

EirGrid Response to the DECC consultation on Offshore Wind Phase Two

9th March 2022



1. Overview

EirGrid plc (EirGrid) welcomes this consultation by Department of Environment, Climate and Communications (DECC) consultation paper entitled *Offshore Wind Phase Two (Consultation Paper)*. It represents one of several key Offshore policy milestones achieved in recent months.

EirGrid supports the need for robust policies to develop the electricity grid in a safe and secure way. This is necessary to meet projected demand levels, to meet Government Policy, and to ensure a long-term, sustainable and competitive energy future for Ireland.

It is vital to meet Ireland's targets for offshore wind whilst maintaining a safe and secure power system and aligning with government policy. EirGrid's recently published roadmap, [Shaping Our Electricity Future](#) ('Shaping'), has identified the optimal regions (after consideration of a range of criteria) to connect offshore wind generation to the onshore system by the end of this decade.

EirGrid is supportive of the DECC Offshore Wind Phase 2 proposals. The proposal provides a significant step on the pathway to the centralised deployment of offshore renewable energy in the Enduring Regime beyond 2030.

EirGrid is obliged to plan, operate, and develop where necessary, a safe, secure, reliable, economic and efficient transmission system in Ireland and as such is committed to securing the transition to a clean energy future that will be delivered in line with government policy. It is with that commitment in mind that we have set out this short paper, summarising EirGrid's views on the Consultation Paper.

Offshore wind will play a central role in meeting Ireland's energy needs in this decade and beyond. EirGrid is fully supportive of the phased transition as envisaged in the Government's Policy Statement on Grid Development for Offshore Wind. The focus of this consultation is on the successful delivery of the Phase 2 projects; however, it is also critical to support the transition to a fully plan-led approach for offshore grid delivery.

Specific areas of the consultation for which the DECC sought feedback are set out below. We look forward to supporting the DECC in the further development of Phase 2 offshore generation that will help meet Ireland's climate action ambitions.

2. Response to Consultation

1.1. Shaping Our Electricity Future

EirGrid agree with the approach taken in the Phase Consultation to link the Phase 2 projects to areas which have been identified in Shaping as having realisable transmission capacity by 2030, linking generation to where it is consumed. EirGrid also agree with the statement that in order to achieve our 2030 offshore wind ambition, this identified capacity must be utilised in totality. EirGrid agree with the statement that Shaping will continue to examine new technologies and potential non-grid solutions – this is particularly important as oversupply (more renewable generation than demand) increases for higher RES-E penetration.

1.2. Phase 2 Grid Offers

EirGrid agree with the conditionality proposals in respect of the Phase 2 full Grid Offers i.e. secured route to market and development permission for the reasons outlined.

EirGrid note the proposal to over allocate grid capacity based on expected auction attrition. EirGrid agree with the proposed ORESS-2 order of merit proposal and note that it should where possible be

assigned to projects seeking to connect in the same transmission network region to avoid over allocation being realised in these regions.

1.3. Phase 2 Grid Delivery

EirGrid retains the responsibility to determine the contestable and non-contestable transmission assets in a grid connection.

EirGrid note that there will be a limited number of suitable connection points onshore as identified in *Shaping Our Energy Future*. WhereIn particular, EirGrid would note that in the absence of an agreement between two or more Phase 2 projects seeking connection to the same onshore transmission node or in the same geographical region, EirGrid may identify that an integrated offshore grid solution is required to ensure that the required quantum of transmission assets is reduced. EirGrid note that, as identified in *Shaping Our Energy Future*, there will be a limited number of suitable transmission nodes onshore where there is sufficient transmission capacity to transport power to load centres.

If multiple projects are seeking to connect at a transmission node with the aforementioned limited capacity, EirGrid could elect to progress the outline design & consenting of transmission assets, these assets would then be delivered by the successful Phase 2 project subject to the appropriate MAC and ORESS supports being in place.

1.4. Enduring Regime

EirGrid note and agree with the Enduring regime (Phase 3) proposal in respect of Grid. EirGrid also agree with the Project Selection process direction and fully support the DMAP and OREDP-II identification process. We look forward to supporting the DECC in the further development of the Enduring Regime for offshore generation, the advantage of which include long-term onshore-offshore transmission coordination, potential for reduced infrastructure and future proofing, potential for meshed offshore grid, further interconnection with the EU Internal Energy Market and the UK, larger and further distance offshore windfarms as floating technologies develop, power to gas (hydrogen) projects and the ability to craft a coordinated public acceptance process covering multiple projects.

1.5. Options for Discussion

EirGrid do not have an express preference for either of the options presented, however, EirGrid note that the fundamentals aspect as outlined in the Consultation paper should prevail:

- The conditionality of Provisional Connections with the Shaping capacity allocation i.e. Phase 2 projects seeks connections in regions with no capacity will be not be granted Provisional Connections.
- The conditionality of full grid connection offers with both a route to market and development permission.
- In grid regions which are oversubscribed, DECC would collaborate with the CRU and EirGrid to examine grid optimisation procedures and some order of merit (be that through a competitive MAC process or otherwise).

Additional commentary is provided on the merits or challenges of each option below:

Option A / Option B (Grid aspects identical):

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EirGrid supports the proposed conditionality of the MAC with the Shaping capacity allocation.

EirGrid supports the proposed conditionality of the Provisional Connections and the MAC.

EirGrid supports the concept of collaboration between DECC and CRU to examine grid optimisation procedures as an early intervention step.

EirGrid supports the idea of a reserve list as proposed and would add that this list should where possible be assigned to projects seeking to connect in the same transmission network region to allow for optimal grid allocation.

EirGrid supports the conditionality between the full grid connection offers and projects securing a route to market, via ORESS 2 or otherwise, and development permission.

Option C:

EirGrid note the proposal that certain grid nodes or grid regions could be reserved for non-ORESS routes to the market. EirGrid would require some instruction from DECC in this regard on what basis these nodes or regions would be identified.

Option D:

EirGrid note the proposal that an applicant could make multiple auction offers at same or another node which could be mutually exclusive. EirGrid note the disadvantage identified for this Option relating to the volume of provisional connection offer which would be required. EirGrid would request that if Option D is selected then some limitation is placed on the number of iterations which each project can request.

1.6. Hybrid Grid Connections

EirGrid would suggest DECC consider remaining technology neutral to Hybrid site combinations and consider the development of Hybrid technology that allow for the optimisation of the network and facilitation of RES-E. Under the EirGrid Technology Enablement workstream (previously FlexTech), EirGrid has defined a Hybrid Site to be any project that has multiple power generating modules which utilise multiple primary energy sources or technology types in generating/storing electricity and are electrically connected behind a single defined Connection Point to a licensed System Operator.

Hybrid Technology present an opportunity for EirGrid and the private industry to maximise existing network assets, increase diversity factors, and provide greater system flexibility. Hybrid technology may help maximise the use of transmission and distribution infrastructure and work towards delivering our 2030 targets and beyond. In Europe and the United Kingdom, Hybrid technology has been recognised as playing a role in achieving 2030 RES-E targets and net carbon zero by 2050. The National Grid Electricity System Operator (NGESO) in the U.K. recently published a guidance note for co-Location of different technologies, which is available [here](#).

In Ireland, EirGrid has identified several priority areas that focus on breaking down the barriers for Hybrid technology across technical, operational, commercial, regulatory and market challenges. These priority areas are a key activity under the Operations pillar of the EirGrid Shaping Our Electricity Future Roadmap. Furthermore, they also form part of the 2021 Climate Action Plan and Joint System Operator Multi-year plan 2022-2026.

On the Hybrid arrangements set out in the consultation, EirGrid agrees that a comprehensive assessment will be necessary before these connections can be considered. This assessment will need to take account of any unintended consequences of facilitating such connections including:

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- EirGrid's ability to maintain a safe and secure power system
- Market fairness and competition, particularly at existing key transmission nodes e.g. Poolbeg, Finglas, Great Island, Moneypoint, Aghada
- Creating limits on the evolution of the meshed offshore grid which would impact on benefits for the Irish consumer

1.7. Innovation

The power system is undergoing a transformational change as we prepare it to achieve 80% RES-E by 2030 and net carbon zero by 2050. To enable this transition EirGrid published a new Innovation and Research strategy in late 2021. In this strategy we note how we need to accelerate the integration of appropriate new technologies to help us achieve this goal. One such area was around a proposed 'Innovation Trials Sandbox', a concept used in other jurisdictions. We are now in a world of transformative change and current frameworks may unduly prevent innovation. This proposal is to unleash the potential of customers to solve problems by exploring an Innovation Trials Sandbox; facilitating innovation trials or bring to market new technologies, products, services, or business models. This will allow us to learn more about these before their wider deployment. We noted how engagement was needed with the regulatory authorities on funding of same.

1.8. Other Relevant Considerations

The development of offshore network will require significant financing and clear delineation of legal responsibilities and duties across all stakeholders. There are two emerging issues that need to be factored into any future decisions on offshore network.

- The first is the emergence of the need to compensate certain renewable projects to their new support costs if units are dispatched down below their market position. The liability of compensation owed arising out of delays to shallow and deep reinforcements is especially relevant to offshore. Clarifying the liabilities and responsibilities on needs careful consideration as we move through Phase 1 to Phase 3.
- The second issue relates to the long term scale and size of individual projects. With the collection of multiple projects utilising common or shared networks there will be a need to coordinate the operation of these plants to maintain the resilience of the system. The dispatch rights of the TSO today will likely challenge some of the commercial considerations of each individual offshore project and effective design and operation of the offshore network. Consideration of large scale hydrogen plants which have mixed input to electricity system will challenge the needs of the power system and broader energy security.