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Offshore Wind Phase Two Consultation

Dear All,

Thank you for providing us with the opportunity to respond to the above consultation, and for the engagement opportunities provided, both bilaterally and via WEI. We are concerned that the breadth of the consultation, which covers proposals regarding how the future Maritime Area Consents (MACs) could be awarded, impacts for timing (and size of ORESS2) and implications for Phase 3 may not fully consider all the interactions and impacts on subsequent decisions. It is hard to separate out the core components and to consider the issues separately, especially given the impacts on wider regulatory issues, such as the Connections Offer Policy and Process, system operation, network access, as well as the wider implications for wider marine planning.

That said, we are clear that the focus must remain on deliverability of the2030 targets and. and minimisation of additional costs to the consumer, and **it is paramount that no proposals for Phase 2 interfere with the progress and development of the Phase 1 projects.** As such, we believe the prime criteria for the allocation of future MACs should consider the developers' track record with regards to their technical and financial competence in delivering offshore projects to time and budget, and ensuring alignment with EirGrid's assessment of the network build out as contained within the Shaping our Electricity Future (SOEF) 2021, and [if available] a future revision of the SOEF plan, modelled to consider the requirements to meet the increased target of up to 80% of final demand to be met by renewables, noting that the additional capacity may not be delivered through offshore.

We would emphasise the following points.

- Maritime Area Consents issued to Phase 1 projects, which are unsuccessful in ORESS1 must remain valid to ensure the projects can continue with the development consent process which will be in process (or already granted) via An Bord Pleanála (ABP).
- Given the delivery timescales, we would recommend DECC seeks to procure as much capacity in ORESS1 as can be achieved in a transparent competitive manner – and not seek to artificially cap the capacity before the application of the Regulator's Final Competition Ratio.

- Clarity on the outcome of the process for Phase 2 MACs (application and allocation) is required urgently, so that the preparatory work and regulations (as necessary) can be implemented in a timely fashion.
- Consideration is necessary of the linkages between the decisions taken by DECC and the impacts on the CRU's decision regarding the Grid Connection Assessment validity for Phase 1 projects.
- DECC must avoid a cliff edge for Phase 1 and Phase 2 MAC holders in 2031 - the transition for Phase 3 needs to be clearly signposted, routes to market confirmed and the timescale and associated milestones for the OREDP2 process to be published.
- Phase 2 projects will be required to make up the shortfall of offshore capacity required to meet the 2030 targets - therefore ensuring only projects which are capable of meeting that challenging target should be awarded a MAC and in future the opportunity to participate in ORESS2. N.b. the application for a foreshore licence should not be treated as a credible milestone upon which to assess a project's ability to deliver by 2030.
- It should not be possible for MAC holders to "*hoard*" either seabed rights, grid capacity or RESS volume on the basis of speculative development activity. Therefore, where projects cannot reasonably demonstrate likelihood of success in line with the Government's policies and targets, such allocations should be made available to the market.

If you have any questions regarding our response, please let me or Kate (kate.garth@rwe.com) know.

Best wishes

Project Director, RWE Renewables Ireland

RWE Renewables Ireland – Response to DECC Phase 2 Consultation

1. ***Which is your preferred option and why of:***
   a. ***The above options?***
   b. ***The above options, variations of same, and other possible options within the parameters outlined in this paper, particularly sections 3 and 4?***

We understand the key drivers which will guide the Policy framework for Phase 2 (allocation of MACs and thereafter access to grid and route to market) to be:

- Ensure the cost-effective delivery of the 2030 targets
- Maximisation of existing grid capacity
- Facilitating free and fair competition in generation

Of the options set out, our preference is for **Option B**, given we firmly believe the need to ensure competitive allocation of the limited seabed, and capacity to projects who can deliver the generation by 2030.

We do not support the different sequencing set out in Options C and D, given this would make the auction outcomes far more speculative; significantly increasing the risk that projects will not deliver on time and putting both Ireland's domestic targets, and contributions to the EU targets at risk.

It is clear from all the options set out that there would need to be a prequalification stage in advance of any MAC award (be it via allocation or auction- noting our preference for an auction), given the multiple claims of interest and differing levels of preparation across projects. It is hard to state a preference between the different options as presented, given the lack of clarity as to what the potential criteria for a MAC award would or could be. We would suggest as a minimum that the criteria should include an evaluation of the following:

- Grid Availability and consistency with EirGrid's latest plans under SOEF
- Financial and technical competencies, which would be based on the project sponsor(s) proving a demonstrable, relevant and recent track record in the design, construction, and operation of offshore windfarms
- Stakeholder engagement and other preparatory work undertaken (this should not just be considered in the context of a foreshore licence application having been submitted).
- Given those multiple activities can be undertaken in advance, these include but are not limited to the following where relevant:
  i) Desk based review of seabed conditions using datasets such as those available from INFOMAR (Geological Survey Ireland and Marine Institute)
  ii) Navigation Radar Surveys (to understand frequency of marine traffic through a development site)
  iii) Offshore Wind Farm layout and design
  iv) Aerial bird and marine mammal surveys

v) Offshore Environmental Impact Assessment
vi) Offshore design evolution and iteration
vii) Landfall site selection and geotechnical investigations onshore
viii) Electricity cable route selection and design
ix) Onshore substation site identification and design
x) Onshore Environmental Impact Assessment
xi) Operation and Maintenance Base site selection and design
xii) Supply Chain Mapping
xiii) Public engagement and information sharing
xiv) General stakeholder engagement
xv) Detailed project development and construction plan that credibly and objectively demonstrates a capability of achieving commercial operation by 2030 considering factors including, but not limited to, access to global supply chain, design and construction experience, financing capability etc.

Given the recent rush of applications for foreshore licences around the Irish coast, we strongly recommend that, in options A or B, the criteria be set out a fair and transparent means to assess the applications that avoid future disputes from developers seeking to obtain a MAC for the same seabed area (whether in whole, in part or for example through overlapping export cable corridors to shore).

Furthermore, there will also be a need to ensure, irrespective of the eventual option that is chosen, that any MAC which is agreed for a **Phase 2 project, which is adjacent to or, for example, would likely have an overlapping cable corridor that they are required to inform the existing MAC Phase 1 placeholder, given the impacts that additional infrastructure could have on both the natural and human environments of the Phase 1 projects.** These impacts could include for example wind yield interference, derating of export cables, displacement and enhanced collision risk for birds and potentially affecting the coexistence balance planned or achieved with other marine space users.

2. ***Option A proposes that a deployment security is required for to apply for a MAC in Phase 2.***
    a. ***How should the security be calculated and what rate should apply? If the security was to be calculated based on planned capacity, what rate should apply?***

We support the use of a deployment security to ensure that only developers who have sufficient financial reserves (as well as the necessary technical competence) to be capable and credible to develop the necessary offshore renewable energy by 2030.

We assume that point *(iv) in the Option A - Advantages (An appropriately scaled annual pre-generation seabed levy rate)* will need to be set at a similar level (€20,000/km^2) to that which the Phase 1 projects will be paying, given there may be at least one unsuccessful Phase 1 project seeking to compete within the eventual ORESS2 auction.

Given that the Phase 2 project is unlikely to know the full capacity of the site at the time of MAC application, we believe it would be more appropriate for the deployment security to be calculated based on **the seabed area to be occupied**, given that the larger the area, the higher the deployment security. This coupled with the development seabed levy (also based on a km^2 basis), should discourage projects from seeking unfeasibly large seabed areas given the level of total capacity [ca. 3GW] required and the number of competing interests around the coast.

b. *Should the security be required to be in place prior to application for a MAC or post-issuing of a MAC? If post-issuing, what is a reasonable timeframe?*

We believe any deployment security should be lodged prior to the MAC application, otherwise the risk remains that the project may, (following its MAC award) decline to develop the site, thereby preventing an alternative project from having the opportunity to do so. Whilst a "*reserve list*" could be an alternative approach, whereby if the developer with the MAC does not provide the development security within a specified limited period, the next project in the stack would be successful.

However, given the time and complexity this could require, we believe it would be simpler and more effective for the deployment security to be provided before the MAC allocation. We would also advocate that such performance security should be by way of cash-backed bonds or similar arrangements rather than Parent Company Guarantees or other such arrangements.

c. *Under what terms should this security be drawn down?*

We agree that the criteria as set out in the consultation appear reasonable, given these would only be applied if the project is unsuccessful in ORESS 2 or doesn't conclude an alternative route to market. We would also note any failure to comply with other necessary obligations, including the execution of the MAC, placing decommissioning bonds etc would also result in the drawdown of the deployment security.

It must be clear that Phase 2 projects that are unsuccessful in ORESS2 will not be able to participate in any subsequent ORESS auction - given this would distort the competitive arrangements for the enduring regime. We support the rationale that the development security is in place to ensure that the MAC sites are developed by credible developers.

d. *The security, as proposed, expires with the securing by a project of a route to market. For projects successful at ORESS 2, this is also the stage when the auction performance security is due be put in place. Would it beneficial for the deployment security to be rolled over towards the RESS performance security? How best this be managed?*

This would appear to be a sensible suggestion (assuming that the levels were of a similar amount and the deployment security to be provided was of a type acceptable to DECC (i.e., not a letter of credit, PCG etc) that could be used for the purposes of the performance

security. We would ask only that there would be a provision enabling the security to be transferred from MARA to DECC, if that were to be required under the future ORESS2 Terms and Conditions.

e. ***What other terms should apply to this security?***

No additional comment.

3. ***Option B proposes a competitive MAC process.***
   a. ***What assessment criteria should be used in this process? What should the weighting of this criteria be?***

We support the process for a competitive MAC process and believe a similar approach to that used in Scotwind would provide the most appropriate approach for the immature Irish Offshore market. Therefore, we believe the competitive allocation would be based on a capped auction for the MAC (both capped in price and number of sites / capacity), with a fair and transparent qualitative element applied, which would assess the projects' financial, technical and deliverability by 2030.

At a high level, we would suggest the following criteria should be included:

- Consistency with the National Marine Planning Framework
- Consistency with availability of capacity for offshore as set out in SOEF.
- Financial competencies (as per the proposed approach for Phase 1 projects)
- Technical competencies (as per the proposed approach for Phase 1 projects)
- Demonstrable progress on the site development (as per our list in response to question 1)
- Size of and number of MACs sought – similar to the recent US auction (Bureau of Ocean Energy Management, New York Bight), we would strongly recommend that developers can only submit (or be awarded) one MAC for a fixed bottom project; given the scale of cost associated with the development of offshore wind farms. *Noting this should not preclude any developer seeking an additional MAC for an innovation project.*
- Engagement with local communities.

With regards to the weighting, we believe for the allocation of MACs for Phase 2 projects, alignment with grid availability, technical competencies and financial competencies are all essential and should have equal weighting, given the known challenges in developing an offshore wind farm for 2030.

Consistency with the National Marine Planning Framework should be a pass / failure.

We would recommend that MACs should be allocated based on a maximum of one per developer, given the significant financial commitment that will be required, and the substantial level of devex at risk prior to an auction.

We do not believe it is credible for developers to progress multiple (Euro billion) offshore projects, seeking to secure a route to market via the same auction, with the same 2030 delivery target, given the need to demonstrate a competitive approach within the ORESS2 auction.

b. *Should a seabed levy auction be included in this assessment? What weighting should the auction result have?*

Yes, we believe a competitive seabed levy should take place, given the competing developer interests in several offshore areas. Having the auction will enable the value of each site to be assessed by developers, ensuring that alignment with the 2030 targets and grid availability is maximised. Given that there will be at least 1 Phase 1 project seeking to compete in ORESS2, we would suggest that any competitive MAC process includes a capped and floor price (set at the development levy level of(€20,000 /KM^2 indexed).

c. *Should a deployment bond be maintained under this option? Why, or why not?*

As per our response to Question 2, we believe the requirement for a deployment security should be applied for both Options A & B, given the importance of ensuring that only developers with the financial and technical capability and with a realistic chance of developing the site to meet the 2030 targets can proceed.

If there is any doubt from developers as to whether that 2030 date can be achieved, the enduring regime, Phase 3 post 2030 should be the preferred route. As such, greater clarity on the timing, scale, and route to market for Phase 3 projects needs to be provided ASAP to avoid projects seeking a MAC for want of a future opportunity, without having a realistic chance of 2030 deliverability.

4. *All the above options assume that Phase One projects retain their MACs for Phase Two.*

a. *Is this the correct approach? Why?*

Yes, we believe that the retention of MACs for Phase 1 projects is essential to ensure any project which did not clear within the ORESS1 auction can continue with the development consent process which will be in process (or already granted) via An Bord Pleanála (ABP).

We note that a failure to secure a winning bid within ORESS1 does not necessarily mean that the project is immature or financially unviable, but simply because another project bid lower or that the project is dealing with a significant level of uncertainty given the trajectory of development of consenting, grid and route to market policy leading up to the ORESS1 auction.

DECC has consistently confirmed (both within industry workshops and publicly) that projects unsuccessful in ORESS1 would be eligible to bid into at least one

subsequent auction. It would be extremely damaging to the industry and future investment if this were not the case. It is worth noting, that most Phase 1 projects are more mature and have a significantly higher likelihood of reaching COD and supporting the delivery of the 2030 targets than all Phase 2 projects.

Requiring any unsuccessful Phase 1 ORESS projects to reapply for a MAC would also **require a delayed opening of the MAC application window until after the results of the ORESS1 auction and signing of the Letter of Offer has completed**. Furthermore, it would undermine investor confidence, increase the pressure on scarce MARA resources and decrease the attractiveness of the Irish offshore market

Another potential risk would be a scenario where a development consent application had been submitted and was under assessment by ABP. The potential legal implications of an automatic loss of MAC (or GCA) arising from the outcomes of ORESS1 prior to the decision being made would need to be very carefully considered.

Phase 1 projects are essential to reaching the 2030 targets set by the Government. If Phase One projects lose their MAC for Phase 2, this will completely undermine the achievement of the 5GW target.

b. ***Would requiring Phase One projects that are unsuccessful in securing a route to market, within a specified timeframe, to re-apply for MACs result in a better outcome for the sector, the State and consumers? Why?***

As noted in the response to question (a) above, we **categorically** do not agree that requiring Phase 1 projects, that are unsuccessful in securing a route to market, to reapply for a MAC would provide a better outcome for any of the stakeholders mentioned above.

This is because it would unnecessarily increase developer costs, which serves only to increase bid prices, without any providing any additional benefit. Additionally, it would increase the demand for resources within MARA, something that puts additional pressure on the already tight timescales for any Phase 2 projects to meet COD before 2030.

Delivery of Phase 1 projects is fundamental to the successful establishment of the offshore industry and to the successful delivery of 2030 targets.

c. ***If Option D was selected would this require unsuccessful Phase One projects to relinquish their MAC before ORESS 2? If so, should these***

projects be given any preference such as a right of first refusal if they match a winning bidder's terms for their MAC area?

Whilst we do not support the proposal as set out in Option D, if Phase 1 projects were required to relinquish their MACs before ORESS2, then we would agree that those projects should be given the right of first refusal if they match a winning bidder's terms for their MAC area, given their investment to date, which as noted in b above, would have been predicated on the clear expectation that unsuccessful ORESS1 projects would be able to bid into the second offshore auction on the basis of their granted seabed rights.

5. ***To incentivise swift deployment, discourage speculative hoarding of the marine space, discourage MAC applications by projects incapable of delivering by 2030, and facilitate the coherent transition to a plan-led Enduring Regime, it is proposed that all MACs awarded in Phase One and Phase Two will expire prior to the Enduring Regime, should the holders of these consents be unsuccessful in securing a route to market.***

   a. ***Is this the correct approach? Why?***

We fully agree that the clear policy objective set out for Phase 1 and Phase 2 is to facilitate the delivery of the 2030 targets, and therefore that will be the focus of the projects, particularly given the high likelihood of a long stop date of 2030. We recognise the announcement in April 2021 regarding the offshore grid development, that Phase 2 would be the transition between the developer led approach in Phase 1 and the plan-led, centralised approach in Phase 3.

That said, we do not believe a blanket, cliff edge approach to the loss of the MAC is the right approach, especially if the MAC which was awarded is within a location which is subject to a future Designated Maritime Area Plan.

Until there is clarity on both the routes to market for any Phase 2 projects unsuccessful within ORESS2, and the scope, location, and objectives for Phase 3 we would not recommend revocation of any awarded MACs (unless there is no demonstrable progress in line with the associated milestones).

We do however fully support proposals which would limit seabed hoarding, and to that end, we would fully endorse proposals which **would prevent** a phased approach for offshore projects, and projects which seek to locate in areas of limited grid capacity (both at a connection location and wider node).

In order not to exclude innovative projects, such as the development of hydrogen electrolysers or export to another jurisdiction, we would recommend including a check as part of any MAC application prequalification process, which could ringfence projects which will not require any onshore grid capacity, noting however that such projects should still have a designated development longstop date, after which their MAC would be revoked to prevent hoarding of the seabed. However, as innovation projects, the size of the requested

seabed area would, by its very nature, be limited (please also see our response to question 10).

b. *Would this approach incentivise deployment and/or discourage hoarding of the maritime space?*

As noted in our response to a) above, the introduction of a cliff-edge would likely create too much risk and disincentivize more experienced developers, who are aware of the potential risks, from participating in Phase 2, and could result in the faster spend, which is inconsistent with the orderly and proper development of a project aligned with the government's wider delivery objectives.

We believe there are other, more targeted, and relevant approaches which could and should be rigorously applied to avoid seabed hoarding, these include:

- Strict milestones set out in the MAC itself, in terms of route to market and submitting an application for development consent. This will be required to manage a range of options, such as intention to export the power outside of SEM or to produce hydrogen
- Close supervision of the project and the conditions of the MAC by MARA

c. *Would this approach discourage MAC applications in Phase Two from projects with poor pre-2030 deliverability?*

Yes, we believe such an approach could disincentivise applications from credible and realistic projects and their sponsors.

6. *What are your views on providing provisional grid offers to projects in the case where all projects receiving such an offer will not be able to obtain a full grid offer?*

Please note that our response is predicated on the assumption that due to the cost and time (not least potentially seeking and being awarded a new foreshore licence or marine usage licence) that those Phase 1 projects unsuccessful in ORESS1 would retain their GCA.

There is an inherent requirement also to ensure that EirGrid, in carrying out its duties, considers the capacity available within the various locations and connection points. Given that for projects which have already had a Foreshore Licence issued to undertake specific surveys within a marine area for the purposes of understanding the wind array area and cable area, these should have considered existing or proposed ORE projects.

The prioritisation by both DHCLG (in terms of the foreshore licence prioritisation, as set out in October 2020), and the expectation of available capacity by EirGrid in its SOEF document in November 2021, the proposed 5GW offshore target for 2030 must primarily be located on the East and South-East coasts as that is where the limited grid capacity is located.

As such, any GCAs or equivalent issued to projects outside of these areas would need to be considered highly risky and / or at risk of non-delivery before 2030 and should be discouraged. Given that there is already clarity as to how much and where there will be available grid capacity, we would recommend that the provision of the GCAs should simply provide a generic offer for the grid available; the onshore connection methodology (i.e., connection node, substation works and any likely deep transmission upgrades).

The objective of this generic offer approach would be to ensure that all developers have the same information regarding the connection point characteristics that is outside of their control and that the developers can price in the cost of their contestable works into their ORESS2 bids.

This will have the additional benefit of reducing the resource pressure upon EirGrid from projects which may have little likelihood of obtaining a route to market and / or 2030 delivery.

a. ***How can and should the award of full grid offers be tied to the auction results?***

Full grid offers should be tied to both the outcome of the ORESS2 auction and granting of development consent by ABP. Like our submission re Phase 1 MACs and GCAs, we believe that any GCA (or equivalent issued) must ensure that the agreed MEC and connection location are maintained post ORESS2 until consent is granted, given the need to ensure the bids submitted and planning applications remain relevant.

b. ***Should allowance be made for projects that do not effectively compete in the auction but share a preliminary connection offer with projects that do to remain eligible for a CPPA route to market?***

Given the intention that Phase 2 projects would seek to meet the remainder [ca. 3GW] of offshore wind by 2030, we are sceptical of the likelihood of projects seeking a CPPA and being able to agree on for their full volume, by 2030. Whilst we would not rule it out as a route to market, we believe the grid access should be prioritised for the successful ORESS2 applicants, and therefore the unsuccessful project should be eligible for a revised GCA but based on a later date of both firm access and potentially lower MEC.

7. ***What are your views on auctioning capacity at particular grid nodes or regions in ORESS 2?***

We do not agree with the proposals to auction capacity at a particular grid node or region within ORESS2 and believe that this should be unnecessary if the MAC pre-qualification process properly ensures alignment with the proposals and expectations of SOEF, which clearly sets out the available capacity (total) across the different geographical regions.

a. ***How should this operate? Should successful projects be required to submit ORESS 2 offers that clear both the overall auction and the auction for a given grid node or region?***

No – we believe that would increase the risk to the development. If it were possible to have a competitive allocation of the MAC, competitive determination within ORESS2 which would still result in a winning project being replaced by a more expensive project in a less-congested location. Such complexity would reduce, rather than improve the likelihood of the delivery of the 2030 targets. For clarity, this underlines the importance of ensuring Phase 2 projects seeking a MAC (with the intention to transmit power on to the Irish grid) are aligned to the areas of available capacity as set out in SOEF.

b. ***Should any nodes or regions be reserved for non-ORESS routes to market?***

No. But this is based on the specified assumption that alignment with SOEF will form part of the pre-qualification criteria for MACs which seek to transmit power onto the Irish grid to the demand centres. There is extremely limited grid available and the assumed costs and time to connect will be a material factor in the eventual ORESS2 bids and therefore future impacts on customers.

The price discovery inherent within the auction should not be diluted, by non-auction-based actions. Similarly, developers must have the equal access to the grid capacity, where it is available, there should be no expectation of transfer of existing grid or the expansion of the grid where this has not already been planned, given that this would make its deliverability highly unlikely – and increase the risk of wider negative stakeholder reactions and increased costs for consumers.

8. ***In order to utilise grid capacity realisable by 2030 in totality, most options require the award of greater capacity in ORESS 2 than is realisable by 2030, and establishing reserve projects on grid orders of merit, possibly grid region***.

Whilst it would be expected that more MACs (with a level of capacity) will be awarded which surpasses both the Irish targets for offshore wind by 2030 and level of available grid capacity, those costs will flow through to the eventual ORESS2 merit order.

We do not believe that there is sufficient time available to devise a separate grid merit order which could run independently of the grid connection assessment (or equivalent) costs, which will be used to determine the successful outcome of ORESS2. All projects within ORESS2 will need to face the same deliverability challenge, demonstrating COD by 2030 which will be reliant upon grid availability.

a. ***What are your views on grid orders of merit? How best could reserve lists be established in a robust manner that does not give rise to legitimate expectations by reserve projects?***
b. ***How should grid orders of merit be established? Is using ORESS 2 bidding order, possibly by grid node/region, an appropriate methodology?***
c. ***What obligations should be placed on reserve projects and what, if any, compensation should be provided?***

d. ***How should reserve projects be serviced so that they can readily progress if required?***
e. ***How should reserve projects be held to the terms of their ORESS 2 offer?***

9. ***Option D outlines an auction with mutually exclusive offers and multiple bidders specifying the same MAC area and/or connection point allowing multiple bidders to specify the same MAC area and/or grid node/region and using ORESS 2 results to allocate the MAC area and/or grid node/region capacity.***

a. ***What are your views on the feasibility of this option? What are your views on the feasibility of solving the auction using an optimisation approach?***

We believe the proposals as set out in Option D would be overly complicated, result in gaming of the auction and will deter investment, we do not support this option and therefore choose not to respond further.

10. ***Hybrid grid connections are defined in this paper as single grid connections which facilitate the connection of both an existing or proposed thermal generation plant and a proposed offshore wind project.***

a. ***Do you support the facilitation of such connections, as defined? Why?***

We support the facilitation of hybrid sites but disagree with the proposed definition as set out above:

- Hybrid connections need to be considered in the round and should not simply be considered as being offshore plus existing thermal plant. To be clear, we fully support the objective of facilitating hybrid sites, but there are currently multiple, and significant challenges facing the implementation of hybrid sites in Ireland, both for onshore and offshore projects.
- The implications of grandfathering state owned assets to incumbent conventional operators should be carefully considered in the context of the objective of delivering an open, competitive market.
- Whilst an incumbent may seek priority to the assets under their control, they may not secure access to the corresponding seabed so the project could fail, and incumbent generators should not be given priority access in this context **– seabed rights should be allocated on the most competitive basis and delivering the best value to the state and the consumer.**

The wider competitive implications of the proposal as set out have not been considered, (these include, but are not limited to) how would the access to the connection's capacity be implemented) **were the offshore developer to be a different legal entity to the existing**

onshore asset. Without this clarity and certainty as to how the access arrangements would be facilitated – the commercial and technical frameworks implemented, it is unlikely that any independent developer would seek to apply or bid for a MAC, which would constrain the fair allocation of MACs.

Whilst we recognise that the consultation confirms that the proposal for hybrid offshore connections is separate to the previous FlexTech workstream; which specifically excluded offshore wind, we believe it is worth highlighting the on-going issues experienced by onshore sites which seek to operate as truly hybrid sites.

- There is still no ability to allow different legal entities to share a connection – *n.b. this issue has been under consultation since September 2020 and did not consider how it would be implemented, only whether it should be enabled.*
- There is no ability to share (dynamically or otherwise) the existing site's MEC between multiple assets located behind the meter

There are also potential Grid Code challenges, including:

- Grid capacity is assigned to a site, within which all generators must sit.
- Since the new onshore enduring regime were introduced, grid capacity cannot be relocated.
- Grid capacity is issued to a specific technology – any change would be reliant on a modification to an existing agreement, without any certainty as to whether in future this would be permissible.

Until all the associated issues have been assessed, proposals (with timescales) formally consulted upon, we believe including offshore hybrid connections in **Phase 2 could be premature, risk perpetuating incumbency advantage and result in sub-optimal consumer outcomes.**

As already set out in the CAP19, coal generation is expected to be off the system by 2025 (and peat by 2028). Whilst we note the apparent slippage in this date, the inability for coal and oil-fired generation (in particular) to continue beyond 2030 makes the likelihood of an actual hybrid connection unlikely.

It is very surprising that only existing thermal sites would be considered, especially given that most existing thermal generation capacity that could feasibly be used to connect future offshore projects are likely to close before 2030- as such this would simply result in **hoarding of valuable capacity that should otherwise be returned to the market to be allocated in a fair and transparent manner.**

We are therefore concerned that this approach could inadvertently enable capacity to be transferred within an existing entity, without other competitors having the opportunity to access this capacity and connect to the grid.

b. ***Are you aware of any other jurisdictions where such connections are permitted? Describe how hybrid connections are treated from a technical and regulatory perspective in these jurisdictions.***

We are not aware of any hybrid offshore connections at present. In the UK there are discussions ongoing as to how the Future of Offshore Transmission Review (launched in2020) could work to both deliver faster connections pre 2030 and the best enduring regime. We note that Multi-Purpose Interconnectors could be used to facilitate offshore wind connections – despite its launch in 2020, options are still being assessed. We would suggest this gives some context as to the scale of the changes required and the need for careful and holistic scrutiny of the impacts for charging and CfD rulesets.

c) ***Are there potentially unintended consequences associated with permitting hybrid grid connections, such as potential impact on grid system services provided by the associated thermal plant or potential impacts on the reliability of the thermal plant?***

Yes, there are several.

The biggest unintended consequence of allowing consideration of hybrid connections within this consultation focused primarily on how to allocate Phase 2 MACs, without the attendant visibility of what the market framework will include, and oversight to avoid competitive distortion, will by its very nature result in no developers seeking to be awarded a MAC (and become liable to substantial financial costs), which would be reliant upon a hybrid connection to access the Irish grid.

There is also the lack of information as to the number, type, location of potential hybrid (with thermal generation), who owns them / controls access etc – and when (in line with the current draft Carbon Budgets 1 & 2) the older and most polluting conventional plant will be removed from the grid.

Until there is an agreed and published route for establishing primacy of export at the connection, modelling of wider system impacts, as well confirming the commercial and technical issues, we do not believe offshore hybrid connections should be facilitated within Phase 2 as currently defined (either as a basis for a MAC application or for inclusion within ORESS2).

c. ***How should proposed projects with hybrid connections be treated so as not to distort competition or afford undue competitive advantage to the incumbent owners and operators of the associated thermal generators?***

Unless there are specific rules put in place that would prevent the original [in this case thermal] generator or a subsidiary company from being the developer of the offshore site, **we have no confidence that the issue of incumbency advantage can be avoided were this option to be incorporated within ORESS 2 (and therefore Phase 2 MACs)**.

For this reason, we advocate a clear task force being set up to ensure that by Phase 3 and the enduring regime (2030+) that hybrid connections are facilitated and implemented in a timely way that still provides sufficient time to assess and understand the wider issues, including competition, land access, planning permission, land rights etc.

To rush any decision through now would simply facilitate the hoarding of grid capacity, by those who currently have it, and would run counter to the objectives and principles of ECP and the recent decisions for Phase 1 to minimise hoarding.

d. ***Do you support the facilitation of such connections, if the definition was adjusted to, e.g., an existing or proposed onshore battery, solar or other generator?***

As per our previous responses, yes, we support the facilitation of hybrid sites, but not in the context for offshore hybrid sites as defined above for Phase 2, as we do not believe there is sufficient time to ensure this can be designed and consulted upon prior to any MAC allocation process to be run in 2023.

11. Should any special allowances for innovation technologies be included in the Phase Two process?

a. ***What technologies should be provided with special allowances and why?***

For clarity – for the purposes of innovation, we assume this is in terms of facilitating MAC applications from sites which are not fixed bottom offshore wind, so could include wave, tidal as well as floating offshore wind. MAC applications for co-located offshore wind and hydrogen production facilities could also be considered, although we are unclear that the technical parameters would be ready for a MAC application window opening in 2023.

Floating turbine technology will play an important role in Ireland's energy future. RWE is already involved in three floating offshore wind demonstrator projects in Norway, Spain and the US and is building an extensive pipeline of global projects. However, it is important to note that there is no floating project larger than 50MW operational today, nor is there a realistic prospect of delivering significant levels of floating wind in Ireland before 2030.

Floating wind will be significantly more expensive than fixed based wind beyond 2030, due to the immaturity of the technology and supply chain (particularly as there is no supply chain in Ireland currently, fixed or floating). If large-scale floating wind were to be deployed in Ireland before 2030 **it would be at a significantly higher price to consumers than fixed based projects**.

At present, there is no operational Floating offshore Wind site >50MW (the 88MW site in Norway is still under construction). We are therefore extremely concerned at the suggestion of multiple >GW sites that could be developed before 2030 - this is not credible from a financial nor technical perspective and would risk hoarding and sterilisation of both seabed and grid. Furthermore, we believe that floating wind is not required in order to meet Ireland's 5GW target, as there is adequate fixed wind potential to do this.

b. ***What allowances should be made? At what stage(s) of the Phase Two process? Should capacity be reserved in the MAC and ORESS processes for any of these technologies?***

For the purposes of innovation, we support the application of MACs for the most immature technologies, such as wave and tidal, and for offshore floating site, but these should be designed to deliver modest projects, which are designed to develop the learnings on connection, operational of these sites and for the future pump prime Irish supply chain potential.

Innovation by its nature does not mean mainstream, and therefore we would not advocate any specific reservation of capacity, outside of the need for Offshore Floating Wind demonstration projects to support the development of the technology in Ireland given its critical role in Ireland's future energy mix.

c. ***Should these types of projects also be required to deliver by 2030?***

If these projects will be reliant upon ORESS2 funding, then yes, as the long stop dates would be common to all successful ORESS2 projects.

If the purpose is to demonstrate technical viability, then we would suggest not, but (as per our response to question 5a); there would need to be clear milestones set and development achieved to ensure that the developer can continue to occupy the seabed area. Learnings from this innovation should be ready in advance of Phase 3, so that future seabed rights are allocated appropriately.

d. ***What level of offshore wind capacity could be deployed before and after 2030 that does not depend on the Irish grid for offtake? i.e., generation that is instead utilised for non-grid offtakes such as green fuel generation or export by cable to another jurisdiction?***

We believe there is considerable risk of exaggeration and over-optimistic assumptions regarding the level of offshore wind that can be developed that would not be reliant upon the Irish grid for offtake, either through the use hydrogen electrolysers or Multi-Purpose Interconnectors, which could be used to transmit power directly to another jurisdiction. It is therefore critical that the outcomes of the OREDP2 process and associated requirements on EirGrid to ensure the timely and effective planning and delivery of future offshore grid networks.

To ensure that Ireland can benefit post 2030 from its natural wind and sea resources, we recommend the earliest publication of a holistic energy strategy, including but not limited the support, size, and timescales for an Irish green hydrogen strategy, which considers the how best to incentivise and deliver both demand for and supply of green hydrogen, both on the island of Ireland and for its future export potential.

RWE is currently working with strong partners from industry and the scientific community on more than 30 innovative green hydrogen lighthouse projects along the entire value chain within our core markets; (Germany, the Netherlands and UK). The projects include GET H2, NortH2, AquaVentus and the South Wales Industrial Cluster. [1]

The support for and development of a green hydrogen strategy must be developed in parallel with a strategy to support the development of and exploitation of the unique floating offshore opportunity available within Ireland's marine area. We recognise and agree there needs to a future pipeline of projects, upon which a genuinely Irish supply chain can be established, and future interconnection developed with Europe to support the EU's transition to a net zero economy.

[1] For more detail of our current projects, please visit our Hydrogen website: https://www.rwe.com/en/our-portfolio/innovation-and-technology/hydrogen/?