Offshore Wind Limited
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Offshore Wind Phase Two Consultation
International and Offshore Energy Division
Dept. of the Environment, Climate and Communications
29-31 Adelaide Road
Dublin 2
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Offshore Wind Limited's Response to The Government of Ireland Offshore Wind Phase Two Consultation

In response to the Phase Two Consultation Offshore Wind Limited (OWL), a joint venture partnership between Cobra Instalaciones y Servicios, S.A (Cobra) and Flotation Energy plc (Flotation), wish to thank you for the opportunity to provide our input into the process. We welcome the opportunity to comment on the process and assist in shaping the Department of the Environment, Climate and Communications' Offshore Wind Phase Two Consultation. We are supportive of the industry being consulted on the development of Phase 2 projects and are keen to share our thoughts as successful UK bidders in The Crown Estate Leasing Round 4 and winners of a floating demonstration project in the Celtic Sea.

The general thoughts of OWL are set out within this letter, and our responses to specific questions posed can be found in the Annex.

Our projects

Together Cobra and Flotation are the global pioneers of floating wind, having designed, built and operated the largest floating windfarm in the world, Kincardine Offshore Windfarm. Not only did this Scottish project see the most powerful wind turbines ever installed on a floating platform, it also brought the industry one step closer to industrial-scale deployment. We are also currently in the process of developing the White Cross Offshore Windfarm in the Celtic Sea which will see deployment of up to 100 MW of floating wind by 2026/27. In Ireland, we are in the process of applying for a Foreshore Licence for our 1.5 GW Blackwater floating offshore windfarm located off the south coast of County Wexford.

Our experience also includes fixed wind. In 2021, OWL were successful bidders for the 60-year lease which was awarded in the UK by The Crown Estate as part of the Offshore Wind Leasing Round 4. We are progressing our 1.2 GW Greystones fixed bottom offshore windfarm located off the east coast of Co. Wicklow, currently at the Foreshore Licence Application stage.

Flotation are also participants in the Innovation and Targeted Oil and Gas (INTOG) leasing round in Scotland. INTOG allows developers to apply for seabed acreage to build offshore wind farms specifically to provide low carbon electricity to power oil and gas installations in the UK North Sea. A first of its kind, Green Volt is a grid-connected offshore wind farm with the specific aim of decarbonising one of the largest oil and gas platforms in the North Sea. As well as providing power to the UK grid, it is eliminating around 500,000 tonnes of CO_2 emissions annually. By 2026, Green Volt is expected to be the largest offshore floating wind farm worldwide. Flotation is working closely with major oil and gas operators to deliver Green Volt within this ambitious timeframe and deliver on Scotland's net zero targets. Flotation is also developing offshore projects in Australia, Taiwan and Japan.

Cobra is part of the Vinci Group. It has a wealth of experience ranging from engineering, supply, construction and start-up of projects related to the energy sector (traditional energy and renewable energies, assets related to the oil and gas sector) and engineering applied to industry. It is involved in the promotion, development and participation in a range of concession assets such as wind farms, solar thermal plants, desalination plants, drinking or wastewater treatment plants and hydroelectric power stations.

This diverse portfolio of projects means that OWL are not tied to a particular technology or contractor, so we can develop the most suitable solutions for each of our sites, always aiming to deliver the best and most profitable projects; whilst working with local supply chains, local communities and environmental bodies to ensure that our projects have a positive impact.

Ireland's Targets

Our track record shows our long-term support and commitment towards the transition to net zero. Both our Greystones and Blackwater projects in Ireland have been developed to deliver first power in 2028 and full commercial operation before 2030. We are well placed to bid into Phase 2, to help the Government of Ireland meet the Climate Action Plan target of 5GW by 2030. That said, we also encourage more ambitious targets to accelerate the optimisation of Ireland's marine resources; and to reflect and benefit from the adoption of hydrogen and new offtake arrangements. Ireland has a great opportunity to lead on political, economic and engineering measures to deliver cost certainty, security and continuity of supply to Irish electricity consumers.

With many of our senior engineers formerly working for oil and gas companies we understand the potential synergies that come from co-locating traditional power sources with renewables. Flotation, through Green Volt, is leading the way to decarbonise oil and gas while at the same time increasing offshore wind capacity and accelerating Scotland's net zero targets. We believe this kind of innovative thinking is directly transferable to Ireland's thermal generators and would welcome the opportunity to participate in this debate.

We also want to state our strong views on the necessity for, and attraction of, integrating floating wind opportunities into Phase 2. Floating wind is innovating rapidly and the reducing levelised cost of energy will compliment hydrogen, corporate offtakes and versatile route(s) to market.

We are supportive of the idea that special consideration should be given to selected innovative technologies which support Ireland's longer term renewable energy ambition. For instance, through a leasing round which encourages innovation in:

floating wind which would focus on enabling the deeper waters around Ireland to be utilised
hydrogen storage
interconnector hybrids
co-location with other sectors that can utilise the generation output
identifying offshore zones which could connect into some of the regions which will be impacted as peat and coal fired power generation is phased out.

This approach would enable Ireland to attract new market opportunities to meet the objectives of the Climate Action Plan.

Preferred Process Option

Our preferred option is B, however this should incorporate with elements of the early provisional grid connection approach set out in option C.

Option B is a familiar model to most developers. The requirement to demonstrate that a developer has sufficient technical and financial resources, project delivery and management experience (be it from a financial track record, core team competencies, public consultation or past developments) is a good thing and helps to identify the projects that should advance to the next stage. However, our experience of the UK Offshore Transmission Network Review means that we fully understand how important it is for Developers to have a viable Grid connection point allowing consents to be secured for transmission assets in parallel as the windfarm. The expectation should be on the developer to prove that not only have they met their milestones but have a route to market. Only then would it be reasonable to assume that a developer who has not demonstrated this, should not be eligible for a full Grid Connection Offer.

Ireland is one of many emerging offshore wind markets - we would flag those other markets do not require deployment securities and it makes Option A undesirable.

Whilst Option D offers considerable flexibility for developers; and gives EirGrid clear indications of where multiple developers wish to connect into the grid - complexity arises from how and which projects are successful. This option would increase the risk of legal challenges if the criteria to award or disqualify projects are not clear from the outset.

Competitive MAC Process

Having had experience with different competitive processes, we can identify the benefits and drawbacks of each model. We are supportive of the requirement that a developer needs to provide evidence that they have enough experience in the market (be it from a financial track record, public consultations, core team competencies or past developments). This also provides confidence to assessors. However, we strongly recommend that developers have sight of how the criteria will be weighted before the submissions are made.

Ireland is a new offshore wind market with the ability to absorb lessons learned from other markets. Managing delay and allocating risk fairly and realistically (with a clear familiarity with equity and debt requirements) should be integrated into regulation generally. We flag the approach undertaken in the Renewables Obligation scheme in the UK which provided for a series of grace periods where the delay arose for reasons beyond the reasonable influence of the developer e.g., grid connection delay, aviation/radar issues, route to finance. If all MACs expired prior to the Enduring Regime, this would be an abrupt change for developers over a short period of time.

We welcome the early creation of MARA and urge its adequate staffing and resourcing. However, we also see benefit in DECC being empowered to monitor and engage with projects on and ongoing basis to build market confidence, know-how and certainty. This would enable objective assessment of project development and viability against transparent sensible milestones.

Innovation

We are early adopters and demonstrators of:

floating wind: advancing the offshore wind sector's confidence in site development in deeper water through proven projects (Kincardine, White Cross and Blackwater)
co-location with oil and gas: to reduce development of virgin seabed (Morecambe)
energy transition: assisting the energy transition, to speed up decarbonisation of the sector while accepting that the energy system is not yet ready to work without fossil fuels (Green Volt and other North Sea developments)
hydrogen: working with several companies to integrate offshore wind into the broader value chain, to enable the emergence of hydrogen as a transformative fuel.

Floating wind is an enabling technology as floating windfarms can be located farther from shore and in better wind conditions than nearshore or onshore projects. Typically, capacity factors can be in the 55-60% range. However, floating remains at a relatively early stage and is currently more expensive than fixed bottom offshore projects. Due to this cost differential, countries are currently giving enhanced subsidies to these projects through energy price support via Contract for Difference (CfD) or similar mechanisms. The best stage to make these allowances is at the beginning of the drive for cost reduction – which means now.

We hope this response is helpful. If you would like to discuss any aspects of our response in more detail, then please don't hesitate to get in touch.

Yours faithfully,

On behalf of Offshore Wind Limited

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Annex 1: Response to Consultation Questions

Response to Question 1: Preferred Option

Preferred Option: Option B with elements of the early provisional grid connection approach offered by Option C.

Option A (least preferred): The risk of a deployment security is that it could penalise smaller companies who are innovating in new technologies such as floating wind. A deployment security should not be required as there will be enough financial commitment made by lease option payments and expenditure to develop the site. This option risks early financial investment from developers who must speculate without any certainty.

Option B: A familiar model to most developers, the requirement to demonstrate that a developer has enough experience in the market (be it from a financial track record, core team competencies, experience of conducting public consultations or past developments) helps to identify the legitimate projects that should advance to the next stage.

Options C & D: Whilst Options C and D enable developers to know if their respective projects are viable from a grid capacity and grid connection location point of view; the drawbacks would be entering ORESS without undertaking survey studies which will introduce conservatism in bids.

Response to Question 2: Deployment Securities

Other markets do not require deployment securities, it makes Option A undesirable, but if a deployment security is required, it should increase proportionally to the size of the site. The risk of a deployment security is that it could penalise smaller companies bringing innovation such as floating wind.

The security should only be drawn down if reasonable endeavours had not been made by the developer to meet their milestones. It would not be beneficial for the deployment security to be rolled over towards the RESS performance security.

Response to Question 3: Competitive MAC

Having had experience with different competitive processes globally, we can identify the benefits and drawbacks of each model. We are supportive of the requirement that a developer needs to evidence that they have enough experience in the market (be it from a financial track record, core team competencies, public consultation or past developments) and this provides confidence to assessors. However, we strongly recommend that Developers have sight of how the criteria will be weighted before the submissions are made.

The consultation queries whether a deployment bond should be maintained under Option B. We don't think it is required as there will be enough financial commitment made by lease option payments and expenditure to develop the site.

Furthermore, we suggest that the second ORESS auction is only held once a sufficient number of projects have consent. This would provide the additional certainty around the capacity which could be auctioned under ORESS 2. We also believe that an early ORESS doesn't

necessarily mean pre-2030 development. With this in mind, we consider there is benefit in seeking an extension in time to the State Aid Decision from the European Commission from the end of 2025 to the end of 2026.

Response to Question 4: Phase One projects retaining MACs

Phase One projects retaining MACs for Phase Two would be sub-optimal as it would ultimately discourage competition. Making all developers reapply is a better outcome as it would result in all developers bidding again and being re-evaluated. The best terms would win either due to assessment of answers or as the highest bidders.

Response to Question 5: Expiring MACs prior to Enduring Regime

All MACs expiring prior to the Enduring Regime results in an abrupt change for developers over a short period of time. Learning could be taken from the Renewables Obligation scheme in the UK which had a series of grace periods which are beyond the reasonable influence of the developer e.g., grid connection delay, aviation/radar issues, route to finance.

Response to Question 6: Provisional Grid Offers

Having engaged with the Transmission System Operator, EirGrid, in the past, we understand the pivotal role that EirGrid plays in shaping the future of electricity in Ireland. Projects that do not effectively compete in the auction but share a preliminary connection offer with projects that do should remain eligible for a CPPA route to market. This allows more flexibility for projects to gain a route to market and potentially develop in collaboration with others in the region.

Developers need to understand if their projects are viable from a Grid capacity perspective early on in the process. The expectation should be on the developer to prove that not only have they met their milestones but also have a route to market. Only then would it be reasonable to assume a developer who has demonstrated this, should be eligible for a full Grid Connection Offer.

Response to Question 7: Capacity Auctions at grid nodes

Auctioning capacity at particular grid nodes or regions in ORESS 2, appears to be the approach for Phase 3 or the Enduring Regime brought forward into Phase Two.

Response to Question 8: Grid orders of merit

We understand that there are limits to what the grid can offer in terms of capacity, for both generation and demand projects. We would hope that significant investment is provided to the grid to future proof against growing demand for capacity but also the ability for generation projects to meet that demand or alternatively, supply electricity to newer technology such as battery storage or hydrogen. Grid orders of merit would surely be defined by CRU and the TSO based on the need for electricity at specific nodes.

Meeting the various milestones on route to market are the biggest hurdles for any project. A centralised organisation should monitor and engage with projects on an ongoing basis to see if these projects are viable after every significant milestone.

Response to Question 9: Mutually exclusive offers

Option D offers considerable flexibility for developers and it gives the TSO clear indications of where multiple developers wish to connect into the grid, allowing them to plan upgrades and reinforcements. The complexity of this option arises from how and which projects are successful. This option would increase the risk of legal challenges if the criteria to award or disqualify are not clear.

Response to Question 10: Hybrid Connections

We support Hybrid connections as these can facilitate a sustainable power flow into the grid, without the variable supply typical of wind alone by utilising a mix of wind and thermal generation. Operating a thermal station for infill power when wind generation levels are below grid demand allows a reduction in greenhouse gas production when compared to running an existing thermal station alone. If the connection was to be at a new thermal station, then the offshore wind project may allow a smaller thermal station to be built than may otherwise be the case.

Mainland Europe and the UK's grids incorporate a range of thermal and renewable sources, and these operate in unison, although thermal stations are likely to be kept online at times of high renewable generation and low demand, with wind power being switched off.

Using a common connection has been proposed in various research papers, however, a search shows no cases of this being taken to a commercial level. There are two principal technical areas of consideration, the first being how would the switching between feeds work? Power levels from wind are variable and when wind power production is nearing the level of thermal cut in consideration would need to be given to the switching methods to ensure grid stability. The second technical issue is related to the adjustability of the thermal station. As turbines have a narrow efficiency band stepping power up or down can be incremental as opposed to linear. These two factors may favour hybrid connection into new thermal stations where these considerations are built into the design to integrate thermal and wind. Additionally, integrating at a new station would allow environmental permitting to be completed for the full development.

Competition legislation exists to avoid levels of uncompetitive advantage.

Response to Question 11: Innovation technologies

Flotation Energy and Cobra are early adopters and demonstrators of:

floating wind advancing the offshore wind sectors confidence to site development in deeper water through proven projects (Kincardine, White Cross and Blackwater)
co-location with oil and gas to help them decarbonise whilst accepting that the energy system is not ready to work without them and to reduce development of virgin seabed (Morecambe)
Energy transition assisting the energy transition demonstrates the forward thinking and innovation of our projects (Green Volt with others in development)
Hydrogen working with several companies to integrate offshore wind into the broader value chain, to enable the emergence of hydrogen as a transformative fuel.

Floating wind is an enabling technology as floating windfarms can be located further from shore and in better wind conditions than nearshore or onshore projects. Typically, capacity factors can be in the 55-60% range, or above, compared with c40% for nearshore and 35% onshore. This additional power output gives greater possibilities for a mix of direct power supply, storage technologies, and green fuels. The counter to these advantages is the increased cost for floating wind, although this will drop as the market develops. To support this cost differential, countries give enhanced subsidy to these projects through energy price support via Contract for Difference (CfD) or similar mechanisms. The best stage to make allowances is at the beginning of a process. Floating wind can deliver by 2030 subject to consenting and market capacity.

The 5GW of offshore wind before 2030 sets the focus on developing projects over the next 8 years to meeting this target. After 2030, continuing development of offshore wind can be used to power green fuel generation for both Irish consumption and export.

The existing East West Interconnector allows surplus power to be exported to the UK. Additionally, the potential Celtic Interconnector gives an opportunity for Irish offshore wind power to be exported directly to France. As Phase One Offshore Wind projects move into delivery, Floating Wind is the next logical step beyond fixed bottom offshore windfarms.

ENDS