

Regulation and Policy

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Offshore Electricity Transmission: Consultation on efficient network coordination

Dear Jon,

Thank you for the opportunity to comment on your consultation on efficient network coordination. We remain supportive of the OFTO regime and the broad initiative to introduce further network efficiency, although we believe that some significant improvements are required in order to make the regime and the proposals presented in this consultation more workable. We continue to be extremely uncomfortable that the output from our windfarms is totally dependent on the OFTO performing and maximising the availability of the OFTO asset.

In the current economic climate it is becoming increasingly difficult to get funding for projects. Any new initiatives to develop the offshore regime need to remain flexible enough to allow projects to be delivered in optimal timeframes at lowest cost. It is not always possible to obtain perfect foresight as to the optimal network design before a project is built and therefore the offshore regime should not introduce any unnecessary delays to existing or future projects as a result of measures to introduce offshore coordination. However, where the NETSO and the developer identify that offshore coordination is the optimal project solution, we fully support measures to introduce further transmission network efficiency. In addition to the measures proposed in the consultation, we believe that Ofgem should encourage the coordination of project phasing by providing upfront cost recovery guarantees in relation to oversized assets (subject to their economic efficiency assessment). This would ensure that offshore developers are incentivised to take on risk which would ultimately result in lower costs for all system users. It should be noted that the cost savings identified by Ofgem's consultants under the OTCG work will only be realised if the risks and ongoing costs of offshore coordination are shared by all system users.

One of the key reasons generator build has been the only mechanism used by developers to date is that it allows developers to manage liabilities and costs, especially with respect to stranding risk, in line with actual financial commitment to the projects. Any mechanisms that move away from this and put more liability and/or cost on developers in advance of financial close are unlikely to be taken up widely.

Yours sincerely

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CHAPTER: Two

Question 1: What are your views on whether:

a) the connection process (including the relevant industry framework) supports the design of an efficient and coordinated network?

Ofgem should avoid introducing any further delays or risk to the connection process as a result of measures introduced to facilitate offshore coordination. We have already encountered changes to the onshore interface point for one of our projects and would be very concerned by the introduction of any further uncertainty to the offshore regulatory regime.

We believe that there is some scope within the current connection process to facilitate coordinated solutions. For example, the IPC process allows for consideration of associated works, however, there are existing primary legislation challenges that would be required to allow oversized assets to be consented, beyond the needs of an individual Nationally Significant Infrastructure Project (NSIP) (either generation NSIP or transmission NSIP), to be consented. There are certain difficulties in particular relating to transferring the rights conferred from a Development Consent Order (DCO) consent to a third party(ies) and also issues relating to obtaining any Compulsory Purchase Order (CPO) necessary for onshore infrastructure sought as part of an NSIP.

Further, the AI architecture technical information assessed as part of “Associated Works” in any Environmental Statement (and hence represented as the “boundary of development” in the context of the “Rochdale envelope”) would need to be factored in, assessed and agreed via formal consultation before any application was made. Subsequent DCO (key consent) variations to extend or amend proposed works to cover AI, post consent, is rendered virtually impossible by the proposed regulatory framework surrounding formal variations for DCOs¹. Therefore, we believe that any further changes should be carefully evaluated and justified.

b) the NETSO needs further powers to develop an efficient network?

We recognise that the NETSO has a key role to play in offshore network planning and the facilitation of offshore coordination. However, we are concerned that some changes to facilitate coordination could lead to further uncertainty and delay in relation to existing connections and therefore, we believe that the impact of any increase in the role of the NETSO needs to be carefully evaluated and justified. We also believe that there are a number of areas where further process clarity in relation to their existing powers would be beneficial.

c) there are any barriers to the NETSO taking on an enhanced role in network development?

Long term, development of a co-ordinated offshore network must be progressed with harmonisation of international energy markets in mind to realise EU Energy targets and to balance the various forms of renewable generation across different geographical regions, it is not clear how the NETSO would develop this holistic overview.

Any changes would need to be carefully considered. The NETSO already has the

¹ [Planning Act 2008: procedures for revoking or making changes to development consent orders for nationally significant infrastructure projects - consultation: Summary of responses.](http://www.communities.gov.uk/publications/planningandbuilding/dcosummaryresponses)
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ability to propose coordinated solutions through the connection offer process. We believe that it is important that the developer also has a key role in network development for individual sites to ensure that the NETSO considers technological advancement and site conditions. If NG had powers to unilaterally pursue a case for anticipatory investment for a particular project on the basis of facilitating coordination, this could open up our grid agreements and create further delays and uncertainty. It would be very difficult to progress projects under such circumstances unless the costs of a coordinated solution were fully socialised upfront (i.e. with no final sums or TNUoS charges being passed on to the developer).

Question 2: Do you agree with the proposed objectives for a reformed network planning document? Would other changes be useful?

If a new network planning document is developed, there should be a clear delineation between contracted capacity (as previously set out in the SYS) and the network scenarios (as previously set out in the ODIS document). There is a risk that information may be taken out of context if the information is not presented in the appropriate manner. Consultation should be undertaken with developers on network scenarios to validate the legitimacy of options under consideration. This must be carried out sufficiently far in advance of the final report to allow developers to submit robust responses. Sources of inputs into the cost assumptions for these scenarios should be presented to ensure the appropriate level of transparency, as differentials in costs can lead to fundamentally different conclusions.

CHAPTER: Three

Question 3: Do you agree with our initial proposal for a definition of AI and that the types of AI set out are those that need to be captured in an approach to AI?

In order to realise the benefits of offshore coordination, the definition needs to incorporate all potential sources of offshore coordination. Anticipatory investment should include spend incurred in relation to later phases of a project (for example, unavoidable advance works funded by the first phase to facilitate the second and third 500MW phases of a 1500MW project that would otherwise be subject to separate financial sanction decisions) as well as spend in relation to assets providing both local and wider benefits. This will provide clear incentives to developers to identify the most efficient network solutions which in turn will result in lower costs to all system users as a result of a lower overall cost of transmission assets. Following Ofgem's assessment of economic and efficient costs, any liabilities and costs over and above those associated with a particular phase should be socialised across all network users, until the offshore turbines associated with later phases become operational.

Assets with wider system benefits could be built by an OFTO or National Grid. Developers should not have to secure these assets because it would not be possible for them to take on such high exposure to shared liabilities. Therefore, in order for such assets to be developed, upfront liabilities would need to be shared amongst all system users. Developers should only pay for their use of assets with wider system benefits in their ongoing charges, once their offshore wind farms are operational.

Question 4: Do you agree with our initial proposed objectives and regulatory design principles for an approach to AI? Are there some which you see as more important than others?

We believe that the initial proposed objectives do not go far enough and should provide further incentives to develop coordinated solutions by socialising any costs or liabilities over and above those associated with a particular project or phase. Anticipatory investment should be provided following an economic efficiency assessment Ofgem to ensure that the stranding risk is minimised and timing of the investment is optimal. Without an upfront cost guarantee in relation to anticipatory spend, developers will not be incentivised to take on any additional risk associated with subsequent phases to minimise overall costs to all system users.

This type of anticipatory investment in relation to phasing is crucial to the consenting process. Where subsequent phases use the same geographic area, the impact can be minimised by carrying out as much civil works as possible in relation to phase one. We believe that the consenting regime requires us to develop our assets in this way in order to mitigate the impact of building these types of assets.

Question 5: What are your views on use of the connection application process as the platform for identifying AI opportunities? Could there be a need for AI to be identified outside of the formal connection offer process?

We believe that this process should take place outside of the connection application process. Otherwise this could have a significant impact on the connection application timelines and in some cases present an unacceptable risk of increasing project costs and liabilities without surety from NETSO that the project assets won't be stranded. Ofgem should give a view as to whether AI would be acceptable in advance of the developer receiving the connection offer.

Question 6: Do you envisage that changes to industry codes and licences are necessary to enable the connection offer process to identify AI?

The codes and licences should reflect the following; where a coordinated solution is identified as the optimal solution for a particular project, developers should not have to pick up securities or liabilities over and above those required for a particular project or phase. In keeping with the onshore regime and the principals of connect and manage, developers should also not have to pick up any liabilities over and above those required to connect the wind farm to the nearest onshore MITS. These principals should be also be recognised in the ongoing charging arrangements

We would be concerned by code or licence changes that make it harder to consent uncoordinated projects. Any changes should facilitate but not force coordination where it is not the optimal solution for the project in question. We do not believe that any major changes are necessary to industry codes or licences to facilitate the consenting process other than those specified above. We look forward to commenting on specific proposals in due course.

Question 7: Are there barriers to cooperation in connection offers being agreed where a development involves more than one generator? What actions do you consider are warranted to address these?

It would be very difficult for developers to accept liabilities which are dependent on financial commitment from other developers because of the loss of control of liabilities, and costs and the risk of potential stranding should a third party's

project not be progressed to build (for whatever reason). The only way of addressing these risks would be socialise the liabilities associated with the upfront final sums and ongoing TNUoS charges.

Question 8: Are there other parties that should be able to identify opportunities for AI?

No - developers are best placed to identify the optimal connection design for their projects with input from National Grid in terms of the impact on the wider network.

Question 9: What changes may be needed to ensure that assets that provide wider network benefits are designed, constructed and operated to provide a longer asset lifetime?

It is not clear if the cost comparisons of radial/radial + vs. coordinated took account of the need for longer assets lifetime in the case of coordinated solutions. The repowering of generation assets is something which the continued presence of connection assets may render very attractive in 20 years time and any anticipatory investment should consider the prospect of design life to include repowering timescales.

However, this issue needs to be carefully considered because building coordinated assets for a longer period of time may increase the costs for any integrated wind farm projects whose assets would otherwise have been designed to last for the lifetime of the wind farm. The costs of building such assets should therefore be shared appropriately to reflect the long term wider network benefits if the wind farm is not repowered.

Question 10: What are your views on whether a longer revenue stream for assets that have wider network benefits could create better value for consumers?

Ofgem would need to determine whether building assets for 40 years would be more cost effective than building assets to last for the current lifetime of the wind farm. If a longer revenue stream were determined to be appropriate by the Authority, individual wind farms should have their TNUoS charges adjusted to reflect the lower costs incurred over the lifetime of the wind farm or subsequently re-adjusted if repowering of the wind farm were to occur.

Question 11: What are your views on the best way to deal with possible interaction between assets with differing lengths of tender revenue streams?

OFTOs could bid separate revenue streams for shared, wind farm and wider network assets. Shared assets would need their costs to be allocated appropriately according to their system use through their TNUoS charges.

Question 12: Do you agree with these high-level user commitment and charging principles for AI?

We believe that the definition of wider system benefits used to qualify for anticipatory investment should include assets which benefit both the wider network and individual generators as well as assets for future project phases. Decisions should be made on a case by case basis where demonstrable cost benefits along with acceptable risk levels would result in lower costs to all parties. Ofgem should do everything it can to recognise and facilitate these types of anticipatory investment. Ultimately, in order to benefit from overall costs savings, the end user must share some risk and investment cost to enable anticipatory

investment to take place.

Question 13: What areas of the transmission charging regime may need to change to facilitate AI in the offshore transmission network?

The offshore transmission charging regime should only charge generators for their network use and should not pick up any additional costs as a result of being connected to a coordinated network which has benefited from anticipatory investment.

Question 14: Is there a need for greater, earlier clarity on how including AI within the scope of works might be treated under our assessment of costs?

Ofgem should provide a view prior to the developer receiving its connection offer as to whether anticipatory investment would be recoverable through the cost assessment process. Without this commitment it is unlikely that generators will provide commitment or support any exposure to unnecessary liabilities over and above that associated with any particular project phase.

Question 15: What are your views on the potential form of these Ofgem assessment stages? Should it be optional for generators to go through the gateways where they would be undertaking the subsequent works?

Ofgem should give as much upfront cost assurance as possible for both development work (consenting and pre-construction) and construction works associated with anticipatory investment. We also believe that Ofgem should provide further cost guarantees where there are any significant changes to the design of the proposed anticipatory investment. This flexibility is essential given the ongoing uncertainty that developers face in relation to their onshore interface point.

Question 16: Do you agree with the proposed high-level criteria for use by Ofgem if considering whether AI would be economic and efficient?

Ofgem should provide further rationale as to what it would consider to be economically and efficiently incurred costs. The wider the scope of works potentially permissible under AI, the more scope to lower the costs to all system users.

AI should be assessed in relation to the the size of the overall benefit of reduced costs to all system users in relation to the size of the upfront risks. AI should be quantified to reflect the opportunity cost of the advanced investment (incorporating the time value of money) for phases that could be delivered many years after the initial investment, and a quantification of the aborted cost risk should be made.

Question 17: What are your views on the appropriate timing of the possible Ofgem assessment stages?

Timing of the assessment stages must be consistent with the development programme milestone of generators (in part driven by The Crown Estate commercial agreements, which in turn are responding to government policy, but also in part driven by the capital funding profiles of large multi-national utilities). Once a generator has formally consulted on its proposals in the pre-application stage of a DCO application process, this makes the project plans available in the public domain. Any subsequent changes to these plans are then scrutinised publicly which can make the consenting process even more challenging.

Question 18: What information should in your view be provided as part of any published guidance that supports AI approval?

Ofgem should provide detailed guidance as to what would be considered as efficiently incurred costs. Comparisons between NETSO and generators often yield disparities in the cost assumptions made.

Question 19: Should there be additional requirements to share information with Ofgem to help streamline Ofgem's assessment of AI for project? What information should be included?

Question 20: What are your views of the different options for who should undertake pre-construction works for assets that are driven by wider network benefits?

Question 21: Could OFTOs potentially have a role in undertaking pre-construction works for assets significantly driven by wider network benefits? How might this work?

Question 22: Do your views of the attractiveness and feasibility of an early OFTO build option differ for assets that are driven by wider network benefits?

One of the key reasons generator build has been the only mechanism used by developers to date is that it allows developers to manage liabilities and costs, especially with respect to stranding risk, in line with actual financial commitment to the projects. Mechanisms that move away from this and put more liability and/or cost on developers in advance of financial close are unlikely to be taken up widely.

Question 23: Are there changes that can be made to improve the incentives on offshore generators in undertaking pre-construction and construction works for assets that are driven by wider network benefits?

Ofgem should socialise all costs over and above those required for a particular project or phase. This would help to mitigate the upfront risks of anticipatory investment for generators and ensure that the maximum amount of coordinated network benefits are realised subject to Ofgem's efficiency assessment.

Question 24: What would be the impact on the attractiveness of Generator build option for assets that have wider network benefits if additional delivery incentives are incorporated? Should the OFTO build option be the main focus for this type of asset?

It would be extremely challenging for developers to raise the finance required to build assets with significant wider system benefits. It would also be extremely difficult to secure liabilities associated with shared assets. Therefore the associated upfront liabilities associated with wider network benefits should be socialised in order to reduce the upfront risks faced by the developer.

Question 25: What are your views on how any distinction between "offshore generator focused" and "wider network benefit" assets should be made?

The distinction should be made on the basis of any assets over and above those associated with a particular project or phase. Assets offering both project specific and wider system benefits should be considered in relation to securities and charging in proportion to the amount of wider system benefit they offer and generators should have their charges adjusted accordingly. Such overcapacity should be assessed by Ofgem to determine whether it offers benefits to all system users within acceptable risk profiles. Such risks are likely to be lower in relation to project phasing but the rewards are likely to be much larger for

projects offering wider system benefits so an assessment will be required on a case by case basis.

Question 26: What role could commercial contractual arrangements have in ensuring that pre-construction assets are passed to the relevant party and the first developer can recover their costs?

Question 27: What changes may be needed to support the process? What would be the impact of requiring an OFTO to hold assets for future generators?

An OFTO could hold assets for later phases of a phased project where coordinated assets have been built for the benefit of later phases. This would enable a developer to recover its costs more quickly for coordinated assets and help to ensure that developers were appropriately incentivised to take on the additional upfront risk of assets associated with later phases.

Question 28: Will commercial arrangements and industry codes and licences provide sufficient access rights for shared assets? If not what changes may be needed to support the process?

The consideration for legally splitting the rights conferred by key consents to separate parties with an interest in the shared assets will need to be examined further. Generators will need to be satisfied that any OFTO consent assets are considered within the appropriate project envelope.

Question 29: Are there any other issues with shared assets that need to be considered?