan Bay.

Factors impacting our decisions on regional refinement and summaries of constraints in each area are included in the *Regions Refinement Report* which is published on the Marine Data Exchange².

**Q12:** The regions would seem to suggest investing in areas where there are already existing projects. How have you considered other factors such as balancing the grid, higher wind speeds in the west, and economic development aspects in more deprived areas such as Cornwall?

**Answer from The Crown Estate:** We have commissioned a study from National Grid, looking at a strategic level at how capacity through this new leasing may be accommodated by grid infrastructure around the coast. This was in the context of system level balancing costs and concluded that, as you would expect, new offshore wind placed in study areas in the south of the country resulted in cost savings to consumers in relative terms. This report is published on the Marine Data Exchange.

The economic benefits of the offshore wind industry are important with useful work being completed in support of the Sector Deal. Our role is to enable investment in the seabed and, as such, we have designed a commercial process to bring the best projects forward.

**Q13:** How have buffers with existing wind farms been considered in characterisation work?

**Answer from The Crown Estate:** Buffer distances around existing windfarms have not been included as part of the resource and constraints assessment however, the Tender Parameter rules of the ITT process incorporate the appropriate requirements in relation to existing projects (refer to proposed rule four in the *slide deck* from the event).

**Q14:** Why has the Irish Sea area re-appeared, having been the location for a project at Round 3 that was ultimately dropped by the developer?

**Answer from The Crown Estate:** Our work on Round 4 has been approached with a fresh view of resource and constraints to inform a consistent assessment of the offshore wind resource in English, Welsh and Northern Irish waters.

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² All reports have been published on the Marine Data Exchange here: http://marinedataexchange.co.uk/announcements/2018/updated-proposals-for-round-4.aspx
We are aware that sites within the North Wales region were investigated and dropped under a previous process; however this is also cognisant of the different commercial, technological and policy conditions at that time and with different requirements through the leasing process. Based on our analysis, there appears to be good resource in this region.

Q15: Can you provide a steer on which, if any, of the four regions under further consideration may come forward and when?

**Answer from The Crown Estate:** A decision on those four regions will be made ahead of the launch of a leasing process, currently proposed for Spring 2019. We are continuing to engage with stakeholders and build our evidence base to inform this decision.

Q16: How have you worked with developers and statutory bodies to decide which regions come forward, and how do you want to proceed with considering the remaining regions?

**Answer from The Crown Estate:** It is fair to say that the region refinement process has been one of the most challenging elements of the leasing design to implement, given the complexity of constraint issues and the number of competing interests at play.

Our approach is to include as many regions as possible to offer flexibility and support a dynamic market; however we have concluded that at this stage a number of regions carry sufficient levels of constraint or uncertainty to warrant being excluded from the process, based on our work and feedback from statutory bodies.

We have built our evidence base in relation to resource and constraints in close partnership with statutory stakeholders including planning authorities. Our process is to engage with the market and stakeholders to listen and continue to build our evidence base, in order to inform a final decision prior to launch.

**SESSION 3: Summary of Tender Process Design and Agreement for Lease**

**Q&A session with Helen Elphick (Senior Development Manager), Ben Barton (Senior Commercial Manager) and Jonny Boston (Business Development Manager)**

Q17: Do all the technical Pre-Qualification Questionnaire (PQQ) requirements apply to consultants?

**Answer from The Crown Estate:** No. We propose to include an option for a consultancy which is not a shareholder to be contracted by the bidding entity as a Development Services Provider, and in that case their experience can be used to satisfy the environmental criterion only.

The other technical PQQ criteria would still need to be satisfied by a Principal Shareholder to demonstrate they have the relevant experience (e.g. of going through the grid or consenting process) and can provide that expertise to the consortium.
Q18: Is it people or organisations that have to qualify their expertise?

Answer from The Crown Estate: We’ve considered this carefully, and our proposed approach is that it is organisations that would have to qualify at the PQQ stage, based on organisational experience.

Q19: Do applicants need to carry third party experience through to consent?

Answer from The Crown Estate: If a bidder wants to change its third-party expert (Development Services Provider) after award, there will be a process in the Agreement for Lease for The Crown Estate to consider an acceptable replacement that also meets the PQQ and ITT requirements, to provide bidders some flexibility.

Q20: Is the 7GW capacity figure a hard cap/ceiling? If so, how will you select projects to reach that?

Answer from The Crown Estate: Our proposed approach is to identify enough projects that satisfy the ITT threshold criteria and which rank highest in the commercial assessment, up to and including the last one that takes us to or above the 7GW threshold, rather than it being a ceiling. The project that takes us to or above the 7GW threshold is therefore the last one that will be taken forward.

Q21: What scope is there for iteration of overlapping sites i.e. if two sites overlap slightly, will there be discussions to enable sites to move?

Answer from The Crown Estate: We will allow bidders to submit a number of bids to mitigate for anticipated overlaps. In the case of an overlap there will be one successful applicant based on the highest option fee value. We do not plan to allow applicants to move.

Q22: No more than 50 per cent of capacity would be awarded to one bidding area – but if you didn’t get enough capacity from other bidding areas, would you consider increasing that?

Answer from The Crown Estate: Our current view is that there's enough resource and appetite out there that we are not likely to see this scenario, although we will continue to review this in light of which regions ultimately remain open and are offered. We will set out clear guidance on this in the tender process and welcome any thoughts in the meantime.

Q23: When there were overlapping projects at Round 1, The Crown Estate acted as ‘marriage broker’ between developers and other interested parties. Will you be doing the same at Round 4?

Answer from The Crown Estate: There is much more information about the seabed available now compared to the time of Round 1, and bidders will be expected to bid for the appropriate size of projects that fit a location based on the available data.
To keep the procurement process clean, we would not act as a broker between interested parties in the same region.

Q24: Will there be a ‘reserve list’ of projects for those that can’t be awarded because of HRA considerations, such as the foraging distances of particular species?

Answer from The Crown Estate: This was something we considered in the early days of our current HRA for 2017 Extension projects. We have not yet concluded how this process will work for Round 4. We recognise the challenges around this and will set out our proposals in due course.

Q25: I’m concerned about the HRA process, during which a plan-level HRA would review all proposals, identify mitigations, and projects will drop out as a result.

Answer from The Crown Estate: That is not our aspiration, and a project falling away entirely is a sub-optimal outcome for everyone involved. We believe the design of the process will minimise that risk, and this has been a key consideration in the 7GW total capacity limit, and the bidding area capacity limits. There are also potential mitigations that could be applied to all or some of the projects in the plan; for example, a change to hub height can make a difference to the impact of a project on some species. We will continue to work on refining this important area prior to finalising our proposals.

Q26: Will the applicant have the opportunity to review the HRA process?

Answer from The Crown Estate: We are undergoing such a process for the 2017 Extensions round at the moment, and this is the first plan-level HRA that The Crown Estate has undertaken for some time. We are keen to enable opportunities for project developers to feed in, subject to ensuring that we maintain the integrity of the process. We would always need to undertake a plan-level HRA, given our statutory duties; the sequencing we have set out goes hand-in-hand with allowing developers to select their own sites.

It is worth noting that one of the key differences between this and previous plan-level HRAs is the level of constraint out there, which is much higher since Round 3, and we’re closer to potential environmental thresholds than ever before.

We will undertake some frontloading work on issues that have the potential to impact the HRA to reduce the evidence gaps, to help de-risk this. We believe that what’s most important for developers is clarity, including who will ultimately take the risk in relation to HRA. Ultimately offshore wind is a long-term programme, and we, the industry and stakeholders, need to work together to tackle the key risks facing the sector, as everyone has a part to play.

Q27: On the project densities going from 3 MW/km² to 5-8 MW/km², by my calculations the optimum would seem to be 4 MW/km² after which the wakes losses become expensive. Could you explain how your figures have been calculated?
**Answer from The Crown Estate:** We have undertaken modelling work and referred to existing real-life project examples from the UK and Europe, looking at factors including wake effects and array cables losses. The densities we are proposing seek to find a balance between sensibly allocating and using the seabed, whilst not adversely affecting project economics. We would welcome the industry’s feedback on this issue.

**Q28:** Could you provide more information on overlapping project proposals, and whether it will be the higher commercial value that is awarded rights?

**Answer from The Crown Estate:** Where two bids which have passed the financial and technical criteria, as well as other tender rules, overlap it will be the project offering the higher value of option fee measured in £/MW that will be successful.

If these are equal, then total value of £/MW times the overall project capacity will be used as a tie breaker. If this is also the same then we will look at £/km². To clarify, the option fee is an up-front payment for entering into Agreement for Lease (AfL).

**Q29:** Do you have a fall-back plan to compensate for projects that fail or are handed back?

**Answer from The Crown Estate:** We have taken partial and full project attrition into account when sizing this process. We'd obviously like to see all projects come through but looking at previous rounds around 20 per cent of capacity awarded under AfL hasn’t gone into operation. We have designed this process at such a scale that it is repeatable. Any shortfalls in the future portfolio can therefore be addressed through potential subsequent leasing rounds.

**Q30:** Given the competitive nature of the options fee, will rent be standardised?

**Answer from The Crown Estate:** Rental rates (two per cent of gross revenue during operation) will be the same across all projects, only the option fee will be competitive.

**Q31:** You mentioned the minimum lease rent is still to be assessed - what will this assessment look like?

**Answer from The Crown Estate:** We are still considering this, and will give further detail at the PQQ stage.

**Q32:** Regarding experience coming from the organisation, they may be a project company and no longer exist, or may have been a subsidiary or a joint venture (JV). How would parties for such organisations get through?

**Answer from The Crown Estate:** We are looking for suitable experience from a group company that may have been a shareholder or part of a project vehicle. For most criteria, e.g. consent, grid connection and project management, the consortium member that is demonstrating that experience needs to have been the largest shareholder of that project vehicle.
We have provided a glossary of definitions associated with our current proposals, and final definitions would be confirmed at the start of the leasing process. Our current objective is to provide a sense of the framework required so that potential participants can provide us with their feedback and have early conversations regarding partnering etc.

**Q33: Regarding environmental studies, will there be one on cumulative effects for marine mammals especially now that the regions have opened up to greater water depths (noise impacts have a significantly wider field of impact in deeper water)?**

**Answer from The Crown Estate:** Feedback was provided by statutory stakeholders giving more information on the likely management measures for the Harbour Porpoise cSACs. This has been reflected in the characterisation documents. Work has also been completed through the DEFRA project Marine Ecosystems Research Program (MERP)\(^3\) which has looked at marine mammal density mapping. This data will be signposted as evidence that developers should utilise.

**Q34: With a 60-year lease, how will the Plan-Level HRA take account of potential repowering?**

**Answer from The Crown Estate:** The plan-level HRA would not need to take account of multiple project lifecycles. Any repowering of individual projects would be subject to a new application for statutory consent, at which point a project level HRA would be required.

**ENDS**

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\(^3\) [http://www.marine-ecosystems.org.uk/Research_outcomes/Top_predators](http://www.marine-ecosystems.org.uk/Research_outcomes/Top_predators)