31 May 2024

Ofgem
10 South Colonnade, Canary Wharf
London E14 4PU

By email: Cap.Floor@ofgem.gov.uk

Response to Ofgem's Consultation on Initial Project Assessment of the Third Cap and Floor Window for Electricity Interconnectors

Dear Sir/Madam

Etchea Energy Partners LLP (**Etchea**) welcomes the Ofgem consultation on Initial Project Assessment of the Third Cap and Floor Window for Electricity Interconnectors (the **Consultation**).

Etchea is an independent firm providing management and consulting services to clients operating in the energy sector, including interconnectors and multipurpose interconnector (**MPI**) projects. Etchea provides the management team to the MaresConnect project. Our comments are focussed on areas of the Consultation addressing the GB Irish border for further interconnection, including MaresConnect and broader comments on the Consultation.

Q1. Do you agree with our minded-to position on the seven projects considered in this consultation?

We do not agree to with Ofgem's position of rejecting the majority of Window 3 projects at an early stage of development, for the reasons set out below.

Issues with Arup's modelling

Errors and other issues with replicability of Arup's modelling which, when corrected, would lead to a positive MaresConnect GB SEW result under the MA approach (the results are positive under the FA approach, even before the errors are corrected). MaresConnect commissioned FTI to undertake in-depth modelling which sets out evidence of a positive GB SEW for MaresConnect when the two quantifiable issues are corrected.

Irish sensitivity

The SEM assumptions used in Arup's modelling do not reflect a reasonable scenario for Ireland and were out of date. Arup's SEW results for MaresConnect contradict numerous other studies and assessments of the Irish-GB border conducted by reputable consultants and organisations in GB,

Ireland, and the EU. For instance, Ofgem's SEW assessment by AFRY in 2020, which supported Ofgem's ICPR, concluded that the GB-Ireland border was the only one where additional interconnection would yield positive GB consumer welfare. Arup's findings, suggesting net negative MaresConnect SEW for GB, stand as outliers against these many recent evaluations.

Given the considerable issues identified with the SEM forecasts included in the FES 2022 and the errors described above with the calculation and allocation of Irish-GB SEW, we do not believe that Ofgem has undertaken a fair and reasonable assessment of MaresConnect to determine whether the project brings GB societal welfare.

Further, we do not believe that GEMA has been given the opportunity to fully consider the potential SEW impact of MaresConnect due to the most reasonable and realistic scenario (Ireland decarbonising at a rate that is consistent with its own government policy and the Energy MOU) not having been considered as at least one scenario or sensitivity under the Arup Market Modelling Report.

TYNDP 2022 data available at the time of Arup undertaking its assessment, in favour of utilising FES 2022 European data, is concerning in the post-Brexit era where NGESO is no longer a member of ENTSO-E and does not have access to European TSOs for scenarios development. We also note the introduction in the Energy Act 2023 of new duties for Ofgem on top of its duty to protect existing and future consumers, namely to assist the UK Government in meeting its net zero targets by 2050.

Utilising IPA Conditions

More generally, Ofgem could consider granting a positive IPA decision subject to specific IPA conditions to be reconsidered at the FPA stage. This would allow Ofgem to progress a greater number of projects at this stage, acknowledging the tendency for there to be natural (and in some cases unforeseeable) attrition of projects during the development period. For example, there are three projects which obtained positive IPA positions from Ofgem in previous windows which have not yet been able to obtain regulatory status in the connecting country. A positive IPA decision subject to conditions allows developers to progress projects (at their own risk) while addressing the issues that Ofgem has concerns about, and retaining Ofgem's ability to protect consumers by addressing those issues at the FPA stage. Ofgem utilized this mechanism in overturning the minded-to position for the Greenlink Interconnector project from negative to positive.

Q2. Is there any additional information that you think we should take into account when reaching our decision on the IPA of the projects?

Wider benefits of interconnection

Two key wider benefits have not been adequately considered in Ofgem's SEW assessment of MaresConnect; ancillary services and intraday revenues. These benefits should be considered in Ofgem's final IPA decision.

Ancillary Services

NGESO 'Markets Roadmap March 2023' emphasises *"reform of ESO's ancillary services and Energy MOUs is crucial if we are to ensure that we can operate a zero-carbon electricity system''*. It further states that *"as we transition to net zero, and a greater portion of renewable generation capacity, we will have to manage more frequent and faster frequency fluctuations".* Therefore, it seems counter intuitive, given the ambitions to rapidly increase the proportion of variable power onto the system, that Ofgem would not place much greater emphasis on the proven benefits that HVDC ancillary services provide.

In fact, ancillary services are not considered by Ofgem in final decision, which is a departure from methodology. The ESO Modelling Report Mar 2024, includes a "conservative'' estimates of benefits attributed to Window 3 Projects. This results in a quantitative benefit to the SEW.

Given the ambitions to bring such vast quantities of non-synchronous intermittent power onto the GB Network over the next few decades, the need for Ancillary Services is likely to increase and therefore the role of interconnectors will become an increasingly beneficial tool for TSO's to efficiently operate power systems with lower inertia and higher percentages of variable generation.

More than ever, TSO's are acknowledging the increasingly important role that ancillary services play in effectively managing evolving power systems, which are trying to integrate and accommodate huge volumes of intermittent power generation, such as onshore and offshore wind. Interconnectors can provide both frequency response and reserve to support the evolving system and have a key advantage of being able to rapidly change their power output (Import/Export) across their full operating range, subject to the operating conditions at both ends.

Intraday Trading

MaresConnect is forecast to create significant value through intraday trading reflecting the volatility of the short duration of Irish wind patterns. While Arup's modelling will capture part of this value, there is significant extrinsic value which is not, thereby potentially understating interconnector SEW.

Irish policy

The Irish government has confirmed its strong support for further interconnection between GB and Ireland, including committing to a further interconnector between GB and Ireland by 2030. DECC's commitment was made on the basis of economic modelling undertaken by DNV which showed a further interconnector would be beneficial to both Ireland and GB. DECC has confirmed that MaresConnect is the project that is being progressed in Ireland under that commitment. As a result of DECC's policy, the CRU has confirmed it is proceeding to undertake its own initial project assessment, commencing in Q2 2024, and has directed EirGrid to progress MaresConnect's grid connection in Ireland.

Ireland has set out its pathway towards achieving its net zero commitments and has set high RES targets to meet these commitments and to harness Ireland's huge wind resource. We have summarised some of the key decarbonisation ambitions and policies:

Climate Action Plan: Ireland has legislated for key net zero and emissions targets, and in 2021 established a Climate Action Plan, which is updated annually, to set out the actions required to meet these legally binding targets.

Tomorrow's Energy Scenarios ("TES") 2023 – EirGrid & SONI, November 2023: EirGrid and SONI have developed TES 2023 to provide likely scenarios for future development of SEM's grid from the perspective of the Transmission System Owners ("TSOs"). The Self-Sustaining scenario from this report has been used in the AFRY analysis commissioned by DECC for the Offshore Renewable Energy ("ORE") Future Framework below.

ORE Future Framework – DECC, January 2024: This policy is an over-arching framework for the development of future offshore wind development in Ireland. Extensive analysis by AFRY supporting the framework considers the impact of future offshore wind development on generation capacity mix and the requirements for further interconnection across the SEM. Even under the most conservative Domestic Net Zero scenario, DECC expects 76GW of generation capacity by 2050, driven by 20GW of offshore wind. These capacities are greater than FES 2022's CT scenario by factors of 3 and 4 times respectively.

Designated Maritime Area Plans: As a key enabler of offshore wind development, Ireland is establishing Designated Maritime Areas Plans ("DMAPs") within which fixed offshore wind farms may be located in the future. This builds on the National Marine Planning Framework, which identifies a central role for offshore RES in driving Ireland's green energy transition and energy security. The Maritime Area Planning Act 2021 legislated for the establishment of DMAPs. DMAPS are part of Ireland's approach to the systemic, plan-led development of Ireland's huge offshore wind potential.

National Policy Statement on Interconnection - DECC, July 2023: This policy sets out Irish government ambitions for increased future interconnection development and key considerations required in order to deliver them successfully. The accompanying report prepared by DNV indicates strong growth in offshore wind and total capacity requiring significant growth in interconnector capacity to export excess electricity. The capacities for SEM in this report align with the Offshore Opportunity scenario from the TES 2023 report above and forecast 83 GW of total capacity by 2050 driven by 40 GW of offshore wind.

Ofgem stance on future Irish interconnection

Ofgem's negative stance on the SEW benefits for both projects connecting to SEM implies that further interconnection with Ireland may not yield benefits for GB until at least 2050. This position seems at odds with the UK's distinct relationship with Ireland, particularly in the context of post-Brexit relations and the TCA, the Energy MOU, the NESC MOU and the Joint Statement. Ofgem's position overlooks the integrated nature of the electricity network across the entire island of Ireland and its implications for the UK's broader decarbonisation strategy.

Moreover, Arup's GB SEW results for MaresConnect are an outlier in comparison to the assumptions used in all other publicly available studies and their findings in respect to the expected benefits to GB and Ireland.

There are inherent limitations on modelling the European market over the next 30 years, but all studies (other than Arup's Window 3 modelling) agree that MaresConnect is a highly valuable grid asset, with varying views on the extent to which the benefits are likely to fall to GB and Ireland,

respectively, depending on the scenarios and other modelling inputs, all of which suffer from the frailties of forecasting. This illustrates why a range of scenarios should be considered, including for the relevant connecting country. As Ofgem concluded in the ICPR, "*Socio-economic electricity market modelling remains a valuable tool for assessing the needs case for future interconnectors. However, we acknowledge that any modelling exercise has limitations and necessarily makes simplifications, that should be taken into full consideration when making regulatory decisions*."

In this context, we are of the view that the strong benefits to Ireland should be considered by Ofgem in the context of a strategic decision to support the Irish projects in Window 3, particularly given the special relationship between the UK and Ireland and the commitments under the Energy MOU to "*promote the development of electricity interconnection between the Participants*".

Signal to private capital

The Cap & Floor mechanism has successfully attracted private capital into the capital-intensive interconnector industry. Without this incentive, many projects might not have reached the Final Investment Decision ("FID") stage or been developed at all. Looking ahead, the capital needed to meet Great Britain's offshore transmission requirements is estimated to be in the hundreds of billions of pounds. NGESO's "Beyond 2030" report alone identifies a need for £58 billion in grid reinforcement investments, excluding additional costs for further interconnectors, OHAs and radial connections. The build-out of this offshore transmission infrastructure will depend heavily on significant private capital to achieve GB's objectives.

Currently, the Window 3 and OHA processes include nine projects under development, all funded by private capital. These projects have met the necessary eligibility criteria, and many have incurred development costs exceeding £10 million each, taking all W3 projects and OHAs this represents a total of some £100 million of risked capital already spent. However, by rejecting 80% of these projects, Ofgem may be unintentionally signalling a high regulatory risk to investors. This perception could discourage the development of future projects and increase the cost of capital that investors require, adversely affecting not only consumers and RES developers but also undermining GB's decarbonisation goals.

Further, by selecting just two projects at this early stage of project development, Ofgem is creating a concentration risk. If either of the selected projects fails to achieve operational status for any reason, Great Britain will face limited additional interconnector capacity and a minimum of a 10-year period before any further capacity can be developed. And, even then, there might be a reluctance for developers to invest the development expenditure necessary to meet IPA eligibility criteria given the material cost and the high incidence of failure in Window 3.

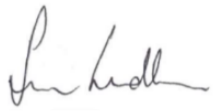
Concluding remarks

The risk of not interconnecting Great Britain to its neighbours is that it could lead to a self-fulfilling prophecy: neither Great Britain nor its neighbours will decarbonise effectively, curtailment costs will rise, and managing large volumes of non-synchronous power will become increasingly challenging for TSOs. Developing interconnectors is a long and risky process for private capital, with all projects under consideration following Ofgem's multi-stage approval process designed to protect consumers. Ofgem's current position of advancing just two, early stage, W3 projects (one of which is a pilot Offshore Hybrid Asset ("OHA") in respect of which the regulatory regime remains in development in

both GB and the European Union ("EU") and connecting country) creates a huge concentration risk on a single project, that should it fail, would leave GB without any further interconnection for at least 10 years. This is a critical moment for Ofgem to take affirmative action to stimulate the development of additional interconnector capacity, not only for 2030 but with a longer-term view towards 2050.

We are available to discuss further any of the points made above.

Yours sincerely,



Simon Ludlam
CEO

Etchea Energy Partners
E: simon.ludlam@etchea-energy.com