

Via Email

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National Grid Electricity System Operator (ESO) response to Ofgem's Revised Minded-to Decision and further consultation on delivery models in Pathway to 2030 (PT2030)

Dear colleagues,

We welcome the opportunity to respond to Ofgem's recent Revised Minded-to Decision and further consultation on delivery models in PT2030. We have not commented upon the Impact Assessment on this occasion and our response is not confidential so can be shared with others, including via your website.

The ESO is the electricity system operator for Great Britain. We move electricity around the country second by second to ensure that the right amount of electricity is where it's needed, when it's needed – always keeping supply and demand in perfect balance. As Great Britain transitions towards a low-carbon future, our mission is to drive the transformation to a fully decarbonised electricity system by 2035 which is reliable, affordable and fair for all. The ESO holds a unique position at the heart of the nation's energy system. We use our unique perspective and independent position to facilitate market-based solutions which deliver value for consumers.

A summary of our key points in response to your specific consultation questions can be found as follows.

- We support the introduction of a late competition model for non-radial offshore transmission assets. However, we note that there are still uncertainties in relation to roles and responsibilities for this option, as there are with the very late competition model option. For example, how the lead developer is confirmed for each of the assets and their relationship with the later developer(s). We also support the proposed extension of the delivery model policy to the Celtic Sea region from a pragmatic perspective.
- We support the extension of Anticipatory Investment (AI) policy to the projects within the scope of the PT2030 workstream. We need to ensure a common understanding of which projects this relates to, and which projects are then impacted in practice by the extension of AI policy to the PT2030 workstream.

- Where there is sufficient information to form a view, we generally support the charging mechanics for non-radial offshore transmission. However, it is a complex area requiring further consideration and clarification prior to code modifications being fully developed to set out the amended network charging arrangements. This will be required for non-radial developers specifically, and more broadly for other stakeholders paying network charges where there will likely be interacting impacts.

Our detailed responses to the consultation questions are included in the appendix below.

Whilst not related to any consultation questions we feel that it is worth mentioning that throughout there are references to capacities in relation to both the Holistic Network Design (HND) and the HND Follow-up Exercise (HNDFUE) which are not quite in alignment with the figures we recognise. Prior to the decision being published it would be worth ensuring there is a consistent understanding and use of such figures. For example, Paragraphs 2.5 and 2.6 of the Revised Minded-to Decision refer to 1GW of Celtic Sea capacity in the HND connecting by 2030 and then 4GW of Celtic Sea capacity being considered in the HNDFUE. In practice there is 4.2GW of capacity being considered in the Celtic Sea by the HNDFUE and this will overwrite the 1GW recommendations for indicative projects in the region contained within the HND i.e. no in-scope offshore wind farms in the region have yet been given a recommendation from the HND or the HNDFUE.

We welcome the opportunity to further discuss the points raised within this response. Should you require further information or clarity on any of the points outlined in this response then please contact Alice Etheridge in the first instance at alice.etheridge@nationalgrideso.com.

Yours sincerely,

Julian Leslie

Head of Networks and Chief Engineer

Appendix: ESO response to consultation questions

Q1: Do you support the introduction of a late competition OFTO build model for non-radial offshore transmission assets?

Yes. We believe it is prudent to provide developers with the choice of either a very late or late competition model for non-radial offshore transmission assets. This mirrors the optionality available for radial offshore transmission. If utilised by non-radial developers, a late model likely partially mitigates some of the challenges associated with a very late model e.g. in respect of potential complexities associated with the Generator Commissioning Clause. We agree that a late model likely improves some of the concerns raised by developers in respect of co-ordination within a competitive environment.

Whilst both models may ultimately need to be developed in sufficient detail to be implemented it is important for us to gain clarity on which route developers of the three non-radial offshore transmission components within the HND are to utilise. This will allow connection contracts to be correctly updated for developers responsible for and/or dependent upon non-radial offshore transmission. A decision and clarity in respect of delivery would be beneficial as soon as possible to facilitate the timely progression of non-radial offshore transmission.

It is worth noting in relation to the late competition model for non-radial offshore transmission assets, there are still some uncertainties in relation to roles and responsibilities. Whilst this option removes uncertainty for the construction and commissioning stages, it still exists for Detailed Network Design (DND) and consenting stages. From an ESO perspective, we will need to understand the delivery arrangements for these activities in respect of updating connection contracts e.g. which party is responsible for gaining consent and in what timescales, etc. Prior to this point it is challenging to fully update connection contracts related to non-radial offshore transmission so, as above, a decision and clarity as soon as possible could be beneficial to delivery timescales.

In an ideal world we would have liked to have seen some form of early competition model being progressed for the Celtic Sea region if there were a positive cost-benefit analysis in the specific circumstances. However, as we have previously indicated, this is not practicable given the current circumstances and so we are supportive of the delivery model policy being extended to the Celtic Sea region.

Q2: Do you support the extension of AI policy to the projects within the scope of the PT2030 workstream?

Yes. We believe it is prudent to extend AI policy to both non-radial offshore transmission and projects dependent upon non-radial offshore transmission within the scope of the PT2030 workstream. However, we need to ensure a common understanding of which projects this relates to, and which projects are therefore impacted in practice by the extension of AI policy. There are additional complexities compared to the Early Opportunities workstream as a result and these also need to be considered and we detail these within our response to Q3 below.

Q3: Do you agree with the proposed mechanics of charging (see Appendix 1) to take account of coordinated infrastructure?

To an extent, as there are some elements of the proposed mechanics which require clarification and/or further information prior to us being able to confirm we are fully in agreement with those proposed mechanics. We set out our current thoughts on discrete elements of the proposed mechanics and associated information as follows.

AI Cost Gap, Remaining AI and Local Circuits

- Within the HND, subject to DND and clarity on ownership boundaries, it is possible that one or more of the non-radial offshore transmission circuits are beyond a Main Integrated Transmission System (MITS) Node. This would typically be the boundary between local and wider network charging arrangements. Therefore, if you seek to apply AI policy (including the AI Cost Gap) to non-radial developers, it may be necessary to explore local charging arrangements and whether, in some cases, they could be applied to non-radial offshore transmission assets irrespective of whether they are 'beyond' a MITS Node.

Non-Radial Offshore Transmission Delivery Model Options and AI

- Paragraph 5.21 could be clearer as we do not understand why the AI option is an 'alternative route'. Whether non-radial developers proceed under a very late model or a late model in relation to non-radial offshore transmission assets, would those developers need to utilise the gateway assessment process? Therefore, our understanding is that there would be AI in respect of non-radial offshore transmission irrespective of whether non-radial developers utilise the late competition or very late competition route.

Non-Radial Offshore Transmission Wider Network Benefits and AI

- Paragraph 5.24 states (our emphasis) that 'the later user is a TO rather than a second wind farm'. We think it should instead be 'the later user is a collection of all network users (generation and demand) as well as at least one other wind farm' as if we have understood correctly, you are effectively referring to the three non-radial offshore transmission circuits. These are all needed by other wind farms as well as being used for boundary transfers based on the asset classification outcome i.e. that those three assets are being mostly used for offshore wind farms and only partly being used for wider network benefits. This same point applies to Paragraph 5.37.
- Paragraph 5.32 refers to a 'later user' and if we have understood correctly this reference should solely relate to generators and not to TOs i.e. user commitment is not proposed to be extended to TOs for boundary transfer capability on non-radial offshore transmission assets. If our understanding is correct, it could be made clearer that a 'wider boundary share' of any non-radial offshore transmission assets is only relevant to user commitment arrangements to the extent that we need to ensure any later user is not liable for it for the purpose of those arrangements.

AI Cost Gap and Remaining AI

- Notwithstanding the above clarity being required regarding the treatment of the 'wider boundary share', there is a material point which may require policy clarification. Paragraph 5.35 potentially already sets out the position, but as it is a fundamental charging mechanic it would be worth further emphasis if so. If we have understood Paragraph 5.35 and the broader elements of Chapter 5 and Appendix 1 correctly, we would appreciate confirmation whether (in respect of AI) the minded-to policy position is as follows:
 - The initial user is primarily liable for the non-AI element set by the cost assessment process, and this will be recovered from the initial user via normal local charging arrangements i.e. there will be some consumer sharing based on the existing local charging calculations, such as in respect of the offshore and onshore OFTO substation costs. Therefore, as well as providing the non-AI element value, the cost assessment process may also need to provide an adjusted asset capability for both the local substation assets and the local circuit to ensure there is a proportionate local charge for the initial user based on their use of the shared assets. This assumes that there is not an expectation that there would also be changes to how the non-AI element would be calculated as potentially alluded to in Paragraph 1.3 of Appendix 1.
 - The later user(s) will be liable for the entirety of the AI element (including the AI Cost Gap) set by the cost assessment process, and this will be recovered in full¹ from the later user(s) except where there is a 'wider boundary share'. Where there is a 'wider boundary share' set by the cost assessment process, this will be recovered from the transmission demand residual rather than the initial and later user(s).
 - Therefore, the Non-AI element is primarily (as there is some consumer sharing) being allocated to the initial user and so the later user(s) is/are not then liable for any of the non-AI element, nor is any non-AI attributed to the 'wider boundary share'.
 - This effectively means that the cost assessment process will apportion OFTO allowed revenue² related to non-radial offshore transmission assets into discrete components for the purpose of network charging i.e. a non-AI component, one or more AI components depending on the number of later users, and a 'wider boundary share' component, with the local network charging arrangements recovering each of those components in different ways from different parties. On the basis of our understanding, we are supportive of this as a position as it is a requirement for us from the network charging perspective.

¹ By 'in full' we understand this to mean no consumer sharing whatsoever, unlike the Non-AI component where there would be under normal offshore local charging arrangements. However, this requires clarification as it partly depends on how the AI Cost Gap value is derived in the early-stage / gateway assessment process. For example, would Ofgem expect any of the costs of an offshore transmission substation onshore to be included in the AI Cost Gap and so recovered from the later user(s) rather than from consumers?

² Noting that the total allowed revenue will fluctuate each year and doesn't link directly to the capital costs so we assume that Ofgem will split the capital costs into the necessary categories which would allow us to then apply the relevant proportions to the allowed revenue i.e. in alignment with our normal process when setting tariffs.

Use of Transmission Demand Residual and AI

- We support the use of the transmission demand residual to temporarily cover the AI Cost Gap prior to the connection of the later user(s) and to cover the circumstances where a later user does not connect, albeit this cost risk is expected to be partially offset via user commitment arrangements.
- We support the use of the transmission demand residual to cover any 'wider boundary share' (if any) related to the non-radial offshore transmission.

Changes to infrastructure prior to a later user connecting

- In the event that a later user requests to modify their connection agreement resulting in changes to infrastructure, it would need to be considered on a case-by-case basis involving the impacted parties, including the initial user, as ultimately it would be the initial user delivering the infrastructure under the very late competition model. Under the late competition model there are already provisions in place under the codes to facilitate changes to OFTO infrastructure, although it has not been tested in practice.
- Any change to infrastructure once the early-stage / gateway assessment or cost assessment has been undertaken will require the appropriate assessment to be revisited to adjust the AI values under the very late competition model if required, or the OFTO allowed revenue under the late model if it is beyond the point at which an OFTO has been appointed by Ofgem.

Extension of the MITS

- We agree the current arrangements do not currently reflect the possibility of an offshore transmission MITS Node. However, they do arguably reflect (by extension) the possibility of an onshore transmission MITS Node located offshore. However, the charging arrangements in relation to the existence of such a node are unclear and at least one code modification may be required to clarify those arrangements.
- There are several challenges in relation to clarifying charging arrangements, such as the one above in relation to the boundary between local and wider charging, as well as others in relation to the creation and/or allocation of generation and demand zones for wider charging purposes. In collaboration with stakeholders, we continue to develop changes to clarify charging arrangements for non-radial offshore transmission developers.
- Whilst we considered potential network charging challenges in our *Industry Code, Standard and Licence Recommendation Report*³ it was based on geographically offshore assets being offshore transmission. As some of those assets are instead classified as onshore transmission there are different challenges. For example, subject to DND and ownership boundary clarifications, we may no longer need to introduce the concept of an offshore transmission MITS Node, as considered above. However, we still need to consider zone creation/allocation and offshore/onshore charging interactions geographically i.e. where there is a mixture of offshore transmission and onshore transmission geographically offshore.

³ <https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design>

Interaction with the €2.50/MWh annual average limit on generator transmission charges

- When considering code modifications, we aim to ensure that any changes to the charging methodology meet legal requirements, including compliance with the ITC Regulation.

It is also worth noting a couple of minor points of clarity as follows.

- Paragraph 5.13 refers to 'code modifications' and it should say 'a code modification' as there is only one code modification related to user commitment. This code modification can be found here⁴.
- Paragraph 5.24 should say 'transfer of power' rather than 'dispatch of power' based on the function of the assets.

The above points consider both Chapter 5 of the Revised Minded-to Decision and Appendix 1.

⁴ [CMP402: Introduction of Anticipatory Investment \(AI\) principles within the User Commitment Arrangements | National Grid ESO](#)

As a result of this Revised Minded-to Decision we have considered the potential impact on our proposals and a couple of new elements require further consideration as follows.

- A late competition model introduces a new dynamic to amending user commitment arrangements. Whilst there could still be a period between early-stage / gateway assessment where the later user(s) need to be liable for and securing any AI, the party constructing and commissioning the AI will now be an OFTO rather than the initial user. This means that the OFTO can potentially provide AI spend and spend profile figures to the ESO to calculate the liability and security for both the initial user and the later user(s). As a result, further change may be required to the System Operator Transmission Owner Code to facilitate and ensure that the later user(s) continue(s) to be liable for and secure the appropriate value for the AI spend under a late competition model. We would also need to ensure that the initial user is not liable for and securing any AI under those same arrangements.
- If our understanding about the 'wider boundary share' in the context of user commitment arrangements, as set out above, is incorrect there could be changes required to apportion 'wider boundary share' user commitment liability to TOs.