

Future Framework consultation
Offshore Environment and Future Development
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cc:

To whom it may concern,

Ocean Winds & Bord na Móna Submission on the Draft Offshore Renewable Energy Future Framework Policy Statement

Ocean Winds & Bord na Móna welcome the opportunity to provide feedback on the Offshore Renewable Energy Future Framework Policy Statement during the public consultation period and following the online public information sessions on same which took place in February 2024. In the consultation document and during the online information sessions, Department of Environment, Climate and Communications (DECC) officials noted they were keen to obtain industry views on the following themes:

- 1. Decarbonising our economy in line with legally binding national targets and international climate ambitions**
- 2. Ensuring long-term energy security**
- 3. Developing green industrial opportunities for ORE such as export markets**

Our response offers some general comments on these items in addition to the consultation questions. A Summary of the points raised in our response are below:

- We are supportive of the Government's move to a Plan-Led model for offshore wind and believe it is the most effective way to ensure delivery of policy objectives.
- We welcome the re-confirmation of the offshore wind targets for 2040 and 2050 of 20 GW and 37 GW respectively and the thorough suite of technical and economic analysis carried out as part of the formulation of this policy statement underpinning these figures. The intention to procure 11.5 GW of additional offshore wind capacity before the end of the decade will

ensure we are on track for delivery of the 2040 targets and is a very positive statement of Ireland's intent to deliver. Policy and regulatory stability are key to maintaining industry and investor confidence and we would urge that a robust implementation plan is developed to ensure the entire system from DMAP to project energisation is aligned to deliver in a consistent and repeatable manner.

- DMAPs are the foundation of all offshore wind in a plan-led model. The DMAP process for all coasts needs to be accelerated with priority on the east coast as the next DMAP or DMAPs where there is significant bottom fixed potential which can be realised in a cost competitive manner. From our engineering assessments, we believe that offshore wind can be delivered much cheaper on the east coast even when compared to potential bottom-fixed installations on the south coast due to different seabed and installation conditions, and shallower waters. The east coast is home to the bulk of our energy demand and is proximate to Britain and further offshore development would align with Government strategy to develop further electricity interconnection to Britain.
- Identification of grid capacity for offshore wind connections in the period between 2030 and 2040 is a critical input to inform capacity available for ORESS successor auctions. This work needs to take account of the large forecast increase in domestic electricity demand and the plans for increased interconnection to a number of countries as outlined in the Interconnector Strategy.
- For non-grid limited offshore capacity, we envisage the early opportunities centre around co-location with a large demand customer close to the onshore landing point of the ORE development – most realisable along the east coast initially. A level of grid import access to supply the demand when the wind isn't blowing, and export when the offshore wind site is generating more electricity than the demand customer requires would be needed to make this proposal feasible. In the medium term we do not believe hydrogen production can justify the development of an offshore wind farm due to the small market for the product in Ireland, lack of transportation infrastructure to export it and the likely high costs of production.
- We believe corporate power purchase agreements (CPPAs) have a lot of potential for the deployment of renewables and also to address the growing needs for clean renewable energy by large industrial companies. We see potential for projects which are fully supported by CPPAs or alternatively a blend of ORESS and CPPA support is also feasible. The assignment of grid access is a key consideration for CPPA projects, and it may be logical to link the grid access for CPPAs with the allocation of seabed rights and any competitive process related to that.

- We support prioritisation of cost-competitive, proven technology in the medium term with a focus on bottom fixed technology on the east and south coasts.

1. Introduction to Ocean Winds & Bord na Móna

Ocean Winds & Bord na Móna entered into a joint venture agreement for the development of offshore wind in Ireland and therefore welcome this opportunity to provide input for the development of the Offshore Renewable Energy Future Framework Policy Statement. The Ocean Winds-Bord na Móna Joint Venture is a long-term partnership which goes beyond 2030 targets. Ocean Winds & Bord na Móna seek to use the partnership to enable Ireland to achieve its 2050 climate targets and become a world leader in clean energy through the development of a native industry in Ireland.

Bord na Móna brings its long and proud history of serving Irish communities with their energy needs. Ocean Winds brings its international expertise and experience in delivering innovative renewable energy solutions to help secure our energy future. The Joint Venture with Bord na Móna complements Ocean Winds' skills in the offshore renewable energy space. Ocean Winds has over 10 years' experience in the sector, and is involved in projects across the world, from stakeholder engagement at the start of the process right through construction and on to the operation of offshore wind farms.

2. Ocean Winds & Bord na Móna Response to Questions in the Offshore Renewable Energy Future Framework Policy Statement

Pathway to success

1(a). Has this section adequately identified the general key priorities for ORE delivery in Ireland? Are there additional priorities that should be integrated into the holistic, plan-led approach?

1(b). Has each key priority been adequately described and considered all relevant components?

1(a) & 1(b) - The early stage of development of the offshore wind industry in Ireland and the move to a plan led approach creates an opportunity to develop an efficient ORE in Ireland. We believe that if executed well this can create a cost competitive ORE industry and bring substantial benefits for Ireland. BnM and OW believe that the early designation of DMAP sites is central to achieving this.

One of the major advantages to a plan led approach is the potential to reduce overall costs by ensuring that supporting infrastructure such as in network investments and ports capacity is holistically managed. Achieving this however require a comprehensive long-term development plan and strategy. The locations where ORE will be developed are central to this and why we believe defining future DMAPs should be a priority. Selecting the DMAPs is key to defining what future investment is needed and where it will be required.

The DMAP process needs to be accelerated across all coasts with a priority placed on the east coast DMAP as the next DMAP to be progressed. Even allowing for the Phase 1 projects along the east coast (successful and unsuccessful at ORESS 1), there is significant bottom fixed potential which can be realised in a cost competitive manner. From our engineering assessments, we believe that offshore wind can be delivered much cheaper on the east coast even when compared to potential bottom-fixed installations on the south coast due to different seabed and installation conditions and shallower waters. The east coast is home to the bulk of our energy demand and is proximate to Britain and further offshore development would align with Government strategy to develop further electricity interconnection to Britain. Notwithstanding the plans for energy demand clusters along the south and west coasts coordinated with ORE, we anticipate that a large

percentage of our domestic energy requirements for ORE will still be located along the east coast in the period to 2040-50.

Route to market

1(c). How best should the 2GW of non-grid limited offshore wind capacity be procured?

1(c) – Per the North Seas Energy Cooperation (NSEC) Offshore Auction Schedule published in November 2023 we note the intention to allocate 2 GW to non-grid limited use in 2025. We believe that focusing on non-grid limited rather than fully “islanded” uses for this capacity is the correct approach. In our view the goal for this procurement process should be increasing the deployment of ORE while maximising the use of existing grid infrastructure and facilitating industrial or economic opportunities that would not be available otherwise.

Our concept for how this non-grid limited offshore capacity would be used involves the location of a large demand customer close to the onshore landing point of the ORE development. With the customer’s demand requirements scaled to utilise the majority of the ORE generation capacity. The two major demand customers we foresee are large industrial users and, in the future, potentially hydrogen production. Large Energy User (LEU) industrial demand we believe could provide a route-to-market for these non-grid limited projects within the decade. In the medium term we do not believe hydrogen production can justify the development of an offshore wind farm due to the small market for the product in Ireland, lack of transportation infrastructure to export it and the likely high costs of production. In the future this may change but we would see that as occurring post 2035 so not relevant for the initial 2 GW of non-grid limited capacity.

We believe that the early moves for non-grid limited ORE will be more realisable along the east coast where the majority of our energy demand is located. In the longer term, we hope plans for energy clusters along the south and west coast coordinated with ORE development will come to fruition but believe the scale of demand may increase slowly initially. Therefore, to enable uptake of non-grid limited ORE in the short term, it is imperative to accelerate the east coast DMAP process.

A level of grid access would be required to make this concept deliverable; to enable import of electricity to supply the industrial demand when the wind farm is not generating electricity, and export of electricity when the wind farm’s generation is greater than the demand requirement on site. Innovative approaches including the use of battery storage could reduce the level of grid

impact and support the stability of the grid. A solution such as this maximises use of the existing grid and enables the introduction of a large demand customer which would not otherwise have been possible with the associated economic and social benefits.

The procurement process needed for this sort of a development will be more complex than for ORESS 1. This is due to the demand customer being an integral part of the project with the developer and demand customer forming a partnership to participate in the award process. At a high level we would see the procurement process centring on granting seabed development rights to a developer/project. This would have to be coupled with a connection route to the shore and combined with an onshore grid connection for the demand site with a level of generation export capacity. The size of offshore project would need to be smaller than the GW scale as even a large demand customer may not require a generation asset greater than 400 MW capacity.

1(d). What are your views on the design parameters for the successor scheme to ORESS, what else should/should not be considered?

1(d) - The first ORESS auction delivered a competitive outcome and is we believe widely seen as being a success. Central to achieving this was the rational approach the Department took in designing the auction and the measures included to reduce the developer's exposure to uncontrollable risks. This was achieved by providing financial protection from curtailment and oversupply via the UAEC, offering firm connection agreements to remove constraint risk and providing indexation to reduce inflation risk. This allowed developers to bid based on the project costs which they can control while removing uncertainty around the costs and revenues that would be earned.

In our view reducing these protections against uncontrollable risk would be retrograde step in the auction design and unlikely to deliver the desired aims. Introduction of a variable level of support, depending on external factors such as system curtailment or over-supply levels would make it exceedingly difficult for developers to model future revenues resulting in higher bid prices with an added risk premium. This would also introduce substantial risk to the overall project which could impact its deliverability and financing terms.

We believe in the future it may be beneficial to allow a single project to pursue a blend of both ORESS and CPPA support. ORE projects can be very large and multiple sources of support could allow for economies of scale that benefit both the corporate offtaker and electricity consumers.

MAC could be given on a stand-alone competitive process which will occur before the State support auction or at the same time.

We support the inclusion of Non-Price Criteria (NPC) in selecting the winner of an offshore wind auction for a seabed lease or an economic support from the government. The inclusion of NPC can help the country in the achievement of additional policy objectives. The weight of NPC should be between 15% and 50% according to Commission's and Parliament's proposal.

To have a positive effect on the Irish wind energy supply chain, the qualitative criteria should follow these principles:

1. They must be simple, transparent and verifiable.
2. They must be technologic-specific.
3. They must be aligned with other EU countries' NPCs.
4. They must not result in excessive administrative burden.

In our view, given the early development phase of Ireland's offshore wind pipeline, the most suitable categories for Non-Price Criteria are:

- **Ability to deliver:** having to achieve a minimum technical and financial criterion that ensures the viability of the projects based on the experience of the developers.
- **Environment and sustainability:** environmental foot-printing, circularity, or greenhouse gas emissions intensity of certain processes or components. Under this category focus could also be given to impacts on the local environment, communities and other maritime users.
- **Socio-economic criteria:** creating benefits for stakeholders and consumers.
- **Industrial policy:** supply chain engagement and domestic economic development. The assessment of this criteria would need to take account of the sophistication and level of development of the national supply chain.

Lastly we are of the view that separate approaches will be needed for developing fixed-bottom and floating projects in the successor scheme. We do not believe that large-scale floating projects will be cost competitive in Ireland in the medium term. However, as the industry develops and prices drop this will change. Until floating is price competitive to protect consumers from unnecessarily high energy prices the focus should be on developing sites suitable for bottom fixed first. To help the development of floating ORE in Ireland an initial pilot floating project (~50 MW) should be progressed similar to the approaches taken in France and Portugal. We believe that to develop this project a competitive process should be held to grant the winning developer a seabed MAC and support subsidy with the winner chosen largely on non-price criteria emphasising

ability to deliver and impact on industrial policy. Selecting the developer on non-price criteria would minimise speculative interest and ensure the project proceeds.

1(e). What frameworks and/or supports are required for alternate routes to market such as CPPAs, Power-to-X projects, interconnector-hybrid projects and export projects?

1(e) - Each of these suggested route-to-markets has different considerations and is dependent on a range of market and policy factors. It is our view that CPPAs offer the most viable route to market in the near term for ORE projects and has lots of potential for the deployment of renewables but also to address the growing needs for clean renewable energy by large industrial and multinational companies. How CPPA projects will secure grid access is an open question and one that should be explored as a priority. It would be logical to link the grid access for CPPAs with the allocation of sea-bed rights and any competitive process related to that. The allocation of available grid capacity in the period to 2040 between ORESS type auctions and CPPA route to market should be mapped out clearly in the pipeline of auctions. As mentioned above, we believe that a blend of ORESS and CPPA is also feasible for individual projects i.e. ORESS support is secured for a percentage of the capacity and the developer separately secures a CPPA for the remainder of the project capacity.

Role of the State and the role of industry

1(f). What additional capacities and responsibilities should be held by industry in the context of the plan-led approach?

1(f) - We understand the government may be considering taking offshore wind projects through the entire development phase including the achievement of planning consent. This is not a proposition that we would support as we don't feel government is best placed to achieve consent for the large pipeline of offshore wind farm projects which are required to achieve our climate targets in a timely manner.

It is our view that once a DMAP has been environmentally assessed and adopted by the Government and an ORE Designated Area identified within that process, it should be the responsibility of the industry, who have the expertise, to identify and design the most suitable sub areas/locations for turbines/infrastructure etc for the offshore wind farm and progressing the development of the project through the planning consent stage and onwards to construction and operation. We believe Government should initiate geo-physical and geo-technical surveys,

and aerial bird and mammal surveys once ORE Designated Areas are identified to ensure a full data pack can be delivered to a developer taking over a project following a seabed lease or auction award. This promotes the development of offshore wind farms in the most suited areas at lowest cost. This allows for development via the plan-led regime in the most efficient manner.

1(g). How can Government facilitate a more comprehensive and streamlined engagement process with developers to ensure national ORE targets are delivered?

1(g) - Ireland has succeeded in attracting the interest of many of the largest ORE developers in the world. These companies, including OW, have huge experience developing ORE projects under different regulatory and policy regimes and in markets at different stages of development. Early engagement with industry in the policy formation process is important if government wishes to fully exploit the experience and insights industry has to give. Regular and ongoing government engagement with ORE industry is viewed of key importance in ensuring national ORE targets are delivered. A recommendation would be to allow industry and supply chain representation at the Offshore Wind Delivery Task Force (OWDTF). This would ensure greater transparency from both government and industry and in turn, would help to accelerate programmes and forums within the OWDTF.

Grid infrastructure

2(a). What grid infrastructure should be of particular focus in facilitating the build-out of capacity to support ORE generation targets?

2(a) - We welcome the statement in the draft Future Framework that “grid capacity should not be a limiting factor leading up to 2040” as ORE targets have been factored into the Ten-Year Network Development Plan (TYNDP) process and will provide a roadmap for strategic development of the grid. It is critically important that this ambition is realised, and a grid development plan (covering offshore and onshore grid) is designed and implemented which facilitates the connection and efficient utilisation of our ORE targets.

We support the stated preference in the Framework to ensure grid capacity maximises the amount of ORE landed in Ireland resulting in significant in-country benefits. The electricity grid for 2030 has been designed to accommodate the Offshore Phase 1 projects per EirGrid’s Shaping our Electricity Future. As part of the Future Framework, it will be necessary to identify grid

capacity for ORE along the east coast which is proximate to the majority of our energy demand, and which is forecast to grow significantly in the period to 2040. The associated grid reinforcements (both onshore and offshore) need to be identified and developed to align with delivery of ORE to 2040.

The alignment of grid connection points for offshore wind with new HVDC interconnectors to other jurisdictions (identified in accordance with the Interconnector Strategy) should minimise the level of local grid reinforcement required and ensure a suitable export point for ORE when there is excess generation available in Ireland and provide energy security through import when wind generation is not available. In terms of export routes to market, electricity interconnection is by far the most developed and realisable at scale in the term to 2040 and this should be the focus of the largest portion of our export plans in the Future Framework.

Defence and security

2(b). In relation to National Security/Department of Defence interaction with ORE development, are there any issues you would like to highlight?

2(b) - In our view, the Department of Defence (DoD) should step up immediately from observer status to full membership of the Offshore Wind Delivery Task Force and lead a workstream on security which inter alia involves the ORE industry. The DoD need to facilitate engagement with the ORE industry so that constraints for military aviation or activities relating to ORE development can be identified in the first instance. Where constraints or potential impacts are identified, a clear process should exist to resolve and mitigate them without compromising our ability to achieve Government policy targets for ORE. The DoD should allow for and facilitate mitigation measures, as per best international practice.

In the UK for example, both onshore and offshore ORE installations are dealt with equally by Civil Aviation/Ministry of Defence (MoD). For example, the MoD in UK have a specific Wind Farm unit that manage engagements with wind farms and their consents. Civilian/non-military departments deal with ORE installations as part of a simpler process in comparison to security and defence forces. The MoD in the UK has implemented a standard process in dealing with ORE developments and installations where impacts on military Air Traffic Control Radar are deemed to be significant (noting that procedures for Air Defence Radar impacts may differ), a 3-stage process is worked through to identify, test and implement a technical solution.

1. Desktop Scoping Studies. This includes modelling of the WTG impacts on radar, description of the nature, extent and significance of the impact, a market research study to examine what potential technical solutions are available and ranking of potential options.
2. Field Trials are conducted on one or more of the preferred technical mitigation options presented at Stage 1, and a single preferred option identified.
3. Implementation in testing final technical mitigation selection.

Using the 3 stages above, an ORE developer works together with MoD to identify, test and implement a permanent technical solution. The ORE developer's agreement of a radar mitigation scheme agreement and ongoing participation in the delivery of the works under that agreement are typically required by means of consenting conditions. In the UK, consenting conditions state that a developer needs to agree on the technical mitigation solutions with the national security/defence authorities prior to either construction or operation of WTGs. This is typically imposed by way of condition as part of the final consenting decision by way of a grant. In circumstances where it is recognised that the process of identifying, testing, and implementing a permanent technical solution may take several years, and it is recognised that construction of the ORE installation needs to proceed before that process is complete, MoD may agree to the implementation of a temporary mitigation solution to be in place until the permanent solution can be delivered. The wording of consent conditions is also important, to allow construction works that do not have any potential to affect radar (i.e. all works other than WTG installation) to proceed without the need to have radar mitigation in place. In the UK, this is typically delivered by means of a staged consent condition, for example requiring that no offshore construction may commence until a radar mitigation scheme has been agreed, and that WTG installation above foundation level may not commence until the radar mitigation has been implemented.

Cybersecurity is also a key threat to the protection of ORE installations globally. The need for cyber professionals is becoming an important tenet across the maritime sector, particularly as modern shipping becomes more reliant on IT systems. The ability to attack such systems has the capacity to jeopardise maritime operations, disrupt supply chain networks and severely impact national/international trade and commerce. A recommendation would be to ensure MARA's remit includes cybersecurity with a supporting link to the DoD for matters related to the offshore sector. It will also be necessary for MARA and DoD to work with EU countries in learning from others experience on cybersecurity standards and strategies to ensure the maximum protection of ORE installations. Having knowledge of cybersecurity standards, strategies, legal and policy instruments will be critical as these references can change quickly with the ever-changing nature of IT systems.

Jobs and Skills

4(a). What structures, measures, and interventions can the State and State agencies implement to assist in the development of a long-term, sustainable skills and workforce pipeline? Provide any recommendations on what the State can do to promote careers in ORE across a range of educational backgrounds and movement from other relevant sectors.

4(b). Are you aware of initiatives in other jurisdictions or at a European level that would be relevant to Ireland's ambition of building a sustainable skills and workforce pipeline for offshore wind?

4(a) & 4(b) - Government funding can help de-risk skills investment on the part of industry and encourage companies to invest in the local workforce. Taking an industry-led approach would help ensure that people are being trained in the right skills at the right time and help ensure better employment outcomes at the end.

Many in the industry do not see much value in generalised training and prefer to bring through staff using their own inhouse methods. Furthermore, while training for skills in advance of demand may be of some benefit, there is likely to be little take-up for training if job opportunities do not yet exist. There is also an additional risk of people with the required skills relocating to other markets where demand is higher.

In order for Ireland to realise the full economic opportunity presented by offshore wind, a recommendation would be to implement the necessary interventions over the short, medium and long term which can help as presented in the "Building our Potential Ireland's Offshore Wind Skills and Talent Needs", a report recently prepared by BVG Associates, highlights key areas which is summarised as follows.

- Sort Term
 - Establish a skills development fund.
 - Attract workers from abroad to help plug short term skills shortage.
- Medium Term
 - Build Industry and Market Confidence
 - Ensure offshore specialisms are covered in public education and private training providers.
 - Access parallels with other expanding industries

- Long Term
 - Advertise offshore wind as an attractive industry.
 - Monitor local context levels over time to help enable an adaptive skill response.
 - Ensure health and safety legislation is relevant to offshore.
 - Build an HV and HVDC knowledge base.