

Richard Clay  
Senior Manager, Offshore Transmission  
Ofgem  
9 Millbank  
London  
SW1P 3GE

Chris.bennett@uk.ngrid.com  
Direct tel +44 (0)1926 655949  
Direct fax +44 (0) 1926 653052

[www.nationalgrid.com](http://www.nationalgrid.com)

14 November 2008

Dear Richard,

National Grid Electricity Transmission (NGET) is pleased to respond to the Ofgem consultation 'Offshore Electricity Transmission: Competitive Tender Process'. As designate GBSO (Great Britain System Operator) for the offshore regime, NGET has a key role to play in ensuring the successful development, implementation and ongoing operation of the offshore regulatory regime.

Whilst National Grid still has reservations about whether the proposed approach of competitive appointment of offshore transmission owners is the best way to meet 2020 renewable targets, we have always stated that we are committed to making the current regime work and in this regard we believe we have made progress in further developing the role of the GBSO within the regime, and this is set out in this response.

The consultation document provides valuable further detail on how the tender process will work. In this response we set out our view of how the GBSO will interface with the offshore regime and provide a description of how the overall generator connection application process could work. The description of our role, and in particular how offshore networks will be designed in response to specific signals from generators will result in an incrementally designed offshore network, rather than one that is based on a long term, strategic view of the overall development of offshore generation. The onus will be on offshore generators to co-ordinate their applications to connect to the transmission system to realise any potential benefits from co-ordinating their offshore network connections.

We note that further consultations from Ofgem/DECC will be issued shortly, and look forward to gaining additional detail on the regime from these, and also from ongoing dialogue with Ofgem/DECC.

We are aware of an industry desire to undertake a walk-through of the enduring process and have previously discussed this with both Ofgem and the BWEA. With this in mind we are currently organising an event for 1 December 2008. We look forward to an active engagement at this event to explore various aspects of the overall connection application process.

We believe that it would be helpful to develop an overall timeline of the process showing the different stages from pre-application, application, tender process, agreement to vary stage, and highlighting how long these stages will take to allow developers to build these timescales into their own development timescales. NGET would be happy to work with Ofgem to develop this.

## **Role of NGET in the offshore transmission regime**

When the offshore transmission regime goes live, NGET will have its role as GBSO extended to cover the Renewable Energy Zone offshore. As such NGET will be responsible for directing the flow of electricity across any offshore transmission systems and will also form the single contractual counterparty for any party that wishes to connect to an offshore transmission system. In this section of our response, we outline our current thinking of how the connection application process will work and interface with the enduring tender process. Our thinking has been informed via an assessment of the information relating to the regime as published by Ofgem/DECC, general discussions with industry stakeholders and specific discussions with Ofgem. It also forms the basis upon which the industry code changes required to support the offshore regime have been developed. For the sake of clarity we have split the process down into a number of discrete stages.

### *Pre-application stage*

NGET has Transmission Licence obligations (contained within Standard Condition C11) to provide information '....as shall be reasonably necessary to enable any person seeking use of system to identify and evaluate the opportunities available when connecting to and making use of such system', and to indicate '.... those parts of the GB Transmission System most suited to new connections and transport of further quantities of electricity'. These obligations are discharged via the publication of the Seven Year Statement (SYS) which is published annually, and updated on a regular basis.

The SYS currently provides information about the capacity of the onshore system to accept further generation. This information may be useful for potential offshore generators, but it may be of greater use to give a more direct signal of where an offshore zone would be best to connect onshore, and the onshore implications of this.

By default any transmission systems within the Renewable Energy Zone, will become part of the GB Transmission System after Go-live, and hence the SYS will also cover this area. The SYS will then provide information about opportunities to connect to any OFTOs, although this is likely to be of limited use if OFTOs have been sized to connect individual windfarms only i.e. there is no spare capacity to connect additional windfarms

NGET is also aware that various pieces of work are currently underway relating to the longer term development of the Renewable Energy Zone and the deployment of offshore generation within it. These pieces of work include the Government's Strategic Environmental Assessment (SEA) and the ongoing work of The Crown Estate on further leasing of offshore development areas (Round 3).

It is NGET's view that information available from this, and other work, may provide valuable information to potential offshore developers. NGET is keen to work with industry participants to develop an appropriate set of information for inclusion within the SYS and intends to focus on this specifically at the industry workshop we are currently organising for 1 December 2008. We also expect to have further discussions with Ofgem in this area.

If any additional data is required to be published in the SYS then it will need to be ensured that (where necessary) the relevant obligations on third parties (for example onshore TOs, OFTOs) are in place to provide such data.

Additionally it will be important to assess the potential impact of the Transmission Access Review on the offshore transmission regime.

### *Initial application stage/design of initial offer to connect*

When NGET receives an application to connect to the Transmission System, it is obliged to provide an economic and efficient offer to the applicant within three months. We have considered how this obligation will be discharged for offshore applications, in particular considering that there will be no detailed offshore network design and that an OFTO will not be identified during the three months

available. Our thinking has been informed by how we have dealt with complex connection offers in the past (e.g. connections to Scottish Islands).

In its application, an offshore developer will provide information about where it wants to connect offshore. Any additional information (for example routing studies, seabed surveys) that can be provided at this stage by the applicant may be used by the GBSO in preparing an initial connection offer.

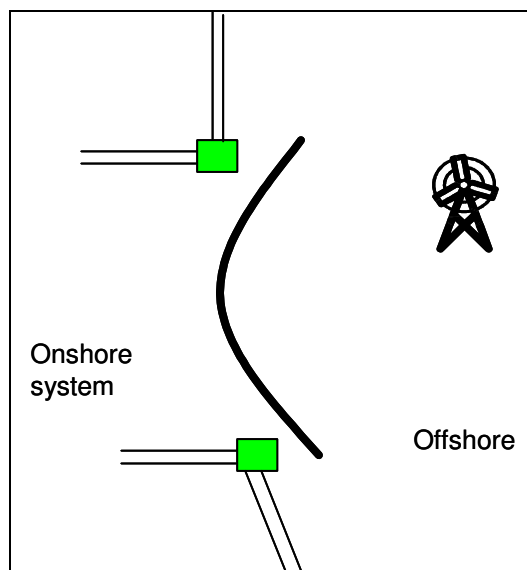
In preparing the initial connection offer, NGET will use any information supplied by the applicant and also make assumptions about the offshore transmission infrastructure required to connect to shore. These offshore assumptions and the costs they derive will be used to develop an offer that contains an optimum solution overall (i.e. when considering the offshore and onshore costs together). Therefore it will be important that there is transparency about the offshore assumptions made. NGET believes that it would be most appropriate to develop a set of unit costs relating to offshore infrastructure that can be used in the initial assessment of offshore costs. It is for further consideration how these unit costs should be derived, but NGET believes that they should be agreed with the tender panel.

An optimum solution will be developed by considering a number of different connections options for the offshore transmission system. For each of these options the onshore re-inforcement costs and potential onshore benefits will also be assessed to derive an optimum overall solution.

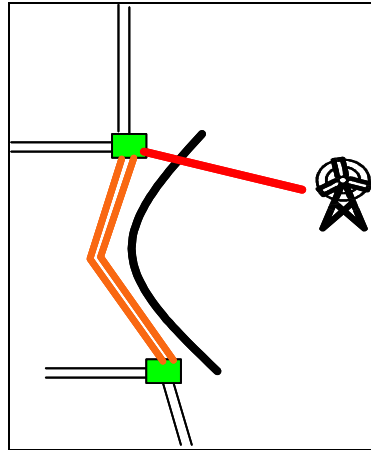
In summary, the high level principles adopted in the assessment of the offshore transmission solution are likely to be:

- Consider the shortest distance between offshore connection point and onshore connection points (unless specific information is provided that means that this cannot be the case);
- NGET would not expect to undertake detailed routing studies or seabed surveys, but will utilise this information if it is provided by the applicant;
- The use of an agreed set of unit costs for offshore transmission (as described above); and
- As assessment of the likely technology to be employed offshore (e.g. AC vs DC transmission).

A theoretical example of this is provided below. Consider the following application for connection:

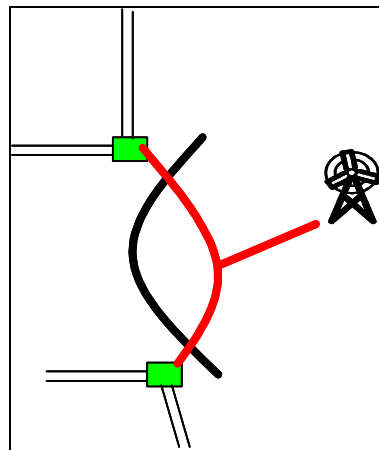


Here an offshore generator applies to connect in the proximity of two onshore nodes. In this example, the offshore generator is closer to the northern node. The following options would be considered:



Initially we would consider the shortest possible route to shore (as shown in red). We would also consider the onshore implications of this, and in this example, a new onshore line is required to connect the two onshore nodes, to accommodate the offshore generation.

We would also consider other options for instance:



Here, an offshore (potentially DC) link is considered between the nodes, as well as a short connection from the offshore generator to the new link. In this option no onshore re-inforcement is required.

Other options could also be considered, for instance a longer offshore connection directly into the southern node. Again the onshore consequences of this would be assessed.

The initial connection offer provided to the offshore generator will reflect an optimum solution for offshore transmission and the onshore implications when considered together. This information will also be provided to the tender panel.

*Provision of information from other TOs*

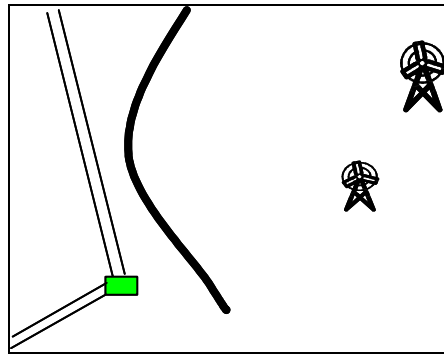
In some circumstances, for example when an offshore application is received off the coast of Scotland, or when an application is received in the vicinity of existing offshore transmission systems, it will be necessary for other Transmission Owners to assess the impact of different offshore options. To

enable this to happen, NGET will include offshore assumptions in the Construction Planning Assumptions provided to the third party TO, and request that TO to develop an optimum solution. It will be important to ensure that the requisite obligations exist on TOs to respond to this type of request in the necessary timescales. These obligations are likely to reside in the SO-TO code. We expect that ongoing dialogue with the GBSO will also be required.

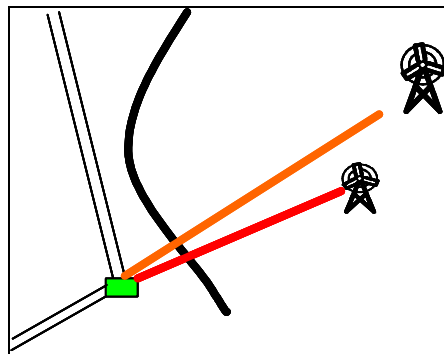
*Co-ordination of applications*

It is NGET's view that significant benefit could be derived from co-ordinating the design of offshore transmission connections for multiple generator connections. We note that, with this in mind, Ofgem/DECC are proposing to introduce annual tender windows to co-ordinate tenders. It would also be useful to co-ordinate the initial applications to connect to the transmission system, and it will be up to offshore developers to work together to bring their applications forward at similar times if these benefits are to be realised.

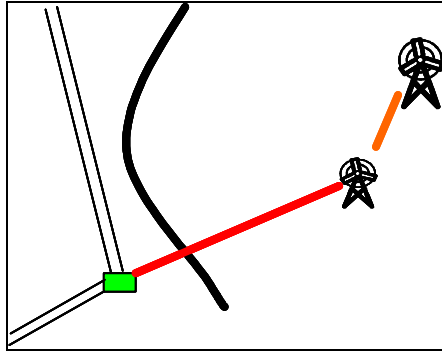
A simple example of how generator applications could be co-ordinated is provided below. Consider the situation where two offshore generators want to connect thus:



If these projects were not co-ordinated, then the connection solution could be as follows:



This may not be the optimum solution – either the offshore design or the onshore consequences – for the two projects when considered together. If the projects were co-ordinated, and the connection offers were considered at the same time, then a more efficient solution may be possible:



This solution would result in significantly less offshore infrastructure being required, and may therefore be more economic overall. Clearly the two generators would have to bring their applications together at similar times to realise any benefit.

As previously stated, we believe that this interpretation of our role as GBSO will result in an incrementally designed offshore network, rather than one that is based on a long term, strategic view of the overall development of offshore generation. The onus will be on offshore generators to co-ordinate their applications to connect to the transmission system to realise any potential benefits from co-ordinating their offshore network connections.

#### *Tender stage*

Details of the initial connection offer along with the different options that were considered will be provided into the tender.

NGET expects its sole interface with the tender process to be via the tender panel. We will respond to questions arising appropriately and it will be important to consider the resource implications of this as well as the time allowed to respond to questions.

The onshore implications of variant bids will be considered on a case by case basis, as requested by the tender panel. A variant bid could include a different landing point, but also could be a technology variation (e.g. DC vs AC technology) and it will be necessary to assess the onshore implications of this. The timescales that NGET has available to respond to variant bids will need to be considered (particularly as a third party TO may be need to be involved).

Additionally, it may be the case that a variant bid involves connected to a distribution system (this will not be considered as an option for the initial connection offer). If this is the case then it is expected that NGET will apply to the relevant DNO for the connection of the OFTO to enable the DNO to assess the implications. Again, the timescales associated with this stage of the process will need to be acknowledged.

#### *Post-tender stage/agreement to vary connection offer*

Once a preferred bidder has been identified, then we expect that it will accede to the SO-TO Code. A TO Construction Agreement (TOCA) will be provided by the OFTO to NGET that contains the details of the preferred offshore connection solution. NGET will use this TOCA to develop an Agreement to Vary for the initial connection offer which will be presented to the offshore applicant. Once signed, the process will proceed to further design, construction, connection and eventual operation.

#### **Detailed response on consultation chapters**

The remainder of our response to this consultation is structured as per the chapters in the Ofgem document.

## *Chapter 2 Transitional Projects*

We note the activities (described in 2.3) that need to take place so that the first transitional tender round can take place as soon as practicable after Go-active.

NGET will also be required to undertake various activities in order to ensure that its duties and obligations as GBSO are discharged. This includes obtaining information from transitional developers such as electrical line diagrams, operational characteristics and metering positions. Additionally NGET will be going through a process of migrating from the current (if any) contractual arrangements we have with transitional sites to contractual arrangements that reflect that the site will be directly connected to the transmission system once the new regime goes live.

NGET is in the process of engaging bilaterally with transitional sites. This process is progressing well and we will inform Ofgem of any issues arising out of these discussions.

## *Chapter 3 Overview of Regulatory Regime*

We note the comment in 3.2 that Ofgem/DECC will consulting in detail on the design of the regime, and we look forward to responding to this further document.

Paragraph 3.20 relates to the late delivery of onshore transmission assets. A proposal is described for the onshore TO to make late delivery payments to the OFTO. Furthermore it is suggested that it would not be appropriate for the onshore TO to then pass these costs onto consumers. NGET is of the view that this represents a significant departure from the current risk profile contained within the onshore regulated price control, and if such a proposal was introduced, that the onshore price control arrangements would need to be revised accordingly.

## *Chapter 4 Tender Process in the Transitional Regime*

In 4.12 and 4.13 the consultation highlights that applicants will need enough information so as to provide sufficiently detailed responses to the pre-qualification questionnaire. Amongst the information that is expected to be provided is information relating to industry codes and standards. NGET is currently considering how this information could be provided into the transitional tender process, and in what format to make it as useful as possible.

The evaluation criteria in 4.22 could be usefully augmented by adding, under (d), that evidence that the appropriate technical standards (e.g. IEC) can be met.

In 4.36 the consultation highlights the standard industry framework documents and that it is important that bidders are aware of them. It should be noted that some of the documents in the list (i.e. The Grid Code, The Connection and Use of System Code, The Balancing and Settlement Code, The Distribution Code and the Distribution and Use of System Code) are of secondary importance to bidders as an OFTO's primary interface with the industry framework will be via the System Operator – Transmission Owner Code. As indicated above, NGET is currently considering how information on the codes for which it is responsible can be provided into the tender process.

The evaluation strategy and process is described in paragraph 4.43. It is important that the right balance is struck during the evaluation between the revenue stream bid and the technical/operational competence of the bidder. It will be to no one's benefit if a low bid wins the work, and then the preferred bidder is unable to deliver either the construction of the project or an appropriate standard of ongoing operation and maintenance.

Paragraph 4.45 states that the bidder must provide a declaration that it accepts the generator's performance requirements. Further clarity is required on how these requirements are provided by the generator and what they will consist of.

We believe that thought needs to be given as to how a level playing is ensured between bidders, in particular where a generator affiliate bids to provide its own transmission assets. As the costs of the transmission are likely to feed into the generator's transmission charges, there is the potential for an affiliate to bid artificially low.

*Chapter 6 Tender Process in the Enduring Regime*

We note that a footnote to paragraph 6.1 suggests that enduring tenders may be undertaken at any point after Go-active. It is essential that for potential bidders and the GBSO that as much notice of any enduring tender is given. Further clarity on how such enduring tenders between Go-active and Go-live, and for sites that already have connection agreements with NGET is required.

In this response NGET has set out certain aspects of its role within the offshore transmission regime. Some of this represents significant change from the current role of the GBSO onshore. The consultation also highlights in paragraph 6.21 NGET will take on new obligations for example to provide information and technical assessment to Ofgem in the enduring regime. NGET is working with Ofgem to agree exactly what these obligations are, in particular in relation to NGET's assistance in the assessment of the technical proposals provided by bidders from an operational perspective and in line with our current role in the STC. Once these obligations are clarified and agreed, NGET intends to develop a forecast for the additional resources it will need to discharge them. NGET will be seeking an amendment to the current System Operator price control to fund these additional resources. It will be important to ensure that appropriately skilled resource is in place prior to any enduring obligations becoming effective.

The detailed description of our role, contained within this response, has been developed as the detail of the offshore transmission regime has emerged, and via a number of constructive meetings and discussions with Ofgem. If there are any aspects of this response which are inconsistent with Ofgem's understanding then the earliest possible indication would be helpful. If necessary please contact John Greasley on 01926 656313.

Yours sincerely

**Chris Bennett**  
**Future Transmission Networks Manager**