

OFFSHORE PHASE 2

SSE Renewables Consultation Response

March 2021



CONSULTATION ON OFFSHORE WIND PHASE 2

Introduction

SSE Renewables wishes to make this submission for consideration as part of the DECC Offshore Wind – Phase Two Consultation.

Who we are

SSE Renewables is the largest renewable energy developer, operator, and owner in Ireland's all-island Integrated Single Electricity Market. Since entering the Irish energy market in 2008, the SSE Group has invested significantly to grow its business in Ireland, with a total economic contribution of €3.8bn to the State's economy over the past five years. We have also awarded over €9 million to communities in the past 10 years as part of our community benefit programme.

SSE Renewables is building more offshore wind energy than any other company in the world right now. We are currently constructing the world's largest offshore wind energy project, the 3.6 GW Dogger Bank Wind Farm in the North Sea, a joint venture with Equinor and Eni. This is in addition to our role in bringing forward Scotland's largest and the world's deepest fixed bottom offshore site, the 1.1 GW Seagreen Offshore Wind Farm in the Firth of Forth, a joint venture with TotalEnergies. In the recent Scotwind process, SSE Renewables was awarded the rights, along with partners Marubeni Corporation (Marubeni) and Copenhagen Infrastructure Partners (CIP), to develop what will become one of the world's largest floating offshore wind farms off the east coast of Scotland.

Through our construction pipeline, SSE is leading the delivery of £9bn of new offshore wind farms in UK waters, which will support and create more than 3,500 supply chain and operations jobs in the UK.

We plan to bring our world-leading expertise in offshore wind energy to Irish waters with plans to deliver over 2 GW of offshore wind energy in the Irish Sea and Celtic Sea by 2030, including the Arklow Bank Wind Park off the coast of Co. Wicklow. We are also actively developing Braymore Point off the coast of Louth and the Celtic Sea array off the coast of Waterford.

These exciting plans for our work in Ireland, the UK, and internationally will propel SSE Renewables towards a new era of growth as we power the way to net zero. We view Ireland's potential as key to delivering on European and International green energy and decarbonisation targets and hope to see the State continue to adopt ambitious, solutions-focused approaches to realising this potential.

Executive Summary

SSE Renewables welcomes the consultation on Phase 2 for offshore wind in Ireland. We, along with many countries, are currently experiencing significant challenges with respect to our energy system, its security, and affordability. With global energy politics taking centre stage following the invasion of Ukraine, European States are beginning to revise their energy policies. Germany has, for example, started to re-examine its view of nuclear, while the EU is looking at ways to eliminate reliance on Russian gas.

In Ireland, this is a critical moment to promote indigenous energy security whilst accelerating net zero.

In simple terms, if we had already achieved our target of 5GW of offshore wind, we would be significantly more independent from Russian gas, closer to net zero, and with less expensive energy. With our wind, geology, and natural resources Ireland is better placed than many countries to be broadly self-sufficient in an electricity-focussed energy system centred around renewable energy.

Advancing Offshore Wind Projects

The rapid initiation of Phase 2 offshore wind is critical to Ireland's energy future, and MARA's role is key in processing applications for offshore wind development and providing resources to advance development. SSE Renewables is strongly of the view that credibility in the Irish offshore sector is equally vital. Speculative applications could clog up resources within the system if we do not establish robust early-stage project assessments. We support, therefore, an early competitive MAC process which should assess projects based on work done to date and likelihood of delivery.

To further aid this credibility, ORESS2 should include a pre-requisite for projects to have planning permission. Whilst we understand the circumstances that led DECC to proceed with ORESS1 ahead of projects having planning permission (e.g. the limited pool of Phase 1 projects), we should not forget that this is a highly unusual and risky approach. Repeating this approach in ORESS2 would exacerbate that risk and undermine the credibility and, potentially, the success of Ireland's offshore sector in setting down the foundations for swift, well-managed and resourced projects that will lead to the delivery of Ireland's climate targets.

Key recommendations

SSE Renewables has the following key recommendations in relation to the topics raised in this consultation:

- We recommend that our 2030 ambitions are increased to 7GW with clear "stepping-stone" targets between 2030 and 2050 created.
- Our preferred model, "Delivery Certainty," is Option B with planning permission required ahead of the ORESS2 auction.
- We support the use of a Deployment Security for all models, which should be based on MAC area applied for and held until replaced by a Bid Bond.
- We recommend the running of a pre-qualification process followed by a competitive MAC process using criteria as outlined in Table 2. This assessment should place a strong focus on the level of development progression and ability to deliver of a particular MAC Applicant.
- We recommend allowing projects to submit variations on their MAC application area, similar to that used in the AR4 process in England and Wales, to ensure seabed is awarded effectively in areas of high interest.
- We support retention of MACs for Phase 1 projects unsuccessful in ORESS1.
- We do not support the cancelling of all MACs post-ORESS2, and instead believe that MACs should be provided for 10 years as standard.

- We support the issuing of mutually exclusive provisional grid offers/GCAs to Phase 2 projects and believe that unsuccessful ORESS 1 projects should keep their GCA for ORESS 2 (whilst accepting that this could be mutually exclusive with another Phase 2 project).
- We recommend that there is a regional/nodal element to ORESS2 to ensure that all available grid capacity is awarded in ORESS2.
- We do not believe the concept of a “reserve list” is feasible and highlight that is unnecessary with a pre-requisite for planning permission to enter ORESS2.
- We strongly support facilitation of hybrid connections at large including those utilising offshore wind and thermal generation.
- We support provision of a “floating pot” in ORESS2 but believe this should be set above the 2030 5GW target or limited to the grid availability identified by EirGrid for the west coast.

Consultation Themes/Questions and other key issues

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?

Of the options presented in the consultation **SSE Renewables favours a model based on Option B, though with planning as a pre-requisite** ahead of ORESS2 (a change which, as outlined below, would provide significantly increased certainty of delivery).

In September 2021, the World Bank published a report on the “Key Factors for Successful Development of Offshore Wind in Emerging Markets” which provides recommendations for addressing the challenges faced when delivering large infrastructure like offshore wind in an emerging market. A key conclusion of the report is that *markets that have clear policy and robust frameworks to nurture an offshore wind industry can rapidly and significantly reduce the cost of energy*¹. One of the factors identified to reduce the cost of energy from offshore wind is to enable project developers to minimise project risk and attract low-cost finance by developing clear robust frameworks that enable bankable project delivery.

As currently proposed, Options A, C and D are not the optimum way forward to provide certainty to the sector. In addition, running a subsidy auction process in the absence of planning (in the way proposed in all four options above) also runs counter to this objective.

The table below outlines SSE Renewables’ understanding of the options outlined by DECC, and provides commentary on same. Based on our track record and extensive experience in delivering offshore wind and of bringing renewables projects through the planning system in Ireland, we provide here an estimate of the project delivery certainty under options A, B, and our own proposed model called “Delivery Certainty” (i.e., what percentage of projects signing an ORESS contract do we think will deliver). We do not propose a

¹ World Bank “Key Factors for Successful Development of Offshore Wind in Emerging Markets” <https://www.esmap.org/key-factors-for-successful-development-of-offshore-wind-in->

figure for Options C and D as we have fundamental concerns over how these models would work and are not convinced they would deliver projects successfully.

Table 1: SSE Renewables Assessment of Consultation Options

Option	Sequence	Delivery Certainty	Comments
A – Deployment Security	<ol style="list-style-type: none"> 1. Non-competitive MAC process 2. Grid Conditional Assessment 3. ORESS (used to determine success) 4. Planning 5. Grid Offer 	45%	<p>There is a significant risk under this option that, in the absence of competitive assessment, there will be a glut of unrealistic projects issued with MACs. This will tie up state and semi-state resources (ABP, EirGrid, MARA) and lead to more developers putting more money at risk, inflating costs in the sector.</p>
B – Competitive MAC process	<ol style="list-style-type: none"> 1. Competition for MAC 2. Grid Conditional Assessment 3. ORESS 4. Planning 5. Grid Offer 	60%	<p>Of the 4 proposed options, this is the “least worst”. It reduces the number of projects at an early stage in the process, removing those less likely to deliver, freeing up resources in vital bodies such as ABP, EirGrid and MARA. The competitive MAC process should be set up in such a way that developers with the most realistic chance of delivery are allocated MACs.</p> <p>We do, however, believe two changes should be considered:</p> <ol style="list-style-type: none"> 1. Planning as a pre-requisite for entry into ORESS2 2. A pre-qualification process directly ahead of MAC competition <p>We outline our rationale for point 1 below and point 2 in response to Question 3.</p>
C – Early ORESS	<ol style="list-style-type: none"> 1. Grid Conditional Assessment 2. ORESS 3. MAC Process 4. Planning 5. Grid Offer 	N/A	<p>Putting ORESS first will ask projects to construct detailed costings for multi-billion euro projects for sites over which they have no claim nor authority, with no differentiation between projects based on deliverability (given the absence of any competitive MAC process), and without any empirical data (site surveys, etc) on which to base those costings. Developers will be incentivised to bid for numerous seabed sites to increase their chances of success, further increasing the likelihood of spurious applications, and inflating project costs which will ultimately be passed back to consumers.</p> <p>Project attrition would likely be, as the consultation paper notes, extremely high and we have significant concerns over the cost effectiveness, deliverability, and overall credibility of the sector under this approach.</p>

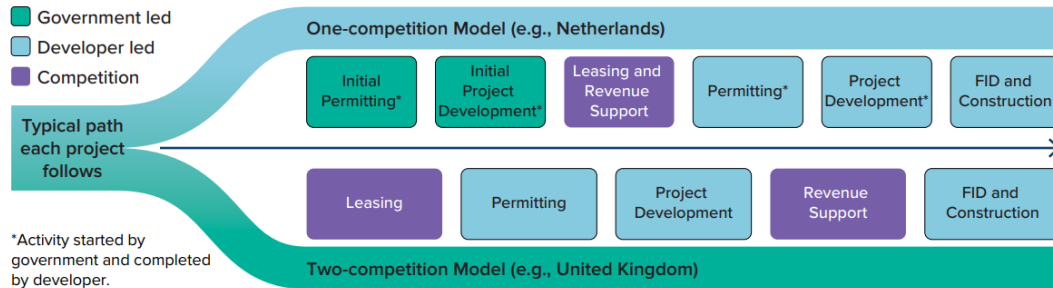
D – Early Enhanced ORESS 2	<ol style="list-style-type: none"> 1. Grid Conditional Assessment 2. ORESS (with criteria mimicking MAC Process) 3. MAC Process 4. Planning 5. Grid Offer 	N/A	<p>This option is likely to see the deficiencies evident in Option C. Though we note the MAC criteria in ORESS is intended to increase likelihood of deliverability, we do not have confidence that this would be robust enough to deter speculative projects.</p>
SSE Renewables Preferred Model – “Delivery Certainty”	<ol style="list-style-type: none"> 1. Pre-qualification 2. Competitive MAC process (Scotwind model) 3. Grid Conditional Assessment 4. Planning 5. ORESS 6. Grid Offer 	95%	<p>This process will eliminate spurious or unrealistic projects at initial stages and save valuable state and semi-state resources. A competitive MAC process will further ensure that no projects with overlapping seabed continue, reducing costs in the sector and wasteful spending at risk.</p> <p>This option would also provide confidence to investors, shareholders, stakeholders, and the industry at large, encouraging increased DevEx spend by credible projects and increasing supply chain confidence. This would have an associated benefit for competitiveness.</p> <p>Moving ORESS2 post planning increases developer certainty, decreases risk, and encourages low-cost finance. Delivery of Ireland’s offshore wind sector is best served by moving forward with projects that have demonstrated their deliverability. The most important determining factor as to whether a project is deliverable is whether it has achieved planning permission. This is also a fundamental component for the due diligence exercise on project financing.</p>

The implications of securing planning permission on overall Project Timelines

The process of securing planning permission (and associated surveys, EIA prep, engagement, etc) for a large-scale infrastructure project typically forms a sizeable proportion of the critical path to commercial operation (COD).

The World Bank report outlines case studies on the structure of auction and seabed allocation frameworks. Figure 3.3 below provides a good representation of a “one-competition” vs a “two-competition approach. A key feature of ‘single auction’ structures is that Government Authorities undertake **significant up-front development works** (site selection, site investigations, initial permitting, etc.) and de-risk the projects to a point where developers have the clarity and information required to submit firm bids based on known facts.

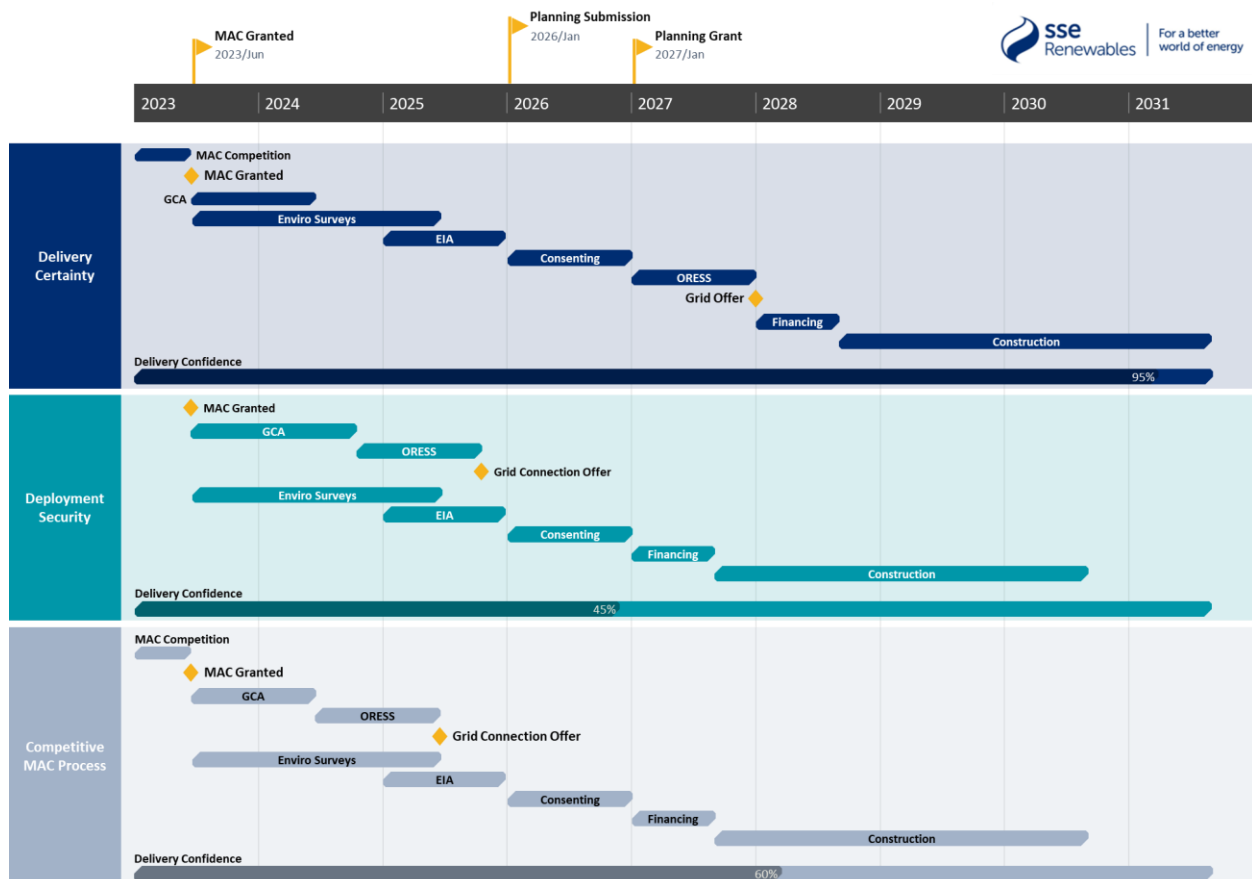
FIGURE 3.3: Overview of frameworks and timing of key competitions in one- and two-competition models



It is our understanding that the Irish Government does not plan to undertake such up-front development works, hence leaving the two-stage process as the logical way forward. On this basis, Option B (with the additions suggested by SSE Renewables above) is the most appropriate remaining delivery framework. Should Ireland want to move to something more like the Dutch model for the Enduring Regime post Phase 2, this should be under-pinned by state led project development and permitting activities in order to be successfully operated.

Realistic view of Delivery Timelines

We note that one key rationale DECC has expressed for placing ORESS ahead of planning permission is to compress overall timelines. To address this, we have mapped out realistic project timelines for Options A, B, and SSE Renewables' preferred Model "Delivery Certainty" below:



For each option, **planning permission defines the critical path to commercial operation**. A project that does not receive planning permission cannot deliver, and we do not believe it is sensible to set up the process without stipulating that securing planning permission is a key criterion.

The options above outline that, all being well, Options A and B could see commercial operation by 2030. This is, however, with a significantly reduced certainty of delivery. **We see a significant likelihood that multiple projects will be undeliverable under Options A (Deployment Security) and B (Competitive MAC)**. The perceived benefit of delivery by 2030 associated with Options A and B will likely not, therefore, constitute the benefit it appears to.

We would also highlight our experience with Phase 1 which is that **industry claims of delivery under MAP by 2026/27 were rapidly pushed out by the time it came to determining ORESS1 T&Cs**, noting the myriad of risks inherent with holding an auction ahead of planning. We have no reason to expect the same will not be true for ORESS2 and we firmly believe that if the auction is scheduled ahead of planning permission, industry will (justifiably) point to the same risks and strongly advocate for delivery timeframes post-2030.

Whilst the Delivery Certainty scenario would see COD in 2031, 100% of the projects progressed under this scenario would be delivered and **there would be certainty of exactly what would be delivered immediately after the auction concludes, with FID in 2028, and first energisation pre-2030**.

DECC has suggested that a “Reserve List” could be set up to deal with this issue of attrition post-ORESS in A and B. We have significant reservations as to whether such an approach is viable, as outlined elsewhere in this submission. Nonetheless, even if this approach is workable, by the time it is known that a project cannot process and a project on the “Reserve List” is reactivated, it is likely to deliver several years beyond 2031, meaning that **Options A and B are highly unlikely to deliver the time benefit they appear to**.

Finally, the above timelines do not consider Grid lead times, with the World Bank report noting that, **grid connection dates are often on the critical path for project completion**³.

On this basis, there is **no clear programme benefit** (with significant downsides apparent instead) to running a process that places an auction ahead of planning permission. Rather, there is a significant benefit to approaching this auction with planning permission as a pre-requisite given its fundamental significance as a predictor of deliverability. Such a requirement would provide programme certainty for all stakeholders and cost certainty for developers and the supply chain, which, in turn, would drive down costs on behalf of the consumer.

SSE Renewables’ Recommendation: Adopt the preferred List model of “Delivery Certainty,” i.e. Option B with planning permission required ahead of the ORESS2 auction.

³ <https://www.esmap.org/key-factors-for-successful-development-of-offshore-wind-in-> - Page 70

Increasing our targets

Whilst the targets of 5GW by 2030 and 30GW by 2050 do not form part of this consultation, it is interesting to note the World Bank observation that “**clear, long-term targets for offshore wind deployment volume are helpful in supporting policy statements**”⁴.

We understand that the 5GW by 2030 target was established based on a view taken in 2020 of the grid limitations that would prevent 2030 delivery. Projects of this scale take over 10 years to deliver, and in the interim we cannot wait until we have clear sight of additional grid delivery to increase targets.

Instead, we must develop projects and grid in parallel to enable delivery by 2030.

Furthermore, we are not sure that projects expected to deliver beyond 2030 will be fully dependant on a grid connection equal to the MEC of the project. By 2030, existing technologies and solutions (e.g. hybrid arrangements) will have been fully commercialised and new technologies such as power to X and hydrogen will start to deliver solutions. Both of these advancements will have implications for a project's grid connection, reducing the need for grid capacity and/or increasing utilisation.

Finally, we must avoid a cliff-edge in targets, as this creates uncertainty for investors and makes the market less attractive to the supply chain, hindering the development of local supply chains. We should, instead, set stepping-stone targets between 2030 and 2050 (as have been done in other markets) to encourage the long-term investment needed for Ireland to meet its decarbonisation ambitions e.g., 7GW by 2030, 10GW by 2035, 15GW by 2040, 22GW by 2045, and 30GW by 2050.

SSE Renewables' Recommendation: Increase our 2030 ambitions to 7GW, insert clear “stepping-stone” targets between 2030 and 2050, and call on EirGrid to rise to the challenge of delivering the grid infrastructure needed to support the realisation of these targets.

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 on the basis of planned capacity, what rate should apply?
- 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?
- c. Under what terms should this security be drawn down?
- 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 be beneficial for the deployment security to be rolled over towards the RESS performance security? How best this be managed?
- e. What other terms should apply to this security?

SSE Renewables does not support Option A but **does** see a potential role for a deployment security in Option B or our own proposed “Delivery Certainty” model. A deployment security would be an additional way of focussing on deliverability and putting pressure on speculative, unrealistic projects. We do not,

⁴ <https://www.esmap.org/key-factors-for-successful-development-of-offshore-wind-in-> - Page 14

however, believe a security in itself could achieve these aims and as such do not support Option A. We believe this approach would result in inefficient use of state resources, clog up the state and semi-state processes, and create a significant opportunity for speculative development, regardless of the level of development levy/security.

If a deployment security is introduced, it should be related to the size of the MAC area rather than capacity of the proposed project. This provides a financial incentive against projects hoarding seabed.

In our own preferred model (where planning permission comes before ORESS), the deployment security should be drawn down if a project does not submit a planning application within an agreed and realistic timeframe post-MAC. In the case of an unsuccessful planning application, the security should be returned, and if a planning application is successful, the security should be drawn down where a project does not bid into ORESS. At the point of ORESS the deployment security would be replaced by a bid bond.

SSE Renewables' Recommendation: Use a Deployment Security for all models based on MAC area applied for and held until replaced by a Bid Bond.

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?*
- b. *Should a seabed levy auction be included in this assessment? What weighting should the auction result have?*
- c. *Should a deployment bond be maintained under this option? Why, or why not?*

SSE Renewables welcomes **Option B**, though with the addition of planning permission as a pre-requisite to entering an auction.

The competitive MAC process may also benefit from a two-stage approach (even where the two stages are run side by side).

1. Pre-qualification
2. Competitive MAC process

Pre-qualification process

The current level of development activity in the Irish offshore wind sector is likely to give rise to considerably more Phase 2 MAC applications when compared to Phase 1. This would be further compounded by uncertainty over the Enduring Regime, which may result in each project seeking a MAC at the earliest possible point. This is likely to cause bottlenecks in assessing applications and, in turn, allocating MACs arising from the resource requirements from MARA, EirGrid and other critical stakeholders. This situation would be exacerbated by the fact that the same set of developers will likely be engaging with MARA to secure licences to facilitate site investigations.

To address this risk, SSE Renewables proposes a pre-qualification process for Phase 2 MAC applicants, to ensure they meet set capability criteria and can demonstrate a credible project that can be delivered by 2030. This would ensure that the subsequent competitive process focusses on those MAC applicants and

ORE projects with the greatest ability to deliver in line with the 2030 target. Furthermore, it manages the resource requirement from MARA, EirGrid, and other critical stakeholders during this process.

We propose this process is structured as follows:

1. Confirm the Pre-qualification process for entry into Phase 2 MAC process – Q3 2022

The supporting work to define the process and criteria would be administered by DECC with a tender undertaken for potential for independent, experienced, third-party support. It is understood that Section 80(2) (a) and (b) of the Maritime Area Planning Act allows for Phase 2 criteria and the process to be set by DECC ahead of MARA enactment. It is recommended that a pre-qualification process and criteria are set in regulations to allow for MARA to be prepared on day one for the Phase 2 project process.

2. Finalise and publish in regulations, the pre-qualification process and competitive Phase Two MAC criteria – Q4 2022

To ensure MARA is able to undertake a competitive MAC process directly following establishment, agree criteria by end-2022.

3. Establish MARA and run the pre-qualification and competitive MAC process – early Q1 2023

Either separately or adjacent to each other, MARA to run pre-qual process for Phase 2 followed immediately by a MAC assessment process.

Competitive MAC process

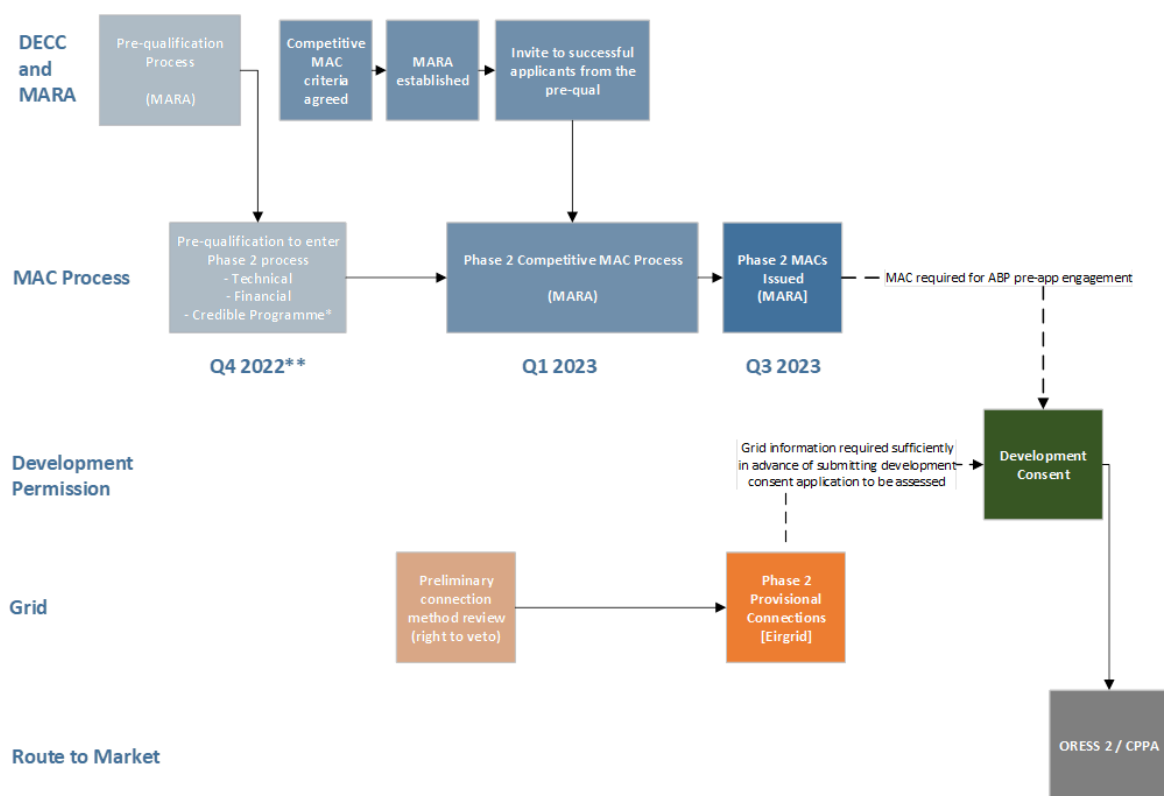
In line with international experience, SSE Renewables proposes that a total score assessment is used for the Phase 2 MAC process. Within this process, qualified MAC applications compete with one another, ensuring the projects that are most progressed and have the greatest chance of delivery by 2030 are awarded.

This would also address the issue of **overlapping or competing (from a marine space perspective) MAC applications**. With respect to overlapping bids, we must consider what happens where two projects (or more) overlap and one application scores the highest in the assessment. This applicant would be awarded a MAC for their applied area. Rather than other applicants being, as a result, completely ineligible for a MAC, we recommend that in common with the England and Wales AR4 process, applicants are able to submit variations of area on their bids. These variations would be submitted in order of preference and should be required to have at least 50% of the area in common with their 1st preference “master” bid. Where a project in a competitive area is awarded a MAC, and this overlaps with another project, that project could then default to its next variation of area until (if possible), there is no overlap (provided that project meets the minimum threshold to be awarded a MAC). We would be glad to communicate more with DECC on this proposed mechanism which we view as important to ensure that seabed is awarded effectively in areas of high interest.

To maintain a 2030 delivery timeline, developers will have had to progress critical path surveys and studies (environmental and technical) that have a long lead time or must be carried out over an extended period (e.g. aerial surveys for birds and marine mammals, which are required over 24 months).

Overall sequence:

To provide further context, the envisaged sequence and subsequent development pathway for Phase 2 is set out in the figure below.



*Support from an independent third party consultant may be considered as part of the credible programme assessment

** In the event that MARA is established by Q4 2022

Proposed assessment criteria

The proposed assessment criteria for the (i) pre-qualification process and (ii) competitive MAC process are set out in Table 2 below:

Table 2: Proposed pre-qualification and competitive MAC assessment criteria

Criteria	Pre-qualification assessment	Competitive MAC assessment
Consistency with the National Marine Planning Framework	Pass / Fail	Pass / Fail
Consistency with EirGrid’s latest plans, i.e. Shaping Our Electricity Future	Pass / Fail – subject to notes below	Pass / Fail – subject to notes below
Financial and Technical capability	Pass / Fail	Pass / Fail
Preparedness / Deliverability: Site Investigation or other preparatory works undertaken, including stakeholder engagement	Programme to show credible 2030 delivery	Programme to show credible 2030 delivery + weighted assessment of development progression

An auction for the seabed levies to be paid by MAC holders (Note: No auction is required under this option)	Capped option/uniform levy	Uniform development levy applied - in line with Phase 1 MAC development criteria
Project Information		Project Information provided
Project Development Plan		Project Development Plan submitted showing credible delivery plan including consent
Development Budget		Development Budget to align with PDP
Resource Plan		Resource Plan submitted showing clear resource with requisite expertise
Innovation		Outline of innovation and research support assessed in line with set criteria

SSE Renewables recommends that a points-based system for the competitive MAC process, like that used in the recent ScotWind process, using the criteria set out in Table 2 above. Where there is no overlap between projects, developers should be required to reach a minimum number of points to be successful. Where there is overlap, the developer that gets the highest points would win (noting our suggestion above on applicants submitting variations on their applied for area in line with the AR4 process).

We provide further rationale in relation to the above criteria below:

- **Demonstrable consistency with EirGrid’s latest plans, e.g., Shaping Our Electricity Future**

Shaping Our Electricity Future (SOEF) was applicable at a particular point in time and was reflective of a lower overall RES-E target (70%). It also presented one scenario or grid model that could support the 5GW target, although it is important to understand that whilst the regional grid limitations are understood, there are various nodes or connection methods within an interacting region that can utilise this capacity. As such, strict adherence to both the capacity and location of this capacity is not reflective of the overall system within the 2030 scenario.

At the pre-qualification stage, it is expected that a demonstrable high-level compliance (of each project in isolation) with the SOEF from a regional perspective would be sufficient to meet the pass/fail criteria.

To ensure that projects can demonstrate an ability to connect the ORE Project, it is proposed that engagement with EirGrid in advance of the competitive MAC process is facilitated with potential Phase 2 MAC applicants. This engagement would provide the opportunity for EirGrid to flag incompatibilities or potential opportunities/enhancements within its plans and help inform developers on the formation of a preferred grid connection method, supporting their development consent activities.

- **Financial and Technical capability**

DECC has recently concluded a consultation on the technical and financial assessment of Phase 1 MAC applications, to which SSE Renewables provided a substantive response. This submission indicated that SSE Renewables views the proposed criteria set out by DECC as reasonable (bar some specific concerns outlined in our response).

The criteria, barring several specific changes we have recommended, reflect suitable pre-qualification assessment criteria for the Phase 2 projects.

- **Site Investigation or other preparatory work, including stakeholder engagement**

To assess the progression of projects through their development stage, several additional criteria would be useful. This might include:

- Commencement and completeness of critical path studies such as long lead aerial surveys, which are required over a 24-month period
- Progression of other preparatory works including site investigation, design works, boundary refinement etc.
- Demonstration of the site selection process the MAC applicant has undertaken to identify the ORE Project
- Cumulative impact considerations.

- **An auction for the seabed levies to be paid by MAC holders**

Ireland should avoid the 'highest bidder wins' format favoured in The Crown Estate Round 4 auctions as it is a blunt assessment. The World Bank report provides observation (page 46) on the results from the recent UK England and Wales Round 4 (2020-21) leasing arrangement, where the process was focussed on securing option fees, states

[The] process yielded much higher option fees than anticipated however it is relevant for governments to note that such fees are likely to be reflected in consumer bills.

In general, unnecessary inflation in the cost of renewables should be strongly opposed given it will make decarbonisation of Ireland's economy more challenging and more expensive.

We recommend, therefore, that fees and levies be determined using a set formula and should not be used as an auction parameter. If it were to feature as an auction parameter, amounts payable should be capped to avoid increased costs to developers and minimise cost to consumer. ScotWind involves a one-off payment upon award in addition to an annual rent. We recommend that any one-off payment be based on the relationship between site area, capacity, and density (e.g., EUR/MW or EUR/KM²) and that it be capped to avoid spiralling prices and cost to the consumer. Annual rent should be based on either an agreed pre-construction energy yield prediction or actual energy yield output and should commence once the project has been constructed.

- **Innovation**

The criteria for the awarding of MACs should also reward projects that propose innovative solutions. The limiting factor for deployment of offshore wind will be cumulative impacts, (ecological, environmental etc) and the amount of available grid. Projects that propose solutions that will minimise the ecological/environmental impact or offer additional grid support services/mechanisms (allowing more grid capacity to future projects) should, therefore, be rewarded for this. Innovation could also extend to technical and financial innovation.

Finally, MAC applications that have supported research and development in Ireland to date, should also be scored higher with respect to this innovation criteria.

SSE Renewables' Recommendation: Run a pre-qualification process followed by a competitive MAC process using the criteria outlined in Table 2. This assessment should place a strong focus on the level of development progression and ability to deliver of a particular MAC applicant.

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

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

SSE Renewables supports the retention of MACs for Phase 1 projects. This is essential to ensure any project that did not clear within the ORESS1 auction can continue with the development consent process, which will be in process (or already granted) via ABP. It takes approximately 10 years to deliver an offshore wind project and, even if MACs are awarded by mid-2023, Phase 2 projects will need to have completed significant development work at risk to stand a chance of delivery by 2030. Allowing Phase 1 projects to participate in a second ORESS is, therefore, eminently sensible in increasing our likelihood of hitting decade-end targets.

Failure to secure a winning bid within ORESS1 would not necessarily be because the project is immature or financially unviable, but simply because another project bid was lower. Additionally, we note that 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. Requiring these projects to reapply for a MAC would undermine investor confidence, increase the pressure on scarce MARA resources, provide another opportunity for legal challenge, and decrease the attractiveness of the Irish offshore market.

SSE Renewables' Recommendation: We support retention of MAC for Phase 1 projects unsuccessful in ORESS1.

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?*
- b. *Would this approach incentivise deployment and/or discourage hoarding of the maritime space?*
- c. *Would this approach discourage MAC applications in Phase Two from projects with poor pre-2030 deliverability?*

The most effective way to ensure delivery is to ensure that only well developed, robust projects progress through the development stages (via a **robust process** for allocation of seabed) and include a requirement that planning permission be secured before entry into any auction. This would de-risk projects as they progress through the development process and significantly increase Delivery Confidence.

Conversely, attempting to set up a “**self-governing**” industry by imposing unnecessary risks on developers from the outset, such as MACs expiring prior to the enduring regime, is not an effective replacement for a robust process, is not best practice worldwide, and **will only encourage speculative behaviour**.

Large scale projects such as these take approximately 10 years to deliver, and a 10-year development stage MAC should not be regarded as hoarding of seabed, provided the development of the project is progressing. The best way to avoid hoarding of maritime space from the outset is to implement and enforce a robust process for allocating MACs, including setting clear and realistic timelines.

We do not think the risk of a MAC being rescinded would discourage speculative behaviour. Rather, only robust requirements set out from the outset can achieve this. Having loose criteria for allocating MACs will encourage speculation by developers, and lead to the progression of unrealistic and ill-refined projects, clogging up the planning and grid allocation systems.

Providing MACs for a development period of 10 years is a sensible step that will enable projects unsuccessful at ORESS2 to have another chance for progression under the enduring regime should areas identified for offshore renewables be compatible with these projects. Rescinding MACs unilaterally could be self-defeating in removing potential capacity from the pipeline and setting the offshore sector *en masse* back to square one.

SSE Renewables’ Recommendation: We do not support the cancelling of all MACs post-ORESS2, and instead believe that MACs should be provided for 10 years as standard.

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?

The Shaping Our Electricity Future Roadmap has identified optimal regions/locations to connection to deliver 5GW of offshore wind by 2030 to the Irish Grid. EirGrid’s roadmap does not, however, provide any additional capacity for offshore wind connections above 5GW in the 2030 timeframe. Given that the grid capacity is only available in specific regions and there will need to be a competition factor built into ORESS, it is inevitable that grid capacity will need to be over-allocated and EirGrid will need to issue mutually exclusive GCAs projects in areas of limited grid capacity.

- Key to this approach is the prequalification criteria, which can be used to ensure that finite resources are not overwhelmed in the process, prioritising those projects with the greatest chance of reaching COD by 2030.
- Phase 1 projects that have been unsuccessful in RESS1 should automatically qualify for ORESS2 and keep their original GCA. However, it is acknowledged that EirGrid may also allocate a mutually exclusive GCA to a Phase 2 project if one qualifies in the same area.

Tying the award of full grid offers to auction results

- Like Phase 1, where projects that are successful in ORESS2 are awarded, full grid offers are offered based on their provisional grid offer/GCA.

- Planning consent should be a prerequisite for ORESS2 qualification. A provisional grid offer is, therefore, essential so that developers can progress environmental surveys, landowner sign-up, consent applications and ORESS bids based on a clear understanding of their grid connection.
- The GCA process should commence following Phase 2 pre-qualification and could run in parallel with the MAC process. Developers can progress their consenting process after receipt of both.
- It is not possible to award full grid offers at competitive locations *via* ORESS2 and CPPA. Once the grid capacity has been awarded through ORESS2 there will no longer be a CPPA route to market for the losing bids at these nodes because the capacity will have been allocated through ORESS. There is also insufficient time to allow projects the opportunity to seek CPPA in advance of ORESS as this would further push out offshore delivery timelines.
- CPPAs would still be a viable route to market for a Phase 1 project unsuccessful in ORESS1 because they will be ahead of Phase 2 projects in the consenting process and would have time to progress a CPPA (or alternative funding mechanism) prior to ORESS2 pre-qual opening. If successful in securing an alternative route to market before ORESS2 pre-qualification, then EirGrid could issue a full grid offer for the CPPA capacity and this capacity could be removed from the ORESS2 auction.
- An appropriate validity period for a provisional grid offer must acknowledge that some projects will fail to secure a route to market in ORESS2. Automatic termination or short validity periods is a disproportionate response given the investment by developers in a project at this point. Projects should be permitted to retain their MAC with sufficient time to explore a Power to X or a non-firm P2X hybrid route to market.

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?

- No, based on EirGrid's views detailed in SOEF (not something that we agree with), offshore capacity is limited to 5GW in the 2030 timeframe: therefore, it does not make sense to allow a parallel ORESS2 and CPPA process where there is only firm capacity for a single project.

SSE Renewables' Recommendation: We support the issuing of mutually exclusive provisional grid offers/GCAs to Phase 2 projects and believe that unsuccessful ORESS 1 projects should keep their GCA for ORESS 2 (whilst accepting that this could be mutually exclusive with another Phase 2 project).

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

- 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?*
 - It is recommended that competition between projects targeting the same grid node or region be *via* the ORESS 2 auction, where development permission is an eligibility criterion. This will increase the likelihood that available capacity will be utilised.
 - As there are many projects competing for grid access in the transition phase, there is likely to be a role for EirGrid to manage 'over lapping project scope.' Where projects are competing for access to the same Transmission Station (clear overlap of project scope), it is recommended that EirGrid identify a subgroup. Subgroup members submit their Onshore Grid Infrastructure (OGI) design to EirGrid and, if there is overlap in the OGIs, the subgroup members are afforded a set period to come to an agreement

on the consent of common scope. If they cannot come to any agreement, EirGrid would step in and take the lead on the development permission associated with the overlapping scope elements.

- As discussed in Q6, capacity is limited and will be oversubscribed for ORESS2. It will, therefore, be necessary to auction capacity at nodes and in regions in ORESS2. Projects should have to clear the overall auction and if more than one project clears in an area with limited capacity then the lower bid would automatically be removed from the stack and replaced by the next highest bid that does not compete with the remaining projects that have cleared the auction.
- b. Should any nodes or regions be reserved for non-ORESS routes to market?*
- As previously discussed in Q6, no nodes or regions should be reserved for non-ORESS routes to market. This would reduce the competitive tension in ORESS2 and, if an alternative route to market is not secured, 2030 targets could be put at risk.

SSE Renewables' Recommendation: We recommend that there is a regional/nodal element to ORESS2 to ensure that all available grid capacity is awarded in ORESS2.

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.

- 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?*

A "Reserve List" is an overly complex solution for industry, the consideration of which is brought about by the uncertainty created through sub-optimum Options for progressing Phase 2 of the offshore wind industry that would appoint "winners" too early in the development cycle without ensuring they are suitably de-risked. Put simply, it is neither a feasible nor necessary proposal.

A well proven and better sequence, which both significantly increases confidence in delivering 2030 targets and mitigates the risk of attrition after ORESS2 (thus avoiding the need for reserve projects), has been outlined in our response to Q3 above, namely to include development permission as part of the ORESS2 entry criterion.

A reserve list system may seem like an attrition mitigation measure. We have, however, significant concerns that this would not work in practice and would not support the policy objective of securing delivery by 2030.

- There will be a significant cost to developers in holding a project in reserve, namely land option costs, resources, cost of funds spent to date, ongoing enviro surveys and engineering works, etc; costs which developers will not pay for a project that they have no guarantee of being able to deliver.

- There will also be significant challenges and obstacles to holding a project in reserve, namely the inability to indefinitely hold in place available manufacturing slots, vessels, delivery teams and finance.
- Project costs will change over time, driven by market conditions, inflation, long term electricity pricing, and cost of funds. This will make it almost impossible for a project to hold an ORESS bid valid for more than a few months.
- It is unclear how long it might take for a preferred project to relinquish their capacity, or under what scenarios this would be acceptable. Therefore, even if all the foregoing issues could be addressed, a project put on hold in 2023 and re-commenced in 2027 (once it became obvious that another project had failed) could not deliver within the original timelines envisaged at the time it was put on hold.
- Finally, noting the transition to a plan-led approach and the suggestion that any Phase 1 or Phase 2 project that has not advanced by 2030 would lose their MAC, the risk of committing any resource into a 'Reserve Project' is further increased.

Government's 2019 and 2021 Climate Action Plans have placed a limit of 5GW by 2030 on EirGrid's grid ambitions. This approach effectively constrains the further development of offshore wind by placing a cap on offshore development, which can be seen by the outcome of EirGrid's shaping our electricity future report (SOEF). Instead, EirGrid should be considering the anticipated pipeline of future offshore wind to plan for efficient integration into the onshore network⁵, thereby enabling delivery of at least 5GW of offshore wind, and providing a path to delivering c7GW by 2030. SOEF has effectively sweated the existing assets to their limits without developing any significant new infrastructure and includes little or no futureproofing of the network to provide a path for delivery of projects beyond 5GW.

It is regrettable that EirGrid did not proceed with the Grid Link project, a 400kV link from Knockraha-Great Island-Dunstown. This would have future proofed the network for 2030 targets and released additional capacity in the South and West for Offshore. It is also disappointing that EirGrid did not revisit this project or a variation of it in the first iteration of SOEF, especially now with two planned interconnectors in the region. The decision to omit this, and other, projects from SOEF reinforces the "cliff-edge" created by the lack of post 2030 stepping stone targets, creates uncertainty for investors, and will hinder the development of local supply chains.

SSE Renewables' Recommendation: The concept of a "reserve list" is not feasible and it can be avoided through the inclusion of a pre-qualification process and a pre-requisite for planning permission to enter ORESS2.

SSE Renewables' Recommendation: The approach outlined in SOEF (sweating assets to their limits and avoiding significant investment / projects / future proofing) has reinforced the cliff-edge created by the lack of steppingstone targets beyond 2030. This has effectively placed a cap of 5GW on the amount of MW realisable by 2030. SOEF should be revised with a view to maximising the amount of offshore wind that could be connected to the system and delivering.

⁵ <https://www.esmap.org/key-factors-for-successful-development-of-offshore-wind-in-> - Page 92

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?*

Option D is not a sensible approach to establishing Phase 2 of the Ireland's offshore wind industry.

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?*
- 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.*
- 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?*
- d. *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?*
- e. *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 a principle, SSE Renewables **supports facilitation of hybrid connections** regardless of technology. Hybrid connections enable the grid and grid connection to be utilised as effectively and efficiently as possible to facilitate technologies which can be complimentary, both to each other and to the operation of the electricity system.. Much work has previously been carried out in both Ireland and in international markets to explore the concept of hybrid units, hybrid sites, and hybrid connections. This work does not differentiate between the technologies that form a hybrid grid connection when determining the applicable policy, therefore, hybrid connections of all types of generation should be treated in the same manner.

With respect to the specific hybrid model proposed in this consultation:

- Most of the 5GW by 2030 target will likely be met by bottom-fixed offshore wind, however, we must maximise the Phase 2 opportunities to deliver at least beyond 5GW as an enabler for the 30GW by 2050.
- Floating offshore wind will be delivered in Scotland by 2030. Ireland is, however, at least 2 years behind ScotWind, specifically with respect to MAC allocation and grid delivery given locational considerations.
- The best chance of delivering floating offshore wind in Ireland by 2030 is by using existing grid connections in a hybrid type arrangement to accelerate what would otherwise be a post 2030 delivery.

We, therefore, support hybrid projects and the concept of re-using existing grid to facilitate offshore wind projects, along with battery storage, thermal plant, and interconnectors. Hybrid solutions would also go to addressing the security of supply issues, providing a steady, clean, green supply of energy, while

minimising onshore planning and environmental impacts. We believe that facilitating hybrid solutions will have a strongly positive effect on delivery of our targets and will be of benefit to the consumer.

It is also true that the facilitation of hybrids has been a clear policy objective for some time given its inclusion in the CAP annex of actions. Progress to date has, however, been frustratingly slow. Action is required to facilitate all hybrid projects, including offshore hybrids, and to ensure that all regulatory hurdles are removed to allow these projects to progress. The primary regulatory hurdles that must be given immediate attention to enable these connections are:

- Allow dynamic sharing of MEC between units behind a single connection point
- Multiple legal entities behind a connection point
- The cap on over installation at connection of 120%

From a technical perspective, connecting offshore wind projects to the system *via* a thermal power station should have no additional impact on the system beyond what would occur if an offshore wind farm were connected to a similar location using a standalone connection. The technical implications are driven by locational issues rather than use of hybrid/non hybrid methodologies. An offshore connection at a thermal plant should, therefore, have no implications for the reliability of the thermal plant in its own right.

SSE Renewables' Recommendation: We strongly support facilitation of hybrid connections at large, including those utilising offshore wind and thermal generation.

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

- What technologies should be provided with special allowances and why?*
- 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?*
- Should these types of projects also be required to deliver by 2030?*
- 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?*

SSE Renewables supports potential measures to facilitate floating wind, though these should be carefully considered.

With respect to the concept of a preference category for floating offshore wind, we would cautiously support such a measure but it must be carefully considered with respect to the potential benefit versus the additional cost to the consumer resulting from a more expensive technology (in comparison to fixed bottom).

As noted in our response to Q1, Government should increase its 5GW target to 7GW and, to that end, establish a **1GW pot for floating wind in addition to the existing 5GW target**. If established, this pot should focus on strategic locations suitable for kick-starting the floating and hydrogen industries in Ireland.

An alternative approach for such a preference category or “pot” would be to limit it at the likely grid availability for the west coast as outlined in EirGrid’s SOEF. This is currently set at 390MW and may be

revised upwards in the 2022 version. Given that fixed bottom offshore wind will not be possible on the west coast, this could help ensure that west coast capacity is utilised in ORESS2.

We do not currently envisage a need for a ring-fenced MAC process for floating offshore wind given our recommendation to assess projects using pass-fail criteria and then other weighted considerations. It is unlikely there would be any impediment to well-developed floating wind projects meeting these requirements other than the level of grid outlined in EirGrid's "Shaping our electricity future" document. As we have outlined elsewhere in this response (Q7), more MACs will need to be provided than grid capacity available with ORESS2 used to determine who gets the connection at a particular node.

SSE Renewables' Recommendation: We support provision of a "floating pot" in ORESS2 but this should be set above the 2030 5GW target or limited to the grid availability identified by EirGrid for the west coast.