

## Ofgem Consultation on our Minded-to Decision on Anticipatory Investment and Implementation of Policy Changes

### Introduction & Background

Wave Hub Development Services Ltd, trading as Celtic Sea Power (CSP) are a 100% subsidiary of Cornwall Council with funding from the Welsh European Funding Office (WEFO) and the Swansea Bay City Deal (SBCD) to develop 'The Pembrokeshire Demonstration Zone' (PDZ).

Celtic Sea Power is the **seabed lease holder of the PDZ**, an area located c.15km offshore from the South Pembrokeshire coastline of Wales and comprising a 90km<sup>2</sup> area leased from The Crown Estate (TCE) for a period of 45 years (see figure 1).

The PDZ is part of the **Pembroke Dock Marine** programme whose sponsor is Pembrokeshire County Council and project delivery partners include Port of Milford Haven, Offshore Renewable Energy (ORE) Catapult and Marine Energy Wales.

The project has secured funding up to the end of June 2023 to develop the PDZ and inform the next stage of the development pathway, which will target consent management and condition discharge, detailed design, and securing financial investment for the capital build.

(<https://www.swanseabaycitydeal.wales/projects/pembroke-dock-marine/>)



Figure 1 – PDZ Lease Area

In response to changes in the marine offshore renewables market, including the rapid emergence of Floating Offshore Wind projects in the region, the project has been re-defined from its original purpose, a site for demonstrating multiple wave and tidal energy technologies, into a site for the development of one or two **Multi-connection Offshore Substations (MOS)**. These MOS's are aligned with the **Shared Asset** concept referred to in this Consultation and aim to be capable of accommodating approximately 1GW of generation (Demonstration and Pre-commercial Floating Wind) in a stepped approach as the market matures and The Crown Estate's 4GW of Floating Wind by 2035 aspirations are realised.

The current thinking is that the MOS locations will be within the black hatched area In Figure 1 above. The project team are currently identifying appropriate off and onshore cabling routes within the red lined area to a point of connection with the National Grid Electric Transmission system, targeting Pembroke 400KV Grid Supply Point (identified as the yellow dot in figure 1).

At this point in time, Celtic Sea Power is working openly with all developers in the **Celtic Sea Developers Alliance** using public funding to develop a solution that seeks to maximise the commercial and social return for the benefit of UK plc. We note that this minded-to-decision is focused on a Generator and OFTO led model where the Generator / Initial User or OFTO develops at risk and delivers the Shared Asset, realising the development value at the OFTO Auction.

We are responding to this Consultation as one of the few or only UK Developers of a Shared Asset. **Celtic Sea Power is however not an OFTO, nor are we proposing to be an Initial User.** We are pursuing a project that is currently "highly anticipatory investment" and excluded from the scope of your decision, however, we are looking to partner with Developers or OFTOs at the appropriate stage in the development of our project (at which point it will become anticipatory investment within the scope of your decision).

The adaptation of policy and regulation to unlock anticipatory investment and enable the successful delivery of co-ordinated grid solutions is imperative and we welcome OFGEM's commitment and progress to date. Through the Pembrokeshire Demonstration Zone, we have an opportunity to develop a '**Pathfinder Shared Asset**' that is aligned with the ambition for the Celtic Sea Region.



Tim James  
Infrastructure Development Director

## Formal Consultation Response

Issued 08/06/2022

Q1	Do you agree that consumers should underwrite the risk of the AI Cost Gap by funding the AI Cost Gap until the later user starts paying TNUoS charges?
A1	Celtic Sea Power strongly supports this decision and considers that it is unrealistic for the risk to lie with developers / initial users when they do not have any ability to manage the risk – as you rightly identify, this would be a continuation of the status quo and would result in developers / the initial user being unlikely to pursue greater co-ordination via anticipatory investment.
Q2	Do you agree with the proposal to recover the AI Cost Gap from the later user if the later user connects? If so, do you agree that this should take place over the period of the relevant OFTO licence, starting from the date that the later user starts to pay TNUoS charges?
A2	<p><u>Proposal</u></p> <p>Yes, Celtic Sea Power agree with the principle. As a Later User, the development and commercial risk will have already be taken by the Initial User/Developer. The risks and expenditure required to move the AI project from Early Stage Assessment process to financial Close, Construction and Operations will have been taken and so it is right that the Later User covers the AI cost gap from the date on which they connect. Up until that point, we believe the AI Cost Gap is effectively AI risk and should be covered by the consumer.</p> <p>We note from the main consultation document and the accompanying impact assessment that OFGEM's minded to decision appears to be based on a scenario anticipating there being one initial user and one later user. For floating offshore wind in the Celtic Sea, the first projects (100MW – 300MW) have the most to gain from shared assets given the high costs and complexities that would result from each project seeking to have its own dedicated grid connection. As such, we anticipate that there may be multiple later users connecting following the same or different AR rounds. This can also be seen when looking at the latest Holistic Network Design for the Area by National Grid ESO.</p>



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	<p>It would be helpful in the final response for clarity to be given over whether / how OFGEM's minded to decision caters for a scenario where there may be multiple later users connecting at different points in time.</p> <p><u>Timing of the AI Cost Gap Recovery</u></p> <p>It is important that the charges/payment profiles/security required to be placed by the Later User(s) reflect the maturity of the Later project(s). The user commitment arrangements need to work in line with other contractual liabilities to ensure the bar is set appropriately and that those arrangements do not become a disincentive for Later Users connecting.</p> <p>This should also apply to AI Cost Gap in respect of future R&amp;D enabling projects supporting the adoption for new scale of FLOW and other forms or renewables i.e., Wave / Green H2 etc.</p>
Q3	<p>Do you agree that, save for any amounts recovered under user commitment arrangements, AI costs should be recovered from consumers if the later user fails to connect?</p>
A3	<p>Celtic Sea Power agree that the final default risk (i.e., that a later user does not connect) needs to lie with the consumer.</p> <p>Hopefully, the likelihood of this occurring will be low, provided the early assessment process is aligned with strategic planning on grid, consenting and leasing rounds. However, this risk cannot be completely eliminated and in fact should not be (otherwise the bar to entry for the initial user and the early stage assessment process would be too high).</p> <p>On the basis that shared asset development runs in line with the scenarios underpinning this minded to decision, initial users will have to incur significant additional development and capital expenditure (£3m for Design 1 and £105m for Design 2 and per DNV's appended report).</p> <p>It will therefore be important that the initial user/developer is adequately incentivised/compensated for the development risks and expense incurred as a result of developing an AI asset (e.g. through an appropriate level of risk premium being factored into the OFTO cost assessment process – whilst that process already allows for recovery of properly documented development costs and associated project management costs via the Final Transfer Value, including Interest During Construction (IDC) which also covers development costs, it does not seem to include any such risk premium).</p>



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Q4	Do you agree with our assessment that policy option 3 better meets the aims of the Early Opportunities workstream of the OTNR?
A4	<p>Celtic Sea Power agree with the thought process / reasoning contained in the consultation regarding policy option 3, i.e. that it seems appropriate for the later user(s) to pick up the AI cost Gaps when they connect.</p> <p>The security costs leading up to a connection for later users should align with appropriate external milestones (e.g. Grid / CFD etc) to ensure that the AI cost gap does not become a barrier to later users (as mentioned above in A3). However, we also believe that given the significance of the savings for the later user (£175m for Design 1 &amp; £201m for Design 2), the later user should cover an appropriate level of risk premium for the Initial User to recompense it for / incentivise it to invest the significantly higher DEVEX and CAPEX required to realise a shared asset development. Without this element of risk premium we consider there is a high risk that Initial Users/developers will simply not commit to developing AI assets.</p>
Q5	Do you have views on the modelled assessment of capital cost savings? Please provide any additional quantitative analysis and any further information.
A5	<p>The quantities assessment by DNV is extremely helpful. We note the clarification on page 10 of DNV's report that asset costs are based on 2021 costs and so represent the current shared asset capex costs. Whilst we acknowledge that it will be hard to predict future costs with any real / a high degree of certainty, some consideration of the future costs (bounded by appropriate assumptions) would also be useful / help to give confidence to all stakeholders given that shared assets will start being built after 2025.</p> <p>We note the CAPEX assessment only covered material and EPCI costs. Developers of shared assets will at some point want to include their development and pre-EPCI design costs. This accountancy treatment will need to be accepted and included in the shared asset valuation to manage the risk that developers can't recover higher risk, early development, investments.</p> <p>An alternative could be to have a stage gate earlier in the process where a modest return on early development and pre-EPCI costs can be realised, or at least accounted for.</p>





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	<p>Celtic Sea Power agrees the qualitative and quantitative benefits should be assessed on a project specific basis but believes that where there are multiple projects in a given region, a region-specific approach might be more appropriate. Our reasoning is explained below.</p> <p>In the Celtic Sea, Generators who stand to benefit most from Shared Assets are targeting 100MW test and demonstration projects, whereas the Crown Estate leasing round is targeting 300MW+ projects. This could result in more than one initial user and later user or later users connecting in parallel or in sequence.</p> <p>We would expect both the quantitative and qualitative benefits to improve for both the consumer and the generators targeting this region and would therefore want to see the assessment made on a regional basis. We consider this approach to be more in line with the OTNR, which recently issued its first draft of the Holistic Network Design for the Celtic Sea.</p> <p>Noting the Economic Case and Green Book methodology, qualitative benefits could be quantified in line with appropriate assessment methodologies, helping to inform a more rounded Cost Benefit Analysis and secure value for money for the consumer.</p> <p>As co-ordination could alleviate onshore grid corridor constraints, more capacity could be realised resulting in job and GVA uplift, wage premiums, land value uplifts and CO2 savings benefits being enhanced by that co-ordination. If a mechanism is adopted where the qualitative benefits are quantified, the stage at which this level of detail is appropriate would need to be considered (e.g., pre – Financial Investment Decision).</p> <p>For the avoidance of doubt, Celtic Sea Power does not believe qualitative benefits should be taken into account in the OFTO valuation, but they would be benefits in the wider sense and so it is reassuring to see this will be recognised by OFGEM as part of the Early Stage Assessment Process.</p>
Q6	Do you agree with the introduction of the proposed early-stage assessment process?
A6	<p>Celtic Sea Power believes that having an early stage assessment process should be beneficial and help to boost investor confidence.</p> <p>Celtic Sea Power also welcomes the ongoing reassessment process that is envisaged, catering for changes to the scope of previously assessed co-ordination activities ahead of the cost assessment process.</p>

	<p>However, given the timescales associated with the development and build of shared assets, the assessment process itself should be robust and protected from material modification while projects are mid-way through that process. It is critical that investors have confidence in the integrity of the process and that the decision set out in Ofgem’s decision letter will not change if there are no subsequent material changes to the scope of the co-ordination activities assessed.</p> <p>The inclusion / addition of a “preliminary or concept stage” assessment process might be helpful in providing comfort / confidence to developers considering investing in concept to pre-EPCI design and development costs that might include AI.</p> <p>By way of analogy, the preliminary accreditation process under the Renewables Obligation was very helpful in providing early-stage investment confidence for developers and investors, thus helping to deliver policy ambition vis-à-vis increased deployment.</p> <p>A “preliminary or concept stage” assessment process may also provide a clear direction earlier to the market (and to government) around the Shared Asset strategy for a given set of projects or region (in the case of the Celtic Sea).</p>
Q7	Do you think the information sought as part of the early-stage assessment process is appropriate and proportionate?
A7	<p>The information listed out in Paragraphs 3.9.1 – 3.9.6 of the consultation are helpful and should prove useful in aiding Ofgem’s decision making.</p> <p>Celtic Sea Power believes that the next level of detail / requirements and any certainty thresholds that may be applied by Ofgem during the assessment process will need to be considered carefully, consulted on and set out in the guidance in as much detail as possible so that developers have confidence in / visibility over how their projects will be assessed. At the same time it will also be important that the bar is not set too high given that a number of assumptions (e.g. on costs and benefits) will inevitably have to be made where projects are still in the relatively early stages of development.</p> <p>Celtic Sea Power has suggested in A6 that a “preliminary or concept stage” assessment process might help to give strategic clarity sooner whilst ensuring maximum consumer benefit is gained from the use of shared assets for projects or regions.</p>



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	Celtic Sea Power believes this would foster a more collaborative mindset with Developers who are considering developing Shared Assets for Early Opportunity projects and Pathway to 2030.
Q8	Do you have any views on the timing of the early-stage assessment process?
A8	<p>Celtic Sea Power believes that aligning eligibility for an early-stage assessment process with the grant of an Award for Lease by the Crown Estate and completion of the CION process is logical.</p> <p>We do, however, believe that projects at this point in the development cycle will be relatively mature and that some developers may not be in a position to take early development AI risk (which for Design 2 in DNV's report exceed £100m) without additional support / comfort.</p> <p>An earlier stage process to set the strategy for leasing areas or regions would help to boost investor confidence, foster collaboration and ultimately benefit the consumer, hence why we have suggested the development / addition of a "preliminary or concept stage" assessment process in A6 and A7.</p> <p>Such a "preliminary or concept stage" assessment would also provide an opportunity for non-generator, non-OFTO, developers to enter the market, providing a point of time in the development cycle which could help to facilitate the formation of partnerships between that developer and a generator or an OFTO. This could, in turn, lead to more efficient shared solutions being developed, for example, shared assets developed in locations that are optimal for the majority of connecting parties rather than an add-on to the initial user's generating site. It may also lead to more proposals coming forward and reaching sufficient maturity to go through the early-stage assessment process.</p> <p>Along with a clear process to cover risk premiums, Celtic Sea Power believes that this would increase the appetite for more non-generator, third party developers (including OFTOs) to enter the market, thus helping to increase competition and (ultimately) drive down costs and increase value for money for consumers.</p>
Q9	Is there any other information which you believe should be included in the confirmation to developers?
A9	The Early Stage Assessment process must be transparent and not subject to unilateral change by OFGEM.





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	<p>A process for change management for the initial user/developer will need to be implemented to mitigate the risk of the shared asset being a fully/partially stranded asset with no/fewer than anticipated later users.</p> <p>Developers understand that OFGEM may not be able to provide clarity at this stage on any conditions or stipulations that may be contained within such a confirmation (e.g. because they may be project specific). However, any such stipulations need to be reasonable and proportionate otherwise they could jeopardise the initial user /developer's ability to succeed in the securing the necessary design/consents/procurements etc to reach financial close and deliver the project.</p>
Q10	<p>Do you agree with the proposed extension of user commitment arrangements to the potential later user of offshore transmission infrastructure which has been funded by AI?</p>
A10	<p>Yes</p> <p>We believe that later user should pick up commitment fees that relate to their proportion of the total capacity (TEC). In addition, given the savings and risk mitigated, as noted in A3 above we believe the later user should also be supporting an appropriate level of risk premium for the Initial User.</p> <p>We note that in paragraph 4.13 of the consultation document OFGEM encourages the ESO to bring forward a CUSC modification proposal - we assume that further detail will be set out in that proposal and that industry will, in due course, have the opportunity to engage with that proposal via the modification process.</p> <p>Considerations such as the financial impact of applying for grid connections with TEC in excess of the requirements of the Initial User, and how user commitment and cancellation fees would work, need to be carefully considered. Initial Users/Developers will be disincentivised to proceed with early stage AI investment if the process becomes too complex and the risks/financial penalties are significantly higher than would be the case in a non AI investment.</p>
Q11	<p>Do you have any views on the manner in which the user commitment should be calculated?</p>
A11	<p>Celtic Sea Power believe that it is important that the user commitment steps up with the maturity of the project, as with current arrangements. We are assuming that, in</p>



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	<p>the case of the Developer/Initial User, user commitment fees are paid only in respect of any Onshore Transmission works required. It is important that this relates to the initial user's TEC rather than the total TEC included in the AI. (See the last paragraph in A10 above.)</p> <p>For later users, the approach of charging commitment fees from signature to commissioning to cover the AI cost gap is appropriate, again provided that they only pay user commitment fees related to their specific TEC. The later users' commitment fees will need to be higher per MW to account for their proportion of the AI and to cover the relevant portion of risk premium borne by the developer/initial user.</p>
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