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Dear Martin,

## **Open Letter: Offshore Transmission – update on co-ordination policy developments**

The scale of potential offshore generation, onshore generation, and interconnection capacity; coupled with the transmission needs of existing generation, means the requirement for extensive future transmission reinforcement is inevitable. To ensure the optimum level of transmission capacity (both onshore and offshore) is provided at the right time, it is vital that the network is developed in such a way to be able to respond to future User requirements. Pre construction works will be key in ensuring these challenges are met in the optimum way to minimise risk to the end consumer.

It is essential that pre construction works are taken forward in a timely manner to ensure that the optimal onshore / offshore solution is delivered and this requires a greater understanding of all possible options. This will ensure that wider network reinforcements are completed to meet contracted connection dates and that the transmission network is not an unnecessary barrier to the delivery of renewable generation. In order to avoid unnecessary constraint costs or expensive reinforcement works, anticipatory works will be required to differing degrees. Timely development will be essential if inefficient pre construction activity and/or significant delays to delivery of optimum network reinforcements are to be avoided.

We welcome Ofgem's work to facilitate greater co-ordination in transmission network development. Whilst differences in the onshore, offshore and interconnector regimes are inevitable, the work is rightly focusing on how to achieve decisions which give the best outcome for the consumer, the information required and the transparency surrounding such decisions. We look forward to seeing how the work undertaken by Ofgem will span these regimes, allowing for joined up decision making across onshore, offshore and interconnectors that is in the best interests of consumers.

Our thoughts on the specific questions raised in the open letter are provided below.

### **1. The availability of information around connection offers**

A significant amount of information is already placed in the public domain with respect to transmission network development and expected connections. This information is based however on the contracted background and does not include information on connections under offer or at a feasibility stage. Neither does it give any indication of the likelihood of all projects progressing as per contracted dates. It is this latter information that is classed as commercially confidential and it is not always our information to give, particularly where it concerns technology development as this remains the property of the manufacturer.

With a significant amount of GB offshore wind now contracted, there is little contracted customer information that remains that cannot be shared between parties. However, information that is subject to confidentiality restrictions includes any pre contract information and informal conversations with developers which may include progress against contract for example. This information is critical in determining the requirement for and optimum timing of delivery of wider network investment, and judging least regret anticipatory works.

Where situations have arisen with respect to commercially sensitive information, we have sought to enact bilateral arrangements to allow discussion between the relevant parties in order to facilitate transmission development, albeit with limited success. If this is to become the norm, it is likely that a framework change will be required to ensure that all parties are aware of, and comply with the obligations to share data.

In creating a framework change, three further issues will need to be considered. First, appropriate business separation will be required such that the party receiving sensitive information is doing so for transmission development purposes only. This will need to be kept distinct from the developer's generation activities. Second, there is an issue of timing. Projects are on different trajectories to commissioning and information may not always be available at the time required. Project A may, for example, be at the point of conducting seabed surveys whilst project B is at a feasibility stage. Third, any such framework will also need to apply to onshore generation, interconnectors and connection applications for customers outside the existing GB regimes.

However, even if the necessary information is available, our experience suggests that developers are reluctant to link their project to the development of others given the risks associated with project dependency. It is therefore not necessarily the lack of information that stops transmission development by others.

## 2. Timescales associated with connection offers

Ofgem raise the question as to whether the existing three calendar month connection process is sufficient in cases where the connection design is considered complex.

In a background where a significant amount of GB offshore wind is contracted and the complex analysis completed, it is arguable that this question is too late in terms of initial designs. We are happy with the three calendar month connection process and do not wish to raise a change to the process at this time. Where connections are more complex, there is facility within the process to request an extension to the allowed timeframes with agreement from the Customer and the Authority. This has so far proved to work effectively. However, we note that Ofgem's RIIO Initial Proposals raise the prospect of penalising for late delivery of connection offers (proposed licence condition ETC1) and would welcome Ofgem clarifying that where a connection process is extended with the agreement of the applicant that such instances would not be penalised.

Increasing the connection offer period to one greater than three calendar months is likely to drive increasing interactivity as more offers are in development at any one time. Furthermore, the more pressing issue with the connection process is not the timescales available for issuing the offer, but more the requirement to base offers on the contracted position which may or may not materialise.

## 3. Wider network benefits investment not taken forward by a developer

### *The role of the NETSO*

The **current** role of the NETSO with respect to offshore co-ordination is relatively shallow. With obligations to facilitate co-ordinated, efficient and economic transmission development, these are fulfilled through the facilitation of the connection offer process, the provision of information to the market and investment signals through the transmission charging process (though not for

interconnectors). Detailed transmission design is provided by the relevant TO (onshore, offshore) as part of the connection offer process and it will be up to that TO to decide whether to commence anticipatory works upon its network if it believes such works are required. It is within this TO that the relevant expertise sits as to the characteristics of its network assets and their future maintenance requirements. Under the current arrangements, the information flow on wider system requirements is limited as a result of commercial confidentiality and it can therefore be difficult for TOs / Developers to identify the need for anticipatory investment leading to sub optimal designs.

The fulfilment of the obligation to facilitate co-ordinated, efficient, and economic transmission development relies on influence and good working relations since the NETSO does not currently have the ability to mandate transmission design or anticipatory investment. Neither can it share the additional information required to justify any change in design given wider commercial confidentiality, other than that relating to the developer's specific connection. Its only recourse in a situation where it believes a potential design to be uneconomic or inefficient is to refer the matter to Ofgem. The decision as to whether an investment is economic and efficient remains with Ofgem.

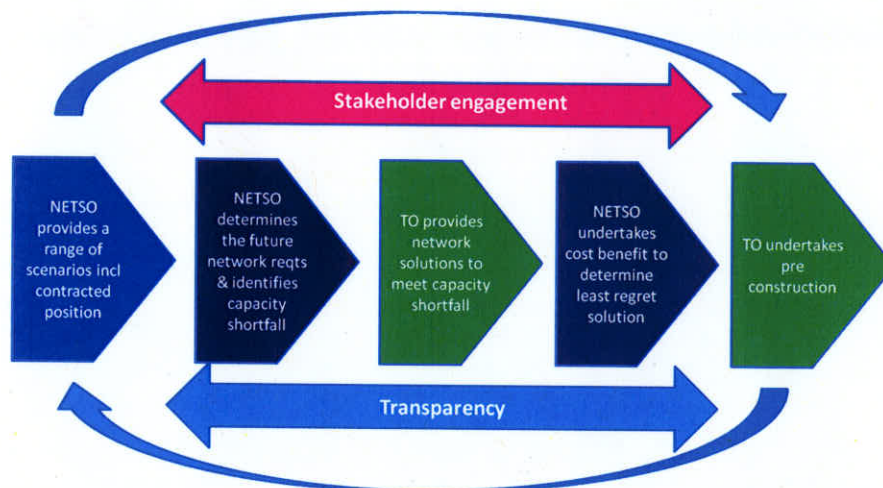
**Going forward**, given the multiple parties and TOs, the NETSO will need to be strengthened to properly allow for co-ordination of network design. In particular, given the confidential information, the NETSO is the best placed party to be able to justify the need case for increased network capacity where multiple parties co-exist. The NETSO may also play a facilitating role in establishing and maintaining technical requirements offshore and within offshore zones. The relevant TO however should be the party providing the detailed network solutions to the NETSO for consideration in any cost benefit analysis.

Pre construction activities therefore should remain with the relevant TO since they are best placed to deliver the detailed design stages given their knowledge of their transmission assets, the possible solutions for providing additional capacity or otherwise optimising the capability of the network in their footprint, and the existing stakeholder / local community interface. The TO must remain responsible for the detailed design, surveys and value engineering in order to get to an optimum design. This knowledge does not sit within the NETSO, particularly in an offshore transmission environment where the responsibilities sit with the OFTO or the developer. Where a willing developer / TO is not available, we agree that the onshore TO could fulfil this role.

### ***The process for anticipatory funding***

As part of the RIIO process, all onshore TOs are in the process of considering how best to deliver wider works where there is significant uncertainty in future user requirements. In an environment where capacity could be delivered through a number of approaches (onshore, offshore, operational actions, interconnectors), it is sensible to consider the utilisation of a single set of principles. Pre construction will become increasingly time constrained, so it is important that the ability to flex the timescales across the different classes of asset sits within any process.

In England and Wales, we are currently finalising the Network Development Policy (NDP) which sets out how wider works (including strategic works) will be taken forward. This is summarised below.

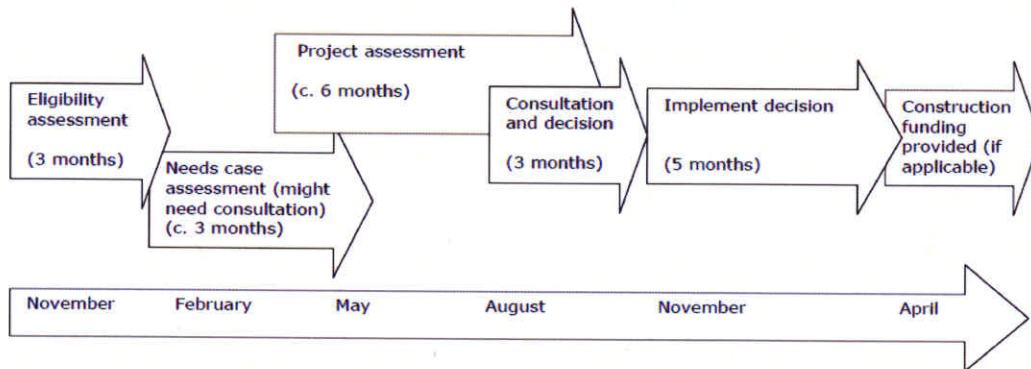


The NDP will facilitate the development of the optimum onshore network against a backdrop of significant generator uncertainty. In particular, the NDP allows for the consideration of a range of future network boundary capacity requirements against a number of potential scenarios designed to consider a broad range of future outcomes. Once a range of future network requirements have been identified, a selection of reinforcement candidates will be identified (this includes both onshore and offshore solutions), and be subject to further stakeholder engagement and customer feedback. The NDP process will then be used to determine, which (if any) of the reinforcements should be developed and subsequently delivered. This is against a backdrop of increased transparency and opportunities for stakeholder input as we go through the process and will allow the right information collection and release processes.

This NDP process is being developed to ensure that the least regret decision is taken (with respect to potential minimum costs solution seen by the end customer). This process will consider both onshore and offshore potential reinforcements, to ensure the most economic and efficient solution is identified, developed, and delivered. However, this can only be achieved if pre-construction activities, for both onshore and offshore options are taken forward in a timely manner.

We see no reason why similar principles should not apply to other users / classes of assets. In circumstances where multiple users are present, it is likely that the NETSO will be required to provide the need case for any anticipatory works since it is the only party with the holistic overview of the network. In such cases, it will be necessary for the NETSO and the relevant TOs / developers to work together in formulating any anticipatory funding submission. Where multiple users are not present, the role of the NETSO is more limited.

In terms of timescales, the guidance shown below has been published by Ofgem as part of the RIIO Initial Proposals with respect to Strategic Wider Works (SWW).



Source: RIIO T1 Initial Proposals for National Grid Electricity Transmission and National Grid Gas: 27<sup>th</sup> July 2012

Whilst a single process should be implemented across all users and classes of asset in line with the SSW process, Ofgem should consider reducing the actual timescales. An overall timeline of 18 months is too long when considering offshore transmission solutions and will introduce delays into an already constrained offshore timeframe. Timeframes for approval of offshore anticipatory investment will therefore need to be shorter and we suggest 6 months at the maximum to come to a decision.

### ***The required outputs from the anticipatory process***

We have in recent months been considering what outputs should be required under any anticipatory process given our recent application for funding on the East Coast. Outputs will need to vary slightly according to whether the party applying for funding is in control of the end to end process or not.

The main outputs of the pre construction work should include the following elements regardless of the party undertaking the works.

- The identification of the optimum offshore transmission solution justified by a robust cost benefit assessment and proposed delivery plan – whether this be developer specific requirements or include wider system benefits.
- Development of the proposed solution, including;
  - The identification of optimum landing points for any offshore connections.
  - The scoping of onshore system reinforcement requirements where necessary to support the final design.
  - The identification of onshore and offshore cable routes.
- Completion of relevant environmental surveys and impact assessments, definition of required technical specifications for the preferred option.
- Analysis of expected costs.
- All works required to support a consenting application.
- Detailed need case analysis supporting the preferred solution.
- Any required technical development work which should be made available to all where this relates to the development of transmission infrastructure.

The question as to whether the pre construction activities include consent will depend on whether that party is in control of the process from end to end. In the case of strategic wider works onshore, or option one under the open letter (between developers offshore), there is merit in the pre construction activities including consenting. Where pre construction is to be undertaken by a third party in the absence of either an offshore TO or as a result of unwillingness on the part of offshore developers, then the inclusion of consents presents a number of difficulties.

There are two possible forms of planning application when considering transmission infrastructure – a detailed planning application and outline planning application.

The submission of a detailed planning application requires information on technologies to be used, specific footprints, height of buildings, visual impact, noise mitigation strategies, transport options and requirements for getting to and from site amongst other things. Quite often, such information is only available once all final design details have been confirmed as part of the contracting strategy after the preferred supplier has been selected and any contract awarded.

It is not possible to obtain outline planning permission as part of the Planning Inspectorate process or where new overhead lines are required as there is no mechanism to do so. Outline planning applications under the Town and Country Planning Act for substations and buildings is less clear. However, any outline application needs to include indicative parameters (e.g. size, noise levels and visual impact) for the proposed installation. For full permission to be granted, the actual installation would need to be consistent with the parameters set out in the outline planning application. The risk with this form of application however is twofold.

First, in order to cover the range of design options that may be submitted by different suppliers as part of the Invitation to Tender (ITT) process given the relative infancy of the likely technologies, the indicative parameters within any such application will need to be broad, tending towards the upper range in all categories. 'Worst case' scenarios such as this tend to be rejected by planning authorities. We adopted this approach for the Western HVDC link at Kelsterton and planning permission was refused – primarily as a result of the large footprint requested to cover the range of designs being offered by suppliers, but compounded by our inability to answer detailed construction questions which were lacking until the preferred supplier was selected and the final design confirmed.

A more conservative set of parameters within the planning application may have achieved approval but would have left suppliers with difficulties in delivering a design to meet those parameters, and hence the revocation of planning permission or increased costs.

Second, as part of the tendering process for late OFTO build, Ofgem suggest that the responsibilities for any ITT for supply of assets and subsequent contract award sit with the OFTO or the constructing party. It is right therefore that the consenting activity also sits with such parties. To do otherwise, introduces additional risk into the process whereby the party with the responsibility to deliver the project could face consenting conditions that they are unable to meet or restrict the design options available to them. Given the infancy of HVDC technology, the span of designs likely to be offered at this stage is wide as manufacturers seek to innovate and push the technology boundaries. It is therefore very difficult to second guess the designs and parameters likely to be offered as part of the ITT process ahead of supplier selection.

### ***The need for additional separation obligations***

Business separation requirements are an important feature of incumbent onshore transmission licensees. Sufficient data separation requirements are in place with respect to the NETSO and the onshore Transmission Owners, something which we have sought to clarify further as a result of the organisational design review that has recently completed within National Grid. This is also true of any unlicensed business under the wider National Grid umbrella.

The extent to which separation is evident within other offshore parties is less clear. The undertaking of pre construction activities whether for the wider benefit of the transmission system or for specific developers is likely to require access to wide ranging generator information both offshore and onshore.

The current framework uses the concept of boundary of influence whereby commercial and technical details are shared with a prospective transmission developer in order to allow the design of the optimal solution. This information is shared under the STC for the purposes of developing the transmission system. As with onshore, Ofgem should consider whether all parties undertaking third party pre construction activities should be subject to separation requirements - onshore TO, generator or OFTO

given their likely desire to also construct this and other infrastructure. This would allow for a level playing field within any tender process to subsequently appoint the constructing party.

Ofgem, as part of the open letter, also raise questions as to the need for certain assets to be transferred across from the third party to the successful bidder. It is not clear from the letter as to what type of assets Ofgem have in mind and further clarity on this point would be welcome.

Clearly, any third party undertaking pre construction activities should make available all design information, environmental surveys and rationale into Ofgem's data room as part of the tender process. Wider technical development information should be made public for use by any interested offshore transmission designer. This would facilitate the drive for compatibility and standardisation, thereby avoiding duplication of effort. This is in line with our proposed approach under the East Coast funding request.

We are happy to discuss our views contained within this letter further should that be helpful. For further details, please contact Louise Wilks ([louise.wilks@nationalgrid.com](mailto:louise.wilks@nationalgrid.com)).

Yours sincerely,

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**Director, Transmission Network Service**