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Dear Gareth,

Consultation on a proposed framework to enable coordination of offshore transmission

The Consultation focuses on the central issue of how best to encourage the taking forward of anticipatory investment in order to ensure the delivery of a coordinated offshore transmission system. It identifies three categories of anticipatory investment, the roles therein and raises some interesting questions around these. It does not at this stage identify all the issues that might arise with the different categories, and needs to recognise that there may be limited scope for Category 1: Generator-Focused Anticipatory Investment (GFAI) and Category 2: Developer-Led Wider Network Benefit Investment (WNBI). These two categories of investment rely on the developer carrying out investment for the benefit of a subsequent and sometimes competing project, in addition to that required for their own.

Developer's priorities often do not align with the objectives underpinning the building transmission infrastructure which may also benefit their competitors. Instead, they often want the quickest and most certain way to market for their wind farm, and without dependency upon other projects for the provision of capacity. Coordination across multiple parties, whilst very achievable, does take time. For coordination to work well, all parties will need to be committed, mutual benefit identifiable and have clear responsibilities. Different drivers and / or timescales will make this problematic, with any project likely to proceed at the pace of the slowest party.

The Appendix contains our responses to the specific questions raised within the Consultation and focuses more on the possible additional roles and responsibilities outlined for both the NETSO and the TOs. We are comfortable with the proposal that the NETSO supports any party applying for anticipatory funding with the necessary need case. Further consideration will need to be given to the issue of information confidentiality, how best to deliver a need case that is suitable to all and whether additional business separation obligations on developers or OFTOs may also be required.

The additional roles for TOs identified in the consultation appear reasonable and akin to the complete pre-construction funding request submitted by NGET for the Integrated Offshore Transmission Project (East) in April 2012. TOs are likely to consider any pre-construction request on a project-by-project basis after Ofgem have provided clear information on what is expected from the pre-construction activity and issues of risk and liability are resolved. TOs would not expect to be held liable for pre-construction works where these were completed to the required standard.

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Whether the fragmentation of pre-construction and delivery roles is a sustainable model into the longer term is a question that remains to be answered and will very much depend on the allocation of risk and reward between the various parties. For example, a purely pre-construction role for offshore assets is likely to become increasingly difficult as the separation of roles curtails the opportunity to transfer learning from the construction process into any pre-construction role. Similarly, not all TOs may wish to take on this role if it does not result in asset ownership. Given the issues identified, it is important that the ITPR project also considers alternative delivery models for integrated offshore networks.

The additional roles are outside the scope of our existing licence obligations and as such are not funded under RIIO. Additional resource is necessary to support the activities identified and funding is likely to be needed in two ways - firstly, a base level of funding for the NETSO, and secondly a project specific funding for any TO pre-construction activity on a case by case basis.

This response is on behalf of National Grid Electricity Transmission plc and is not confidential. We are happy to discuss our views contained within this response further should that be helpful. For further details, please contact Louise Wilks (louise.wilks@nationalgrid.com).

Yours sincerely,

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Appendix 1: Detailed questions within the Consultation

Q2.1 Do you agree with our high-level framework for the development of coordinated offshore transmission assets?

We broadly agree with the high level framework laid out in the Consultation for the development of coordinated offshore transmission assets. However the consultation should recognise the following issues:

- Developers should be subject to the same requirements as TOs, for example the timely delivery of investment, or obligations with respect to information confidentiality. It may be necessary to review the suite of obligations to ensure consistency.
- Reluctance of developers, due to differing commercial interests and the limitations on information sharing imposed by competition law, to work together and share project-specific information
- Stranding risk of anticipatory investment will need to be managed appropriately, i.e. in considering the risk of stranding the benefits to consumers of anticipatory investment are not overlooked.
- The importance of not causing unnecessary delay to forthcoming projects.

Q2.2 Do you agree with our expectations of how coordination opportunities will be identified for parties to progress? Are they consistent with existing roles and responsibilities of parties with regards to the development of the network?

The TOs, NETSO, developers and OFTOs will need to cooperate in order to deliver cost efficient solutions, which not only ensure that consumer's interests are fully considered but also consider environmental aspects for all works. Currently coordination is working in only a limited number of areas and not as effectively as possible as it relies on cooperation from all parties. Further work is required to ensure cooperation works effectively and delivers the right outcome for the consumer.

Ensuring co-operation

Developers often have very different commercial interests and are reluctant to take on development of significant assets which primarily provide wider network benefits for others. These assets require significant management and resource input for which developers may not have the expertise to manage the asset risk, particularly when developing innovative solutions which may be required to drive down the costs. Therefore stronger incentives are required to encourage developers to co-ordinate to find the most efficient solutions for wider network benefit works.

Ensuring the development of the right network

Furthermore, consideration needs to be given on how best to provide comfort to a second party that the first will build the network in a timely and relevant manner such that they are subsequently able to connect without undue risk to their project. There is at present no process or set of obligations by which to ensure this (unlike with the onshore TOs). Onshore, the TOs are subject to obligations that ensure the right network is designed and built for all parties that facilitates competition, and is economic and efficient. These obligations are not present in instances of projects being developed by a third party on behalf of another developer. In such instances, developers should be required to sign on to a "lite Licence" which imposes appropriate obligations in respect of coordination, cooperation, data confidentiality.

The role of the NETSO and the TO

Given the multiple parties involved, the NETSO's role will need to be strengthened to properly allow for coordination of network design. The NETSO has the holistic view of the overall onshore and offshore network and so is best placed to identify the need for increased capacity where multiple parties co-exist. It may also play a facilitating role in coordinating 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 should therefore remain with the relevant TO, with appropriate risk and reward structure agreed with Ofgem. 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 whilst recognising the need for engagement with relevant stakeholders at this point. Consent activities however will need to sit with the procuring party in order to avoid unnecessary limitations to design or innovation.

Q2.3 Do respondents consider that changes to the CION process are needed? Should there be more formalised opportunities for developers to engage in the process given their experience on offshore delivery? How could this impact on timescales for agreeing connection offers?

The Connection Infrastructure Options Note (CION) is a document which sits under the SO-TO Code (STC) and as such the use by developers is voluntary. To date, CION's have largely focussed on radial solutions with any integrated solution developed separately and included within an appendix. We have previously discussed the need for a "lite Licence" approach that would strengthen the role of the CION in developing transmission infrastructure options. In addition, we believe there are three key improvements to CION detailed below which may enable it to become appropriate for use in integrated design options. These changes will need to be transparent and allow for stakeholder engagement where applicable.

Improve the capture and evaluation of innovation within design

The CION does not currently progress technology innovation as part of the process which is often ruled out at the early stages as a result of the risk profile. The inclusion of any evaluation of technology innovation in the CION would help overcome different risk expectations for each participating organisation. A drive towards an innovative solution can bring further benefits than simple efficient implementation using proven technologies.

Expand to include the impact on onshore and offshore networks

We are currently reviewing how the CION could be expanded further to illustrate all network topologies, including onshore and offshore networks. The CION should go beyond identification of possible connection points and explain in more detail the impact of each to both the onshore and offshore networks, improving the evaluation of the overall coordinated network. This may parallel what is being rolled out under the Network Development Policy (NDP)[1]. The CION should also move away from finding the optimised solution against the current contracted background to finding the optimised solution against a background which includes connections under offer or at a feasibility stage so that it becomes more forward looking.

Accommodate and incentivise multi party discussions

[1] The Network Development Policy 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. However, it currently only applies to England and Wales onshore, though we have proposed (under the ITPR consultation) that it could be widened to cover the entire GB onshore and offshore network.

Currently the CION tends to be limited to NETSO, onshore TO and one developer. With the large scale of connections already contracted with proposed solutions stretching across Round 3 zones and often multiple onshore TO connection points, facilitating multi party processes would remove some complexity for all. However, it is easy to see that there will again be a need to incentivise generators to engage fully, as this could mean they are being asked to work cooperatively with their direct market competitors.

Q2.4 Are there any barriers to improving the CION, if so, what barriers exist and how could they be addressed?

There is an obligation placed on the relevant TO as part of STC to use the CION for its original intended purpose of recording high level design options. It was not originally intended as an optioneering process or to be able to find the most economic and efficient integrated solution for both onshore and offshore. We recognise that the requirements of this document have now changed and that integrated solutions are required. We will work with the industry to develop the CION to make it appropriate for this change which could include formalising the use of the CION if deemed appropriate by the industry.

Q2.5 Do respondents anticipate issues with the design or delivery of transmission assets where generation projects are reliant on works to be undertaken by another developer? If so, what would be the appropriate mechanisms to address such issues?

Based on our discussions throughout the connection offer process, developers are reluctant to invest for future development that does not benefit their current project. They also do not wish to be reliant on other developers for their projects in terms of time, technology and financing.

Achieving co-ordination

We mention in our covering letter that the instances of Generator Focused Anticipatory Investment (GFAI) and developer led Wider Network Benefit Investment (WNBI) are likely to be limited. To provide some clarity on why we take this view, it is worth reflecting on the challenges we have faced to date in the identification, development, and delivery of a coordinated integrated approach. In doing so, we briefly describe some typical issues faced and the objections made under GFAI and WNBI, in taking forward the optimum integrated network solution.

In the following example of an actual instance of GFAI.

- Party A is seeking to connect 600MW of generation in 2017 to part of a network
- Given there was no indication of any other party developing a project in this area, the connection design and therefore the Bilateral Connection Agreement (BCA) is premised on a simple AC connection optimised around their requirements
- Party B subsequently applies to connect further 600MW in 2018 to the same part of network
- In seeking to connect both parties, two potential options are available, these being:-
    - Develop two independent AC connections, optimised around their individual requirements, or
    - Develop an integrated solution, based on HVDC solution, which can be designed to accommodate both parties at significant saving, with little redundancy risk.

Discussions with both parties concluded that, whilst they recognised the potential benefits of such approach, neither were prepared to accept an offer based on an integrated solution, predominately for the following reasons:-

- Party A was reluctant to accept integrated solution as it would require them to:-
    - Develop a network solution which makes life of their competitor simpler

  - They would be committing to additional expenditure, without knowledge of how this would be treated within the regulatory framework
  - The HVDC solution would require enhanced Asset Management skills which they presently do not have
  - The HVDC solution requires a convertor station, which would increase consenting challenge and increase risk.

- Party B was reluctant to accept integrated solution because:-
  - Their project is totally dependent on Party A developing connection assets for them. they are not convinced project A will progress to presently planned timescales
  - They are not confident that Party A has the asset management skills to deliver proposed network solutions
  - There would be no obligation on Party A to delivery to required timescales.

We have also had experience of instances where WNBI opportunities have been identified which would have allowed the connection of three (possibly rising to 5 parties) to a fully integrated network solution. This design approach was deemed the most economic and efficient as it allowed for connection on their preferred dates, minimised the risk of stranded assets (i.e. develop in stages, and all parties sharing each stage), significantly reduced overall costs and significantly reduced environmental impact of the combined project.

In bilateral discussions with each party, they were prepared to consider an integrated solution which incorporated their individual project (subject to resolving a number of regulatory issues), but at this stage, not prepared to contemplate entering discussions with other parties, with respect to producing fully integrated network solutions. The primary objections, raised with regards taking forward an optimum solution are:-

- They are presently competing to obtain development rights to the generation wind farms.
- They believe that their specific connection confers commercial advantages which would be removed by a fully integrated solution.
- The lack of clarity as to who takes the lead on such a joint project, with no one party wishing to be dependent on another party.

Technology development

Whilst the development of new technologies brings significant benefits in terms of cost efficiencies, reduction in environmental impact and speed of delivery, coordinated research and development will be required. This will ensure that potential benefits from the development of this technology are maximised to find the optimum system solutions and appropriate asset management skills identified to manage the inherent risk.

With this development of technology there is a risk that the first developer utilises different technology than the second developer uses. This different use of technology opens the respective developers to a different risk profile. Therefore there is a need for developers to coordinate their use of technology to minimise the associated risk.

Competition Law

As commented previously, competition law could be a barrier here, as developers are precluded from sharing confidential information about their projects with their competitors. This is something that a separate designer could solve as this could be used to avoid the transfer of information between competitors.

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Q2.6 To what extent could NETSO intermediation mitigate data confidentiality issues between developers? Are any further measures required?

It is unlikely that NETSO intermediation alone could solve the issues of data confidentiality between developers.

Data confidentiality issues arise in instances where it is necessary to share sensitive information about third party projects in order to facilitate the development of a piece of transmission infrastructure that has wider benefits. This primarily arises as part of the requirement to share the overall dynamic network model which contains information on all generator characteristics, both onshore and offshore and details how the network will work both pre and post fault. Much of the information contained therein is commercially sensitive but equally is required by network developers to ensure the network being built is fit for purpose.

Onshore, commercial confidentiality is less of an issue since transmission infrastructure is typically constructed by parties subject to the STC and therefore obliged to use the data for the purposes of transmission development only. Similarly, those offshore parties that are signatories to the STC are also captured in this way and present less of an issue.

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. This has been with limited success due to parties being commercial entities and thus often in competition for routes and equipment such as cables and do not want to be dependent on other parties. If this is to become a key role for the NETSO, 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.

The NETSO could facilitate (or, indeed, avoid the need for) the sharing of data between the parties involved using, for example, bi-lateral confidentiality agreements, as part of the offer process. This could however be a time consuming option, due to the competitive and commercial nature of individual projects. There would be no obligation for the parties to share while this is being negotiated. An alternative would be to place the obligation to have any such agreement in place under a relevant code. It will be necessary to carry out further consultation to agree what specific changes are required under which code.

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 and is distinct from the developer's generation activities. Further consideration will need to be given to the issue of information confidentiality, how best to deliver a need case that is suitable to all and whether additional business separation obligations on developers or OFTOs might be required. 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 information relating to onshore generation, interconnectors and connection applications for customers outside the existing GB regimes. Such a framework may also have advantages in managing competition law risks.

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 wider transmission development by developers.

An alternative would be for the NETSO to provide guidance and relevant parameters to enable the appropriate development of transmission infrastructure, thus ensuring network operability. The detailed analysis and the subsequent design however needs to remain the responsibility of the TO or developer. This would mean all information could be retained in one place. This would increase the

NETSO role but would enable the NETSO and TO's to use the established dynamic model which would aid developers more significantly than a static model would do.

Appropriate funding would need to be allowed for the NETSO to take on this enhanced role. Developers would also need to be comfortable with progressing designs that were provided by the NETSO without seeing all the data that underpins the requirement for that design.

Q3.1 Do respondents agree with our preferred option, to support the transfer of GFAI assets to the OFTO if security is provided to protect consumers against stranding risk?

Whilst the provision of securities will offer some comfort to the generator community and offer protection for consumers against stranding risk, there are a number of other issues which are also present in any generator decision to undertake generator anticipatory investment. Please see our answer to question 2.5.

Q3.2 To what extent do the current user commitment arrangements address the scenarios set out in tables 3.1 and paragraph 3.13?

The user commitment arrangements for generators set out in Connection and Use of System Code (CUSC) Section 15 will come into force on 1st April 2013. These arrangements were developed to ensure that TOs had sufficient financial certainty, through the NETSO, that any abortive costs would be reflected onto the relevant generators. Under the generator-build approach, there is no OFTO and the generator is in control of the cost and risks of asset build. Therefore the existing arrangements work, as the generator only has a liability to the NETSO for onshore works, and the NETSO only has a liability to the onshore TO. This is also true for the OFTO build approach although we recognise that this question is not raised as part of the consultation. The gaps in the existing arrangements are where there are multiple parties, or where an OFTO is created mid-way through the construction process.

In terms of user commitment arrangements being extended to address GFAI assets being constructed by a developer, Ofgem cover three key areas in the Consultation. It is not clear how security from the later generator during preliminary works and construction being carried out by the developer of the GFAI assets for the use of multiple parties would work in practice, but we are happy to work with Ofgem and the industry to develop this further and offer the following thoughts at this stage in the table below.

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	Pre transfer to an OFTO	Post transfer to an OFTO
Single Party	Current arrangements work for this scenario (i.e. developer will bear the full stranding risk)	S.15 CUSC would need to be changed to allow the cost of offshore works which have been passed to an OFTO to be included within a generator's user commitment liability.
Multiple Parties	There is no obligation on the first generator to connect the second generator. This is part of a wider issue that the first generator does not have the rights and obligations of a TO. There needs to be a robust and transparent assessment process to clearly identify the costs of the additional work to be undertaken by the first as a result of connecting the second generator.	S.15 CUSC would need to be changed to allow the cost of offshore works which have been passed to an OFTO to be included within a generator's user commitment liability. There is NETSO to OFTO liability for assets under construction, however there is no liability to the OFTO once the assets have been built, and therefore subsequent parties would have no liability for these assets. This would leave the consumer exposed to the abortive costs should later parties cancel before connection. There needs to be a robust and transparent assessment process during the OFTO tender to clearly identify the costs of the additional work to be undertaken as a result of connecting the second generator.

We believe after transferring GFAI assets to an OFTO for the use of multiple parties, continuing security from the later generator pending their connection could be possible if there were to be some regulatory development to allow this. To facilitate this, sufficient regulatory oversight would be required to ensure a fair allocation of cost and risk between the parties at all stages of the process. This is particularly relevant during the OFTO tender, as there could be a commercial incentive for the developing generator to misrepresent the share of cost and/or risk due to the subsequent generator.

We agree that in the situation where the assets have been transferred to OFTO but second phase of generator 1 project doesn't connect, security in respect of the later project is appropriate. This would ensure that the obligation on the NETSO to pay the OFTO Transmission Revenue Stream (TRS) in respect of the full asset value once the assets had been transferred. However once constructed, assets are considered to be sunk costs, and therefore the second generator would not have a liability for them under CUSC Section 15. This would leave consumers exposed to the abortive costs should the second generator cancel prior to commissioning.

Q3.3 Are there any barriers to extending user commitment arrangements to address any gaps identified in question 3.2?

In the main, we consider that the majority of issues raised in the previous question can be addressed through extension and development of the existing generator user commitment arrangements.

However, we consider that allowing multiple parties to connect though a generator-build arrangement may require significant regulatory work.

Firstly, allowing multiple parties under Generator Build introduces a number of tensions through the expectation that a generator would act as a TO in dealings with potential competitors. Generators have neither the rights nor obligations that a TO has, which include acceding to reasonable requests for connection, cooperating with other TOs, and providing relevant and timely information to the NETSO. It is obligations such as this that give generators comfort and certainty of connection. Without them, it is likely that later generators will require some form of commitment from the developing generator that their connection works will be completed in an economic and efficient way and be fit for purpose.

Secondly, the NETSO has a liability in the STC which requires it to pay TOs for the cost of abortive works as a result of a generator cancelling their project. This mechanism is detailed in Schedule 9, and includes a number of requirements on the TO to provide information to the NETSO on the assets being built. As generators are not signatories to the STC, these arrangements would need to be replicated in the CUSC, otherwise any monies recovered through user commitment would not be able to be passed on to the developing generator. As a consequence of this, the NETSO's licence would need changing to ensure that any difference between user commitment from the later generator and liability to the developing generator can be recovered through all users' transmission charges.

Further thought on these issues will be required.

Q4.1 Do you agree that the NETSO should support the needs case for developer led WNBI, drawing on relevant TO(s) as necessary? Do you consider changes to the NETSO licence or industry codes are needed to support this?

The current role of the NETSO in respect of offshore coordination is relatively shallow as the detailed transmission design is provided by the relevant TO. Given the multiple parties and TOs, the NETSO role will need to be strengthened to properly allow for coordination of network design. The NETSO should be integral to the need and timing of WNBI and key milestones including the submission for gateway reviews. Supporting evidence for WNBI should be based on a similar approach to Strategic Wider Works (SWW) under RIIO and should utilise the NDP process that we are developing as part of RIIO.

In particular, given the restrictions around 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 or Generator Build party however should be the party providing the detailed network solutions to the NETSO for consideration in any system and cost benefit analysis.

Pre-construction activities therefore should remain with the relevant TO or Generator Build party 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 or Generator Build party 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 potentially fulfil this role if the project warrants it. In the case of consent, this activity should sit with the procuring party to ensure innovation and design flexibility is not unduly curtailed.

The NETSO should however support the needs case for the developer and any anticipatory work since it is the only party with a holistic overview of the network and so can identify and requirements for the developer to size their projects appropriately. In such cases, it will be necessary for the NETSO and the relevant TOs / developers to work together to formulating any anticipatory funding

submission. Further clarity will be required as to the risk and reward structure associated with this additional NETSO role. If this required the NETSO to carry out more activities than currently and incur extra costs then potentially suitable licensing arrangement will need to be put in place for support these activities.

Q4.2 Are there any specific barriers to the NETSO sharing information required to support the needs case for developer-led WNBI with the appropriate developer?

This question raises similar issues to those identified in question 2.6 and the response contained therein should also be considered in respect to WNBI.

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. This is all confidential information.

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, the information often required by developers in order to develop an efficient and economic transmission design is that contained within the dynamic network model referenced in question 2.6 and often includes confidential supplier information. This information is critical in determining the requirement for and optimum timing of delivery of wider network investment, and judging the scale and scope of “least regret” anticipatory works.

More specifically however there appear to be two options for solving this issue:

Option 1 is for the NETSO to share the information that it is able to, with the relevant parties. There may be a need for more clarity for the industry to detail what data would be shared and what purpose this will be used for, which may be best done through code. The NETSO would need to put in place measures to make clear the confidential nature of the data, and make clear the intent of its use (i.e. only to be used for the purposes of developing specific WNBI) and intended recipient. There may be a requirement for additional business separation measures to be in place for developers. This will not resolve the issue of certain data that the NETSO (or a TO) are not able to share, i.e. generation manufacturer data – currently this is an issue that can’t be resolved. This may be dealt with however if developers were subject to a “lite” licensing regime and therefore signatory to the STC. This possibility will require further discussions with manufacturers and the wider industry.

Option 2 is for the NETSO to provide the need case throughout the whole process for the WNBI, and not just the initial option within the 3 month offer process. The NETSO could do this on behalf of all parties and share with Ofgem, with Ofgem taking a role in assuring developers of need case and subsequently cost recovery. This would mean that developers would not be party to detailed data, and would have to accept the design provided. In order for this to be viable, Ofgem would need to set out the level of detail developers will require to make the necessary investment decisions. This is not currently part of the NETSO role, therefore resource and funding requirements will need to be fully explored, as well as the practicalities of developers taking forward designs without being able to see the data that these designs were based upon.

Q4.3 What are your views on the criteria that Ofgem could use when assessing proposals for developer-led WNBI?

The criteria that Ofgem identify to assess proposals for developer-led WNBI appear reasonable. In addition, the assessment of environmental, non-economic social benefits and contribution to government policy should also be included in any assessment process. Project specific criteria should also be included which will require a degree of flexibility in the assessment criteria.

Q4.4 Do you agree with our proposal for the timing of the Ofgem assessment gateways to support developer led WNBI?

We do not agree that the assessment gateway should be linked to the connection offer process. The linking of the gateways to assigned BCA agreements is likely to be problematic as not all the necessary optioneering has been completed at the time the offer is issued. The information required for the gateway process is likely therefore to be incomplete.

The three month offer deadline is quite tight and although we are happy with that timescale in the main (particularly as for more complex offers this can be extended), it only allows for a limited amount of work to be undertaken in that timeframe. The timing of the gateway process should be defined on a case-by-case basis dependent on the overall project timeline. This will enable the timing to remain flexible and responsive to any changes in the project for as long as possible.

Q4.5 Are there some specific types of low regret WNBI that developers may be willing to take forward without gateway assessment?

Q4.6 Do you consider that there should be a de minimis threshold for low regret developer-led WNBI? What are your views on how this should work, while ensuring consumers are not exposed to significant stranding risk? Where possible please provide evidence of the types and costs of WNBI that you consider should be captured by the threshold?

In order to put in a framework to allow "low regret" investment to proceed without the need for a gateway process, Ofgem will first need to determine what "low regret" means – cost or specific category of asset. It should be recognised that low regret investments are not necessarily consequence free – for example, an addition of an extra bay on an offshore platform could be considered as low regret, but if designed incorrectly or delivered late will have significant consequences for the subsequent connecting party.

By removing the gateway process for such investments, all mechanisms for scrutinising the project have been removed and there will need to be some other way of ensuring that developers perform their contracted obligations. Alternative methods of assessment of works will need to be established and confidence provided to other Users/TO's that the infrastructure will still be developed as required.

Q5.1 To what extent do you think it would be appropriate for onshore TOs to take forward preliminary works for non developer-led WNBI?

Our responses to previous coordinated offshore consultations have set out our views on the role of the onshore TO in taking forward preliminary works for non developer led WNBI.

Where a developer or an OFTO is unwilling or unable to take forward WNBI, we agree that a role for the onshore TO may be considered. This should however be on a project by project basis where the project warrants onshore TO involvement and not a blanket obligation for all offshore pre-construction where no other willing party exists.

In the event that onshore TO's have a greater role in taking forward such preliminary works, a number of issues will need to be thought through carefully, not least the need for a clear trigger to commence pre-construction activities.

The activities included within pre-construction

The initial funding request submitted in April 2012 to support the pre-construction of the Integrated Offshore Transmission Project (East) was limited to design of the network and does not include the undertaking of any consenting activities associated with the preferred design. We have, in previous responses, discussed the reasoning for this – namely that consenting and the procurement of assets as part of the ITT should sit with the same party in order to avoid undue restrictions on supplier

innovation and design flexibility. The project in its totality would (assuming progression to further stages) therefore cover the following activities;

- Development of a robust need case for the Integrated Offshore Transmission Project (East)
- Understanding of the technology options available and the relevant timescales
- Detailed optioneering of the onshore and offshore system requirements, including seabed surveys as required
- A cost-benefit analysis of transmission reinforcements and system operator constraint costs for the different design options
- A review of commercial and regulatory challenges

This split of activity should also be reflected into more enduring arrangements.

Allocation of risk and reward

In defining the activities to be undertaken for this particular category of anticipatory investment, clarity is required as to which party is taking the risk at various stages and the reward that is commensurate with those activities.

Returns for onshore assets are spread across the design, consent and build phase and apply to the life of the asset, which therefore enables the granting of a lower rate of return than may otherwise be required for specific activities which carry a higher risk. Such risks are further mitigated by the flexibility afforded from controlling the programme from design to commissioning.

A key feature of the model outlined in the consultation is the split in responsibility between pre-construction and construction activities and as such the need to specifically address liabilities and remuneration accordingly arises. Key risks include;

- Asset Specifications – the pre-construction party will design the system design solution, taking into account its own in-house asset specifications, techniques and capabilities. Any ITT should be based intrinsically on this.
- System Functionality Specification – the system functional specification of the design solution will be specified during pre-construction activities, this could have risks and liabilities for the awarded construction party as they have to deliver to this pre-determined system functional specification.
- The technology strategy and the level of complexity therein will impact both the pre-construction and construction party.
- How best to undertake the seabed survey – best practice suggests sampling every 5km but there are risks that something untoward may arise when under construction that was not visible from the survey results.
- A changing generation and demand background may lead to a change of need case resulting in a change to the timing and/or preferred design solution.
- Balancing the procurement and supply chain timelines with the development timelines and the changing generation background. In many cases the supply chain issues will trigger commitment to a design and it will not be possible to react to changing background without incurring additional cost or introducing stranding. Therefore a robust least regret process will be required, with sign on from the Authority at appropriate gateways.
- Procurement strategy – the strategy undertaken (i.e. an EPC or a multiple lot) will dictate the level of risk and remuneration for both the pre-construction and construction party.
- The planning and consent strategy, whilst not the responsibility of the pre constructing party, will have a bearing on the level of risk and remuneration for both the pre-construction and construction party.

A large proportion of a project's strategy and cost is associated with risk management and can equate to circa 15-30% for a large project. The splitting pre-construction and construction activities creates further problems for efficient risk management as risk tolerance and mitigation strategies need to

transverse both activities. Ofgem will need to be clear on the expectations regarding the outputs of pre-construction and what constitutes an acceptable output – for example the requirements of any seabed survey. This will be key to any discussion regarding liabilities.

Clarity will be required on the treatment of liabilities and as such we expect to be held whole in relation to the pre-construction works for all cases other than negligence in fulfilling the required activities outlined above. Consenting and procurement needs to remain the responsibility of the constructing party.

Need for additional funding and resources

Developing programmes to support this work will require expertise and judgement on offshore construction. This will mean ensuring that the onshore TO businesses have sufficient resources and expertise to do this and additional funding will be required to secure this. This is particularly relevant to offshore survey activity which by its nature is expensive and seasonal (i.e. intermittent). If there is low workload in the area of non developer led WBNI, the work could appear inefficient.

We envisage that a base level of funding will be required to facilitate the support from the NETSO as outlined in the consultation, but that specific pre-construction works undertaken by a TO will be funded on a project by project basis.

By its nature, non developer led WBNI proposals will be physically separate from existing onshore TO assets and networks. This will lead to an element of fragmentation which will require good co-operation between the adjacent OFTOs/developers and the onshore TO in the offshore space. Sufficient obligations on the OFTOs/developers to participate in such coordination discussions will be required, as the onshore TO will have to move forward on the basis of assumptions made by and with respect to the OFTO and/ or developer. Again, appropriate incentives will need to be in place for all parties to ensure timely provision of the proposed solution.

It is worth noting however that not all onshore TOs may be amenable to undertaking this wider role, particularly if they are not allowed to subsequently bid / construct the relevant assets. It becomes a question of risk versus reward and whether, with limited financial, physical resources and a desire to protect intellectual property, other projects offer a better rate of return. Any TO decision to undertake pre-construction activity is likely to be on a project by project basis and needs to be a decision for the TO.

An existing OFTO body may be appointed instead but any such body will need to be mindful of business separation requirements and in particular the use of confidential information. NETSO supervision could still be handled in a similar manner to developer-led WNBI investments.

Timing the OFTO tender

Finally, Ofgem will need to think carefully about when to trigger the OFTO tender process in such an instance. If triggered too early, there may be insufficient design information to bid against. Too late, i.e. once the design is largely complete, then it is likely to introduce significant delay into the process. One way round this may be to bid in collaboration with a supplier such that the bidding team has the necessary flexibility to deal with design changes. This however has the prospect of reducing possible bidders given the limited number of suppliers of HVDC assets. This is one reason why we believe that alternative delivery models for integrated offshore networks need to be considered under the ITPR project.

Q5.2 What are your views on the criteria that Ofgem could use if assessing proposals at the first gateway for non-developer led WNBI?

In order for developers to be able to make a meaningful submission to Ofgem sufficient information needs to be available. This information is not available as the initial connection stage which is when

the developer would be making their submission under the first gateway. Therefore it is doubtful whether this would be the optimum timing for a submission under the first gateway to be made.

Q5.3 What are your views on using two gateways for non-developer-led wider network benefit investment?

We support the use of the two gateway processes providing there is no difference between the developer and non-developer led approach, it does not have the effect of delaying works and results in a decreased risk of redundancy. As mentioned above, it would also be necessary to ensure flexibility in the timing of the gateway process as it will be difficult to link this to the application process.

Finally, it would be more appropriate for the NETSO to support the needs case at the second gateway rather than the TO.

Q5.4 What additional incentives and requirements should be placed on preliminary works funding for non-developer led wider network benefit investments?

Although we agree with the incentives and the requirements for preliminary works to be delivered in a timely manner, we also believe that consideration needs to be given to ensure that developer-led WNBI is also delivered in a timely manner to prevent other users being disadvantaged.

All TOs / developers should be properly incentivised to take forward the preliminary works funding for non-developer led wider network benefit investments and that any conditions and incentives are appropriate.

Q5.5 What parties should onshore TOs be expected to engage, and what engagement processes should they follow before and during preliminary works?

We agree that all onshore TOs should be expected to engage with all affected developers, other TOs (including OFTOs), Ofgem and other industry parties and stakeholders. However, for this engagement to work, it will be necessary for this to be reciprocal with the developers. This should also be true of any party undertaking wider network development.