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Offshore electricity transmission - second scoping document

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Target audience: All with an interest in renewable energy and electricity transmission.

Overview:

Ofgem and DTI are working together to develop and implement a licensed price control regime for electricity transmission networks offshore. Following a consultation on the approach to licensing, the Government has announced that the licensing of offshore electricity transmission will be a competitive activity. This announcement forms part of an on going process in the implementation of sections of the Energy Act 2004 connected with creating a regulatory regime for electricity transmission networks offshore.

This document builds on Ofgem's first offshore transmission scoping document published in April 2006. It sets out initial thoughts on our policy proposals and provides a detailed framework for the implementation work that needs to be undertaken.

Contact name and details: Giles Stevens, Head of Offshore Electricity Transmission

Tel: 020 7901 7082

Email: giles.stevens@ofgem.gov.uk

Team: Transmission

Context

This document forms part of Ofgem's work on developing the regulation of offshore electricity networks. It follows on from the Government's decision in March 2007 to adopt the non-exclusive approach of a common tender for licensing offshore electricity transmission.

Offshore networks are important as they will transfer electricity from offshore renewable generating stations (such as wind farms and potentially other technologies that harness wave and tidal resources) to the onshore network.

Associated Documents

- Government Response to the joint DTI/Ofgem Consultation on Licensing Offshore Electricity Transmission (DTI Ref: 07/634)
- Updated Regulatory Impact Assessment (DTI Ref: 07/633)
- Licensing offshore electricity transmission – a joint Ofgem/DTI consultation (Ofgem Ref: 199/06)
- A security standard for offshore transmission networks – an initial joint DTI/Ofgem consultation (Ofgem Ref: 211/06)
- Offshore electricity transmission – scoping document

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Summary

The development of renewable energy generation offshore has the potential to make a major contribution to the UK's renewable energy targets over the coming years. Ofgem and the DTI have been working together to develop the necessary regulatory framework for delivery of offshore electricity generation to the onshore electricity grid through new offshore transmission cables.

A key stage in the development of this regulatory framework for offshore transmission has now been reached with the Government decision on 29 March 2007 that offshore electricity transmission licences should be non-exclusive. This will now allow the detailed design of the regulatory regime to move forward.

This scoping document outlines our initial thoughts in a number of policy areas, setting out the approaches we are currently considering, in order to help the development of this new regime. Some of the highlights are:

- the connection application process - we are considering a parallel approach to connection applications, in which the Great Britain System Operator (GBSO) provides preliminary connection information to an offshore generator while an Offshore Transmission Owner (OFTO) is being appointed via a tender process. In the event of connection via distribution networks, we propose contractual arrangements between the GBSO and the OFTO and between the GBSO and the Distribution Network Owner (DNO) for connection to, and use of, the distribution system.

- the OFTO competitive tender process - we are considering an approach whereby, once an offshore generator requests an onshore offer from the GBSO, a common tender process is triggered to invite prospective OFTOs to submit bids to provide the offshore connections. A winning bid is then identified.

- the design of the regulatory regime - we are considering a competitive tender model in which prospective OFTOs bid firm revenue streams for provision of specific assets and to meet specified performance criteria. We are also considering allowing the price control to extend to the lifetime of the assets and not undertaking regular price control reviews, as is the case onshore.

- interim arrangements for assets that have begun to be built, or are indeed built, before the regulatory regime comes into place - we are proposing several pre-conditions that would need to be met to qualify for adoption and also propose a tender process for the subsequent adoption of these offshore transmission assets.

- charging, access and compensation issues - we consider that the existing onshore arrangements for access and charging should be extended offshore where practicable. Due to the lower security standards expected for offshore transmission, we do not anticipate that compensation (from the GBSO) will be applicable.

Finally, we have also outlined where we believe changes are required in industry licenses, codes and standards in order to implement the new regime. We propose to

take the work described in this document forward under a number of work streams over the coming months, engaging with key stakeholders and industry groups.

1. Introduction

Chapter Summary

This chapter summarises the policy objectives for the development of a licensed regulatory regime for electricity transmission networks offshore.

Purpose of this document

1.1. Following the Government's decision in March 2006 for a licensed price control approach to regulation of offshore electricity transmission, we published our first scoping document in April 2006. This document was the initial stage in the process of developing and implementing a licensed price control regime for electricity transmission networks offshore. It outlined 5 main areas of work to take forward the Government's high-level decision to regulate offshore transmission by means of licensed price control. These areas were:

1. the geographical scope of offshore transmission licences;
2. the allocation of offshore transmission licences;
3. the technical rules for offshore transmission;
4. the design of offshore transmission price controls; and
5. likely changes to electricity licences and industry codes.

1.2. On 29 March 2007, the Government reiterated its intention to introduce a competitive process for the award of the right to provide transmission owner services offshore and announced its decision that the model for OFTO licences should be non-exclusive. This announcement has addressed the first two areas of geographical scope and allocation method. The Government is also expected to shortly issue a decision in respect of the appropriate basis for the security standard for offshore transmission networks, thereby addressing a key element relating to the third area of technical rules.

1.3. The primary aim of this second scoping document is to focus on the remaining two areas of regime design and the implementation changes, while also updating issues raised in our first scoping document. It identifies key policy questions to be answered, outlines our initial thoughts on the proposed approaches and provides a detailed framework for the work that needs to be undertaken.

1.4. This document forms part of an on going process by the Government and Ofgem to establish the necessary regulatory framework connected with implementing a licensed price control regime for electricity transmission networks offshore. This document is not in itself a consultation, but we welcome feedback on our initial thoughts. Responses may be sent by e-mail to Giles Stevens (giles.stevens@ofgem.gov.uk) by 30 April, 2007. DTI and Ofgem will jointly consult on key decisions and draft legal texts later in the year.

Overview of policy objectives

1.5. Our aim is to design a framework that will allow offshore transmission networks to be built in an economic, efficient and co-ordinated manner so that they will enable generators located in offshore waters to deliver their generation to the onshore electricity grid, whilst maintaining the integrity of the system as a whole, at the best value to network users and consumers.

1.6. In addressing this aim, we have developed a policy framework based around three key policy principles. These are:

- designing a competitive tender process that will efficiently, fairly and transparently lead to the appointment of Offshore Transmission Owners (OFTOs) so that they will deliver offshore networks that meet the needs of generators at the least cost to consumers;
- designing connection application and charging processes, transmission capacity access products and charging methodologies that will both deliver generators an offshore transmission connection offer and allow them, in competing for access to the onshore part of the transmission network, to be in no more or less advantageous a position than a proximate onshore generator, while maximising opportunities for coordination in offshore networks; and
- designing an offshore licensed regulatory regime that can provide an appropriate balance of risk and certainty and ensure ongoing regulation remains as light touch as possible.

2. Overview of the competitive transmission process

Chapter Summary

This chapter sets out an overview of a competitive transmission process and describes the interaction between three key elements associated with delivering competitive offshore transmission; the offshore generator connection process, the tender process, and the remaining steps before construction can commence. This chapter also contains a high level discussion of the costs and co-ordination issues associated with the above processes.

Key elements

2.1. At a high level, a competitive offshore transmission process will need to accommodate three key elements:

- the applications from offshore generators for connection to, and use of, the onshore electricity grid;
- the appointment and entry of new OFTOs to provide the network infrastructure between the generator and the point of connection on the onshore electricity grid; and
- ensuring that the costs of constructing and operating these new offshore transmission assets are economic and efficient for the purposes of determining a regulated revenue allowance in an offshore regulatory regime.

2.2. It should be noted that an overriding aim when designing the process will be to ensure that the benefits expected from introducing effective competition are retained and not lost through entry barriers created by unnecessary detail, an inappropriate approach to risk and over complication.

2.3. The precise detail of how this process will deliver competitive offshore transmission networks will be determined in the forthcoming months through consultation and engagement with industry. However, we have set out below our initial thoughts on the more significant steps in the process.

Delivering competition in offshore transmission

Offshore generator connection process

2.4. As is the case onshore, before an offshore generator submits a formal transmission connection application, it could initiate a confidential discussion with the Great Britain System Operator (GBSO)[1] to discuss its plans. This could trigger a preliminary desktop exercise by the GBSO to provide high-level advice to the generator concerning the general feasibility of the proposed application and a guide as to the reasonable costs that may be incurred in processing the application.[2]

2.5. As is the case onshore, a formal transmission connection process could then be initiated by an offshore generator submitting a 'competent' application, including the relevant application fee, to the GBSO requesting an offer for connection to and use of the onshore electricity grid. This application could also trigger a competitive tendering process in parallel to identify an OFTO to build and own the offshore transmission network.

2.6. The connection offer process for the offshore generator could then proceed to the same three month timescale as it does currently onshore, but with the GBSO providing a high-level, indicative offer to the applicant. This indicative offer could be developed (as certain onshore offers already are) through iterative discussions between the generator and the relevant onshore network owners.

2.7. The indicative offer could set out the requirements on the generator and the ongoing financial commitment required. If the generator wished the GBSO to proceed with further works on the basis of the indicative offer, it is likely that the GBSO would require the applicant to provide security against the risk and cost of proceeding with abortive works associated with developing the connection design.

Tender process

2.8. As set out above, the receipt of a 'competent' connection application requiring an offshore transmission connection could also initiate an independent (of the GBSO) competitive tendering process to identify an OFTO to build and own the offshore transmission network. As such, this could trigger an invitation to interested OFTOs to commence the development of tender proposals to provide the transmission infrastructure required to meet the specific offshore generator requirements. The prospective OFTOs would be expected to provide an appropriate financial commitment at the start of the tender process.

[1] National Grid Electricity Transmission (NGET) is designated as both onshore and offshore SO.
[2] Note that any substantive work the SO may do on behalf of the potential applicant is charged out at the rates specified in the Charging Statement published by NGET.

2.9. If it was deemed valuable for common feasibility analysis work to be performed for the prospective OFTO's, then this could be commissioned from this point onwards, subject to appropriate procurement and cost recovery mechanisms being established. In addition, once it was complete, any indicative offshore design developed by the GBSO or other parties, and the indicative onshore connection offer, could be provided to all prospective OFTOs participating in the tender process.

2.10. Ultimately, an assessment of each bid would need to be carried out (independently of the GBSO) and a winner determined. An iterative bidding process, similar to Public Finance Initiatives (PFI), would be expected to narrow an initial wide field of bidders down to one or more preferred bidder(s), culminating in the preparation of fuller, more detailed proposals and a firm and final offer from the preferred bidder.

Concluding the process

2.11. After selection, the preferred bidder would be expected to undertake a final detailed design, obtain any outstanding pre-construction consents, carry out any other agreed pre-construction work, finalise contractual and financing arrangements, and submit final information to the GBSO. There may also be changes to the works required on the affected onshore licensees' systems that needs to be taken into account (for example, to line up with revised timescales of the offshore connection). These changes would need to be taken forward in collaboration with the relevant onshore TOs, DNOs and the offshore generator to ensure the most efficient overall solution is achieved.

2.12. The GBSO would be expected to coordinate this information in accordance with its transmission licence and System Operator - Transmission Owner Code (STC) obligations, aligning the onshore and offshore elements of the connection, and provide a firm offer to the generator of the necessary works to proceed with the application. There may be an iterative discussion on the information between the relevant transmission owners, the OFTO, and the generator.

2.13. If the generator wished to proceed on the basis of the firm and final offer it may be contractually obliged to secure the cost of any of the works[3] being carried out to facilitate the connection. This security (currently known as Final Sums) is necessary in order to guard against the risk of TOs proceeding with abortive works associated with the connection offer, and would need to be reflective of the costs being incurred by onshore TOs as well as the OFTO.

2.14. Once approved by the Authority, the successful OFTO would be granted the right to receive a revenue stream based on the commitments set out in its final offer.

[3] Depending on the nature of a connection the types of works requiring security will differ. However in general users are asked to secure the cost of the following works; Connection Asset Works, One-Off Works, Wider System Reinforcement Works and Sole User Works.

On the basis of this approval, the OFTO could receive a stream of regulated income over the lifetime of the asset (which could potentially reflect the lifetime of the generation asset which it serves).

2.15. Construction would commence subject the conclusion of satisfactory interface arrangements between the GBSO, OFTO and the generator, and subject to the agreement of the Authority. Key pre-conditions that are expected to have to be met before construction can begin include:

- The offshore generator commits to the firm and final connection offer from the GBSO;
- The successful OFTO commits to meet agreed requirements for the delivery and performance of the transmission network; and
- The Authority agrees the price control revenue allowance for the OFTO.

2.16. We would expect that an offshore generator would pay annual charges to the GBSO (transmission use of system charges and balancing services use of system charges). The GBSO would in turn pay the OFTO the appropriately determined annual revenue allowance as set by the outcome of the tender process.

Co-ordination

2.17. An important consideration in designing the regime is to ensure that the process can encourage and facilitate co-ordinated builds where this is the most economically efficient option.

2.18. Co-ordination windows to receive generator connection applications and trigger competitive bidding processes, probably on an annual basis, could ensure that, wherever possible, opportunities are sought to realise efficiencies from combining offshore transmission infrastructure design or procurement across different generation projects. Under this approach, it is anticipated that design information could be made available at the same time to demonstrate where this might be feasible, and the competitive tender process should provide the appropriate commercial incentive to seek efficiency savings.

2.19. The proposed regime may also provide a natural incentive for an OFTO to build additional capacity at its own risk for potential future tendering rounds if it believes that this capacity is likely to be demanded at some stage in the future. For example, the winning bidder of a tender may choose to build in additional capacity in their design to allow speculative future offshore generation to connect because their marginal costs of providing this extra capacity are likely to be significantly lower than the stand-alone cost of providing the capacity at some stage in the future.

2.20. Such measures to encourage co-ordination will be in addition to legislative and licence requirements which also have this effect. For example, OFTOs would be

expected to be obliged to comply with third party access requirements through licence conditions.

Cost of the tender management process

2.21. Running the competitive tender process as set out above is expected to involve some additional costs on the part of Ofgem and other parties involved in tender assessment, for which no funding mechanism currently exists. In designing the process we will seek to ensure that the costs are minimised. Nonetheless, it will be necessary to ensure that these costs are funded, and it may be appropriate that the costs of this process are recovered from the winning OFTO. We will consider options for an appropriate funding mechanism early on in the design process.

Way forward

2.22. Our initial thoughts for developing a competitive transmission process are set out in more detail in the next chapters. This process will necessarily need to be developed in tandem with the GBSO and industry, taking account of decisions on the appropriate offshore regulatory approach and potential changes to onshore arrangements.

3. Connection application process

Chapter Summary

This chapter sets out an overview of our preferred approach for the connection application process to accommodate connection requests from offshore generators and sets out the high level issues associated with adapting the existing onshore transmission connection process.

Issue

3.1. In its current role as onshore GBSO, NGET has an obligation to make offers to parties that request a connection and use of system agreement. NGET is required by the Connection and Use of System Code (CUSC) to provide an offer for connection to, and use of, the transmission system to users within a three month period. It is important to question whether this framework can comfortably accommodate requests for connection/use of system from offshore generators and, if not, how this process can be developed to acknowledge the constraints faced by the GBSO and offshore generators.

Key policy questions that will be addressed

- Is the existing connection application process fit for purpose for offshore generators and how does it need to evolve?
- Does it need to change to accommodate the tender process for an OFTO, and what are these changes?
- How can changes to this process be clearly expressed through the appropriate industry documents and codes?

Proposed approach

3.2. The main difference between the proposed offshore and existing onshore connection offer arrangements is expected to result from the need for a new TO to be selected and appointed. Given that the GBSO would need to liaise with this party to produce a firm offer for connection and use of the transmission system, it is unlikely that, given the need for a thorough tender process, such an offer would be able to be produced within the current three month period for the offshore connection.

3.3. In addition, the specific characteristics of offshore transmission networks, such as the potential requirement for pre-works and sub-sea survey (which can only be carried out within limited periods of the year) may further extend the time taken to generate a final offer to an offshore generator.

Adapting existing practice

3.4. As in other areas, we consider that the arrangements which exist today should form the basis of any approach proposed offshore and that changes should, as far as practicable, be minimised. We note that requests by generators to the GBSO for connections to the transmission network in remote areas, such as the Scottish Islands, have been accommodated within the existing framework. Nevertheless, we consider that aspects of the proposed regime for offshore transmission may require amendments to be made to the transmission connection application processes.

3.5. In the case of remote onshore connections, such as the Scottish Islands, a staged approach to connection applications has been adopted, resulting in the preparation of an initial indicative connection offer. We consider that this may provide a model which could be adapted to apply to offshore transmission.

Initial indicative connection offers

3.6. Were this approach to be applied, a request to the GBSO for connection to the onshore electricity grid by an offshore generator could trigger a very preliminary definition of requirements by the GBSO. This could establish the basic technical data associated with the application, such as likely onshore transmission or distribution connection site, in order to identify the relevant 'host' onshore network owner(s).

3.7. If a transmission connection was identified, the ‘host’ transmission network owner would then be responsible for producing a high level indicative design for the onshore connection application. This design and cost assessment would be expected to include an assumed cable route and substation location(s) as well as the number of cables required. This information, along with a high level assessment of any necessary contingent transmission reinforcement works onshore, would then be provided to the GBSO under the terms of the STC.

3.8. If a distribution connection was identified by the GBSO, then it is proposed that equivalent information relating to a distribution network connection could be exchanged between the ‘host’ DNO and GBSO through a bilateral agreement. Further details concerning the treatment of distribution network connections are discussed in the next chapter.

3.9. Upon receipt of cost assessments and designs from the relevant TO or DNO, the GBSO would coordinate this information with its own high level system operation assessment and provide an initial indicative connection offer to the offshore generator based on the high level offshore connection design estimate to the expected connection point.

3.10. As cost estimates at this stage are likely to be highly uncertain, it is possible that the GBSO could also be expected to identify the need for further offshore work to be done in order to get to the point where the generator could make a meaningful decision on whether to proceed. These works, which might, for example, involve sub-sea surveys, are currently termed Advanced Services Work (ASW). If the

generator wished to proceed further on the basis of the indicative offer, it would be required to provide security against the cost of the ASW. It would be important to identify who will be responsible for carrying out the ASW and how it would be funded.

3.11. While this indicative onshore offer to the offshore generator was being developed and any ASW was identified, a tender process could be underway in parallel to select the preferred OFTO bidder. Once an indicative offer had been completed by the GBSO, it could be provided to the prospective OFTOs participating in the tender process, as well as the generator, which would inform its decision as to whether to proceed with the connection. Were it to do so, it would sign the indicative offer and become liable for securities as set out in the relevant industry codes.

Final connection offer

3.12. Once selected and committed, the preferred OFTO would initiate the detailed design studies on submarine cable route, landing point etc. in collaboration with relevant onshore licensees to ensure the most efficient overall solution. The results of this survey work and reinforcement assessment would be submitted to the GBSO by each relevant licensee. The GBSO would coordinate these revised offers and incorporate any works it deemed necessary from a system operation perspective into a final connection offer. It would then send it to the offshore generator for agreement and sign-off.

3.13. These generator connection processes will need to be developed in conjunction with the GBSO and industry in light of decisions on the appropriate regulatory approach and potential changes in onshore arrangements. We recognise that it may be necessary to consider amendments to industry codes to ensure that this approach is fully and transparently documented.

3.14. A key issue will be to ensure that, if as a result of running an OFTO tender process, and using annual co-ordination windows, there is a delay in making a final connection offer on which user commitment will be based and this delays the commencement of more detailed survey works, then offshore generators are fully informed and aware, such that they can plan and manage their projects around these processes.

4. Connection via distribution networks

Chapter Summary

This chapter sets out an overview of the issues associated with an offshore generator seeking a connection to the onshore distribution network and describes our preferred approach to developing new arrangements to cater for this "new" interface.

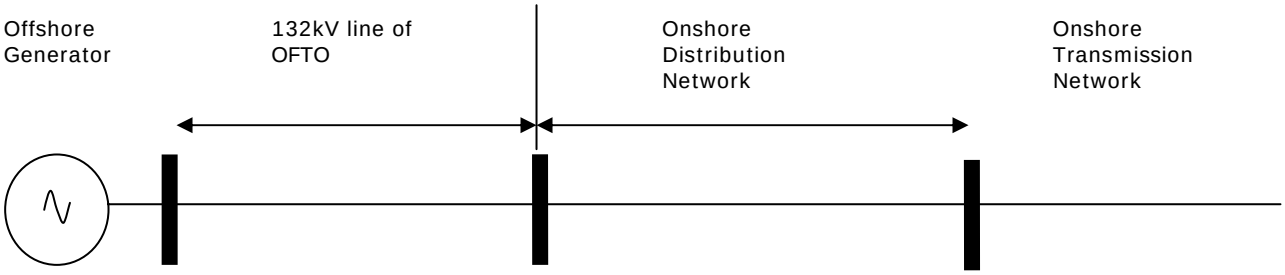
Issue

4.1. We are aware that the proposed connection arrangements for the majority of the Round 2 (R2) projects consist of offshore 132kV cable circuits connecting to an onshore distribution system.[4]

4.2. An offshore transmission system operating at 132kV may connect: (i) directly to the existing onshore GB transmission system; or (ii) to an onshore distribution system. The type of connection will depend on the location and available capacity of access points to the existing onshore systems.

4.3. There are direct equivalents to connection type (i) under the current onshore arrangements.

4.4. We do not consider that there is a direct equivalent to connection type (ii) within the current onshore arrangements. Connection type (ii) will create a "new" interface (illustrated as Y below) between an offshore transmission licensee (offshore TO) and an onshore distribution licensee (DNO). There is a need to develop new arrangements that will need to cater for this "new" interface.



Interface Y

4.5. Our general approach to date in the development of offshore policy is that unless significant information emerges, onshore arrangements should apply offshore unless different treatment is justified. Although there is no direct equivalent to

[4] Such cables will be considered to be "high voltage lines" once section 180 of the Energy Act is commenced. The distribution system in England and Wales is defined at 132kV and below.

connection type (ii) in the current onshore arrangements, we consider that it is preferable to develop relatively simple arrangements for Interface Y which are based on the broad principles which underpin the onshore arrangements.

4.6. Our preference is for offshore generators to contract directly with the GBSO for connection to and/or use of the transmission system (the same way as transmission connected generators onshore) irrespective of the type of transmission connection.

Key policy questions that will be addressed

- How should the GBSO interface with the DNO when developing and contracting for works associated with an offshore connection application connecting to an onshore distribution network?
- How should this process be developed such that it allows an offer to be made in a timely manner?
- How do we ensure that this process is clearly and transparently communicated through the appropriate industry documents and codes?
- Is it necessary to develop the existing contractual interfaces or develop new interfaces to ensure appropriate information exchange and participation in the connection process?

Proposed approach

4.7. We consider that there is a need to define arrangements at Interface Y which provide for contractual relationships between the GBSO and DNO for connection to and use of the distribution system. These arrangements will need to cover both commercial and technical matters.

4.8. We consider that the simplest basis for the new arrangements would be for the GBSO to:

- apply to the DNO for connection to and use of the distribution system defining requirements of the connection (e.g. level of security);
- contract with the DNO if the offshore generator accepts the associated transmission connection agreement (initiated from an offshore generator submitting a connection application to the GBSO); and
- require the OFTO to enter into agreements with the DNO in respect of site specific safety requirements.

4.9. Our current view is that a simple solution could be one where the GBSO is required to pay in full for any works it requires the DNO to undertake on its network.

These costs could be funded by the OFTO and recovered through the ongoing payments from the GBSO to the OFTO.

4.10. We have reviewed alternative models at a preliminary industry workshop[5]. These are:

- the DNO having direct contractual agreements with the OFTO (similar to onshore arrangements where the DNO has direct contractual relationships with parties that are physically connected to its distribution system);
- the DNO assuming responsibility for the operation of the offshore transmission network; and
- the offshore generator contracting directly with an onshore DNO for use of the onshore distribution system, and the OFTO contracting with DNO for connection to the onshore distribution system.

4.11. We have given further consideration to these alternative options in the light of feedback from workshop participants. We do not consider that any of the alternative options should be progressed as each would introduce significant additional complexity.

4.12. We note that workshop participants were generally supportive of a model where the generator would have a single contractual interface with the GBSO irrespective of the nature of its transmission connection. Our preferred model for the arrangements for the new interface Y is for these arrangements to be defined as part of the transmission industry codes (CUSC/Grid Code) and/or in bilateral contracts between the GBSO and DNO[6]. We welcome views on the best route and any alternative options. We intend to approach industry to inform our decision as to how arrangements for the new interface Y should be implemented.

4.13. Future discussions with industry will assess the robustness of our preferred option in a number of different timescales – planning (including connection application process), operational planning (including outage co-ordination and information exchange) and real time operation (including emergency arrangements and constraint management). In particular, we will need to ensure that the GBSO has appropriate incentives in negotiating with the DNO.

[5] An industry workshop was held at DTI's offices on 16 January 2007.
[6] Note that no compensation would be made payable by the DNO to the SO except as negotiated bilaterally (compensation for the generator would be a matter between the SO and the generator).

5. Design of tender process

Chapter Summary

This chapter sets out our initial thoughts on how the competitive tender rules and selection criteria will be established, who can participate in the process, who will run the process and how it can be run as efficiently as possible.

Issue

5.1. The Government has decided that the right to build and own offshore transmission assets will be allocated by means of a competitive process. The framework and rules for the process now need to be designed. This chapter sets out our initial thoughts on how the tender rules and selection criteria will be established, who can participate in the process, who will run the process, and how it can be run as efficiently as possible.

Key policy questions that will be addressed

- On what basis should the tender be run, and by whom?
- What should be the key stages of the tender process and how should the assessment and award be managed?
- How can the costs of the tendering process be minimised?
- Who will be allowed to own offshore transmission assets?

Proposed approach

Who should run the tender process?

5.2. A key question is who is responsible for overseeing the process. We and the Government believe it would be inappropriate for the GBSO to run this process, given that it is not fully independent and it might potentially have a conflict of interest if it was assessing the outcome of a tender process. As such, the assessment of bids will be achieved through a process independent of the GBSO, but which will allow the Authority to approve the regulatory regime for the winning OFTO.

5.3. The tender assessment process would be established by the Authority, and would be expected to commence once the GBSO is in receipt of a connection application for a transmission connection to an offshore generator. Prospective OFTOs would be required to participate in the tender process, including a requirement to provide a financial commitment. An independent assessment process would then assess the bids so as to allow a successful bid to be approved by the Authority. The GBSO's role would be to provide relevant information in relation to

the bidding process, but it would not have a role in selecting the successful tender, which would be determined by in independent manner. The final decision to approve the price control and to modify the transmission licence accordingly would be the responsibility of the Authority.

5.4. Given the role that the Authority will have in approving the award of regulatory revenue allowances to successful OFTO's, and the need to ensure that the tender assessment process must be independently run, we are currently considering what the appropriate role for Ofgem, or other independent parties that we might use for tender assessments, might be in this process, while recognising that no funding mechanism currently exists for recovering the costs of tender assessments.

Description of a potential tender process

5.5. An effective competition will require good quality information to be presented to bidders at an early stage such that they are able to accurately prepare their tenders with confidence about the key risks and rewards that are associated with it. Furthermore, good quality information will also be required to be submitted by bidders during the process so that the best bid can be accurately assessed and incentives designed so that successful bidder delivers in line with their bid.

5.6. In advance of any process, it would be necessary to establish transparent and thorough rules and criteria governing its operation. We are keen to develop an efficient tender process which minimises costs and delays to all participants. However, it will be important to factor in a sufficiently long period of time for interested parties to assess the terms of the tender and prepare bids. This time needs to strike a balance between allowing a thorough bid to be developed and not overly delaying projects.

5.7. It will be important to develop a rigorous and predictable model for tendering under the competitive approach, such that serious OFTO investors may be attracted, and consumers' interests can be protected. We have considered how the proven PFI or Public Private Partnership (PPP) models could be adapted in this regard and have identified a number of high level steps which are likely to be involved in the process of running the offshore tender process.

5.8. A high level example of how this could work and the possible key stages are discussed below:

- Stage 1 - Expressions of interest requested;
- Stage 2 - Tender criteria issued;
- Stage 3 - Invitation to Negotiate (ITN) issued to qualifying bidders;
- Stage 4 - Bids scrutinised, assessed and revised;
- Stage 5 - Preferred bidder(s) appointed;
- Stage 6 - Contract negotiations;
- Stage 7 - Award, subject to Authority approval on the price control; and
- Stage 8 - Offer referred to generator, if offer is signed then construction work starts.

5.9. At the very first stage, it would be important to confirm the scope and performance requirements of what will be tendered. Essentially, the tender would relate to the right to construct a transmission connection between an onshore connection point (onshore substation) and the offshore connection point (offshore substation). The process of initiating a tender process is expected to begin once a generator has requested a connection offer. It is likely they would specify the capacity required to be connected, supported by the required user commitment for their application. We are considering whether, and by how much, the criteria and the weighting of the criteria can be allowed to vary for each tender to reflect the priorities and preferences of generators.

5.10. Once an appropriate scope was established (and other requests for connection coordinated), prospective OFTOs would be invited to submit initial proposals for building and owning the transmission infrastructure included in the scope of the tender, complying with a set of tender criteria. It is anticipated that the field of bidders would then be reduced by issuing an Invitation to Negotiate to bidders that have satisfied the predefined tender criteria.

5.11. The remaining bidders would then be invited to submit firm proposals for assessment. These would be expected to include the necessary supporting evidence such as financial commitments, construction and operational commitments, together with sufficient financial and other data to allow a detailed comparative evaluation of the bids to be undertaken.

5.12. Bids would need to be carefully scrutinised and opportunities for them to be revised could be provided. Ultimately a winning bidder would need to be identified. The Authority would approve the revenues which would accrue to the winner and corresponding revenue allowances would be set out in the relevant conditions of the OFTO's licence.

5.13. There are several detailed policy questions to address within this proposed framework and significant development work in this area is proposed over the coming months.

Ensuring efficient tender costs

5.14. It is important that the design of the tender process seeks to reduce, where possible, potential inefficiencies in the costs of running this process and the costs the bidders face in preparing bids. We are considering the following initiatives:

- Windowing bidding rounds - it is important to ensure that the most efficient investments are made. We consider that seeking to co-ordinate connections, while avoiding unnecessary delays to projects, is desirable. One option could be to provide an annual window in which connection applications could be made. This would allow the terms of all these offers to be reflected in the scope of the tender process. It would mean that costs will be lower as opportunities to bid are condensed. They would also increase the likelihood of bids being put forward for

connecting a number of projects and enable economies of scale to be realised. It will also facilitate and encourage co-ordination of build.

- Refining the field of bidders on an iterative basis - we propose that the process of arriving at the preferred and winning bidder could narrow the initial field of bidders to, say, two or three preferred bidders. Bids would then be refined through negotiation and potentially a re-bidding stage. This should also allow companies' bidding costs to be significantly reduced as only the last few serious bidders will need to incur major bid costs.

- Provision of shared information to initial bidders - it may be the case that some analysis could be undertaken early in the tender process; for example, obtaining preliminary sea bed surveys. This work could be done centrally rather than by individual bidders and it could be provided to all potential bidders. This approach should encourage economy and efficiency and would help to lower the upfront costs for bidders. Where offshore developers have already done such work themselves, this information should be made available to all potential bidders. If no sea bed survey has been commissioned by the developer then this is a role that could potentially be undertaken by the GBSO or an independent party.

- Recovery of development costs required to complete the transaction - one option which will require further consideration by DTI and Ofgem is whether to allow the recovery of development costs in the final stage of the process (e.g. by a preferred bidder).

5.15. In addition to the above, it should be noted that the costs of bidding may be expected to come down once the process is established and familiar to participants. However this benefit may be lessened if the selection criteria and tender processes change significantly from round to round.

Ownership of offshore transmission assets

5.16. The November joint consultation raised the issue of who should be allowed to own offshore transmission assets and in particular, whether an offshore generator could provide and own its transmission connection to the onshore system. This would occur where the offshore generator is able to obtain an OFTO licence and then successfully tender for the transmission connection from its generating station to the onshore system.

5.17. We noted that the possibility of an offshore generator providing its own transmission connection to the onshore system is subject to relevant EU legislation and might therefore be affected by any future measures to require unbundling of transmission assets. However, at this stage no decision has been made by the European Commission on this issue. Pending any such decision we remain of the view that offshore ownership rules should be consistent with onshore. We would, however, expect a generator-owned OFTO to be subject to third party access requirements where relevant.

6. Design of regulatory regime

Chapter Summary

This chapter sets out our initial thoughts on the scope and design of the offshore regulatory regime that will deliver economic, efficient and fit for purpose transmission infrastructure expected from a competitive tender process.

Issue

6.1. The competitive tender process described in the previous chapter should result in the approval of a licence for an OFTO, requiring them to provide the transmission network capacity to connect specific offshore generators to the onshore electricity networks. We will be responsible for regulating the licensed companies including, amongst other things, the approval of OFTO licences, implementing an offshore transmission regulatory regime, and monitoring licence compliance of the TO on an ongoing basis. In this chapter we discuss what such a regime might look like.

6.2. Our aim is to ensure that the offshore regulatory regime delivers economic, efficient and fit for purpose transmission infrastructure. Because of the efficiency benefits expected from a competitive tender process for delivery of specific assets, we expect the offshore regulatory regime to differ significantly from the onshore transmission regime, where five yearly price control reviews are used to identify and incentivise efficiency improvements. We do not consider that the traditional form of onshore price control is appropriate given that a tender process is used to award licences. In practice, the offshore regulatory regime is expected to have many more commercial features in common with a PFI or project financing model.

6.3. In designing an appropriate offshore regulatory regime under these competitive bidding arrangements, we will seek to ensure that network users and consumers obtain certainty that the OFTO meets its responsibilities; namely financing, building, owning, and maintaining its transmission assets and, in particular, meeting the requirements of the generator(s) that it connects. In turn, the OFTO will have certainty of payment for these services. In the event that we judge there has not been an effective competition, for example because only one bid has been received, we will want to consider whether the approach described remains fit for purpose.

Key policy questions that will be addressed

6.4. Key questions that will need to be addressed in relation to the development of an offshore regulatory regime include:

- What are the key obligations and risks that should be managed by an OFTO?
- How should the specific transmission requirements, including performance measures, be determined and incentivised?

- How should the regime deal with uncertainties?
- What should be the duration of any offshore regulatory regime?
- How should the "correct" regulatory regime be determined in each case?

Proposed approach

6.5. Our initial thoughts on the design of an offshore transmission regulatory regime are set out below, recognising that this regime is primarily at present required to provide a funding and regulatory oversight mechanism for the construction and operation of largely radial offshore transmission connections (with some limited scope for shared connections). The connections would serve either single or small clusters of generators and would not provide for demand customers. It should be noted that in the future connection designs may move away from point to point connections to, for example, trunk and branch configurations and the regime would need to take account of these potential developments.

6.6. There are a number of key issues to be considered in designing an offshore transmission regulatory regime, such that the granting of a licence can satisfy us that the consequent revenue stream will be remunerating economic and efficient investment. The issues that are expected to be addressed by the licence (rather than other industry codes and standards) include:

- Revenues required by the OFTO and certainty of payment;
- Infrastructure required and certainty of delivery;
- Performance requirements and incentives;
- Predefined adjustment mechanisms;
- Business separation;
- Business failure and special administration; and
- Disputes and arbitration.

Revenues and certainty of payment

6.7. We propose that the prospective OFTOs should bid a firm revenue stream for the term of the licence or the life of the assets, and that this will then become the agreed revenue stream to be paid to the successful OFTO by the GBSO. This certainty of payment is equivalent to the principle applied in the onshore transmission price control arrangements. (The GBSO will be allowed to recover equivalent amounts through its transmission charges).

6.8. Unlike the onshore price control regime, we would not expect to undertake regular price control reviews. As such, we would not periodically calculate specific targets for allowances such as capital expenditure, operating expenditure, tax, depreciation, and cost of capital. These assumptions would be a matter for the OFTO to take into account in developing and submitting its bid, offering an opportunity for innovative approaches in the design of its overall bid package.

Transmission requirements and certainty of delivery

6.9. It will be important that clearly defined transmission requirements form part of the tender specification against which potential OFTOs would bid. This specification would take account of the requirements of users (typically generators) and the relevant industry codes and standards. In order to optimise the scope for design innovation, the terms under which OFTOs bid may potentially be based on a high level functional specification, such as the example summarised below:

- a requirement to install and operate a transmission network with a defined power transmission capacity which connects defined generators(s) to the existing onshore transmission or distribution network, and being fully operational by a specified date;

- a requirement to include all assets necessary for connection, operation and integration across the boundary interfaces of the network, and to be compatible with these systems;

- a requirement to provide design solutions that would meet certain predefined technical performance requirements in order to provide certainty of delivery, for example:
    - a minimum designated service life (e.g. 25 years) in the prevailing physical and electrical conditions;
    - a minimum annual availability (e.g. 97 per cent);
    - a maximum number of unplanned power transfer interruptions (e.g. 3 events per annum); and
    - a maximum number of major cable failures (e.g. once every 10 years) with a maximum return to service time (e.g. within 2 months).

6.10. In order to provide certainty that the OFTO will be able to deliver the transmission requirements for the term of the licence, the prospective OFTOs would be expected to provide evidence that they have binding commitments in place to finance, construct, own, and maintain the required infrastructure during the latter stages of the bidding process, but certainly before we finally approve the licence. This evidence might be expected to include supporting material such as detailed designs and plans, cost and asset breakdowns, financial models and financing commitments, construction contracts, and operational contracts.

Performance requirements and incentives

6.11. Given that we do not propose a process of regularly reviewing the offshore TO price control, it will be important to ensure that there is a clear definition of output requirements specified at the outset that can be both measured and incentivised. Symmetrical bonus or penalty incentives might be expected to be included with appropriate scaling factors and caps around the following measures:

- a target delivery date for full operational capacity (perhaps preceded by a target commissioning date);

- firm or short-term capacity targets;
- target(s) for network losses; and
- targets for technical performance factors such as availability and reliability as described above.

Predefined adjustment mechanisms

6.12. Under our proposed approach OFTOs and consumers are effectively signing up to a regulatory regime that may be in place for a significant period of time e.g. 25 years. If the regime is too rigid the generator and consumers may pay a higher price initially as OFTOs build risk premiums into their bids, but would not face any risk of higher costs later, whereas if it is too flexible the generator and consumers may pay a lower price initially as OFTOs bid against little risk, but may face a higher price later as the OFTO exploits the regime's flexibility without a regulatory review.

6.13. In order to explore this issue and identify potential benefits to consumers, we propose to consider the benefits of including a limited number of predefined change mechanisms that could be triggered by specific events during the licence term. Such automatic adjustments may be incentivised through the use of sharing factors and caps. For example, they might include revenue adjustments resulting from:

- Sharing of refinancing savings post construction; and

- limited cost increases or decreases against a target length of transmission connection cable (or length of underground cabling) to take account of any unforeseen variations in construction requirements after the firm and final bid.

6.14. Furthermore we recognise that up to a certain limited cost threshold it might be the most economic and efficient solution for the licensed OFTO to undertake the development of incremental capacity. However, beyond this threshold, it is likely to be beneficial to trigger a new tender process for extra capacity so as to achieve the most economic and efficient solution.

Disputes and arbitration

6.15. In the absence of regular regulatory reviews which may make changes to licenses to reflect changes in circumstances, entirely unforeseen events may emerge that under normal contractual structures would be dealt with under dispute or arbitration processes. It is likely that equivalent arrangements may need to be introduced for OFTOs.

Business separation

6.16. Each licensed OFTO will be required to demonstrate that it is not gaining an unfair competitive advantage by providing a cross-subsidy across its businesses, that it is operating independently of other licensed businesses and that it also has appropriate measures in place to meet financial separation requirements.

Business failure and administration

6.17. In the event that an OFTO business should fail or cease to hold its licence, then special administration arrangements should come into force such that the offshore assets may continue operating pending a durable resolution.

6.18. However, we note that the creation of special administration arrangements will need to conform to the existing legislative arrangements or be amended to exclude it from the scope of these provisions. Key issues to be addressed in this context will include whether we should require the OFTO to be established as a separate legal entity such that special administration can be applied to it straightforwardly, and whether the Administrator should have the discretion to determine how to select a successor licensee.

Other factors

6.19. As well as addressing other commercial issues that would be expected to be pertinent to project financing models, the regulatory regime for OFTOs may also need to include some of the other obligations set out in existing onshore TO licenses, but these are expected to be limited to only those which are necessary for the new regime, and which are not already covered elsewhere.

7. Interim arrangements

Chapter Summary

This chapter sets out an overview of the key policy issues surrounding the treatment of offshore transmission assets where construction has commenced ahead of the new regulatory regime, including our proposed approach for determining a value for such assets.

Issue

7.1. A number of developers have indicated that they will have started to construct their own transmission assets before the introduction of the new regulatory regime. However, once the new regime is in place, any offshore transmission assets must be owned only by licensed OFTOs. Those constructed, or under construction, before the new regime is in place, referred to as the "transitional offshore transmission assets", will have to be "adopted" by licensed TOs, who would then draw regulated revenue largely based on the value of the asset determined at such adoption. The TOs will also take on relevant obligations for these assets, including compliances with technical rules. If more than one TO is interested in adopting such assets, a competitive bidding process will be used to select the adopter TO.

7.2. The key issues in relation to the transitional arrangements concern what assets should be classified as transitional and be given regulatory assurance over investment costs ahead of the new regime, selecting the adopting TO, determining the value of the transitional offshore transmission assets, and assessing compliance with technical rules.

Key policy questions that will be addressed

- What preconditions are required for offshore transmission assets to be constructed ahead of the introduction of the new regulatory regime and be allowed into the adoption process?
- What are the appropriate criteria for selecting adopters for transitional offshore transmission assets?
- How should the value of transitional offshore transmission assets be determined at adoption?
- What should be the treatment of any non-compliance of transitional projects against technical rules?
- What should be the regulatory treatment of un-adopted offshore transmission assets?

Proposed approach

Pre-conditions for transitional offshore transmission assets

7.3. In order to safeguard consumers from inefficient investment, some pre-conditions are required for a project to qualify as transitional offshore transmission assets. We propose that all the following pre-conditions need to be satisfied:

- projects that will be constructed or have secured full unconditional financial close (subject to the transmission investment being adopted) prior to the date after which enduring arrangements will apply; and
- the developer holds a generation licence; and
- relevant environmental and planning consents and onshore connection offers are in place; and
- user commitment is given from the generator; and
- there is formal financial commitment (or equivalent guarantee from an investment grade rated parent or funding party); and
- adoptees reveal full cost information and supporting documentation to enable an assessment of their bid.

7.4. There will be a number of projects that may meet these criteria and will therefore qualify as transitional offshore transmission assets and be eligible for adoption. However, parties in a position to develop such offshore transmission assets are also concerned that they will not be legally able to transmit electricity as they will not hold a transmission licence and will have a period to wait before a licensed party adopts their assets. This issue has been addressed by DTI in its main response to the consultation.

Selecting adopters

7.5. It is proposed that the tender process for adopting transitional offshore transmission assets is designed in a similar fashion as that for constructing new projects after the new regime is implemented. However, as the assets will already have been constructed, or potentially be under construction, with the asset cost to be separately determined, the competition is envisaged to be based on the overall charge for operation of the assets.

Determining an efficient cost for the assets

7.6. Developers have suggested that it is necessary to know the value that will be attributed to transmission assets that they construct themselves before the regime is in place and, in some cases, before the assets are commissioned.

7.7. Our proposed policy position is to guarantee a minimum level of transmission asset cost at 75 per cent of our ex-ante estimated cost assessment for qualifying assets. Any costs above this minimum guaranteed asset cost will be subject to ex-post efficiency review and only those deemed economic, efficient and fit for purpose will be confirmed as an efficient asset cost. This retains an incentive on the developer to keep costs low which will help achieve economic and efficient transmission development.

7.8. Once the successful adopter emerges from the bidding process, it is envisaged that the winning bidder will reimburse the developer of the adopted assets at our final view of the efficient asset cost.

Assessing compliance with technical rules

7.9. Under the new regulatory regime, the licensed TOs will be obliged to ensure that their offshore transmission assets comply with a set of technical rules, e.g. as set out in the GB SQSS. For the transitional offshore transmission assets, however, the design and construction are likely to have been carried out before such technical rules are finalised. For the adopter TOs to avoid licence breach, it is necessary for the technical compliance of the transitional offshore transmission assets to be assessed before formal adoption.

7.10. Any non-compliance must be identified to Ofgem at the earliest opportunity. The regulatory treatment would be to follow the precedents of treatment of non-compliances associated with existing assets e.g. at vesting and/or British Electricity Trading and Transmission Arrangements (BETTA). In broad terms, this includes an assessment of the impact of the non-compliance and the cost for remedying such non-compliance. The asset owner could request time to achieve compliance by asking Ofgem for a time limited derogation. If the cost of the remedying action is prohibitive or a remedy is not available, the asset owner may request a derogation on an enduring basis. Such derogations are likely to include conditions that the asset owner pays for any adverse impact on system or other users. Ofgem is only able to grant derogations to licensed parties and we will require the licensees to justify their derogation requests.

8. Charging, access and compensation

Chapter Summary

This chapter sets out an overview of the key policy issues and our preferred approach in the areas of transmission charging, transmission access and compensation.

Transmission Charging

Issue

8.1. NGET's Electricity Transmission Licence requires it to develop methodologies to calculate the charges that electricity generators, suppliers and large customers pay for connection to, and use of, the GB transmission system.[7]

8.2. The methodologies set out three types of charge which are levied on all users of the transmission system:

- connection charges based on the value of the assets needed for an individual user to connect at that site;
- Balancing Services Use of System (BSUoS) charges related to the cost of NGET balancing generation and demand and maintaining quality and security of supply in real time; and
- Transmission Network Use of System (TNUoS) charges related to the cost of providing the transmission network infrastructure.

8.3. On 2 August 2006, the Secretary of State issued a statement confirming that the current role of the GBSO, occupied onshore by NGET, will be extended offshore.[8]

8.4. As offshore GBSO designate, we consider NGET to be the most appropriate party to develop open and non-discriminatory charging methodologies that apply to the

[7] The transmission licence requires that NGET has the following three charging statements in place: the Statement of the Use of System Charging Methodology, the Statement of Use of System Charges which details the use of system charges, and the Connection Charging Methodology. Copies are available from NGET's website.

[8] See: http://www.dti.gov.uk/energy/sources/renewables/policy/offshore-transmission/offshore-%20transmission-gbso/page29208.html

connection to, and use of, the resultant GB transmission system and the proposed connection of generation in offshore waters to the onshore grid.[9]

Key policy questions that will be addressed

- Is it appropriate to apply the present onshore charging principles in the development of charging methodologies to incorporate offshore transmission connections and if so, what amendments are needed to extend existing arrangements offshore?
- What alternative arrangements should be considered?
- What detailed changes will be required to the charging methodology to apply it to offshore and what will be the consequential impact on the onshore charging methodology?

Proposed approach

8.5. We consider that the current licence driven approach used to develop onshore charging arrangements is an appropriate basis for developing offshore charging arrangements. We would expect the current GB Charging methodology to be used as the basis for development of offshore arrangements.

8.6. We would also expect that:

- the OFTO licence would oblige the OFTO to put in place a transmission charging methodology in relation to the services that they provided to NGET and charge in accordance with it.
- OFTOs would be expected to be obliged to comply with third party access requirements through licence conditions.

8.7. We recognise that there will have to be changes to the various contractual documents that underpin the way in which users are charged for using the transmission system. The key document in this respect is the Charging Methodology Statement with consequent process issues described within the CUSC. These changes will impact on what is proposed for the charging arrangements for offshore transmission. We will therefore be looking to NGET to incorporate developments in policy as they occur. However we see the primary objectives for offshore remaining as they are onshore, namely that the methodology:

[9] Via single 132kV cables. Such cables will be considered to be “high voltage” (i.e. transmission) once section 180 of the Energy Act is commenced. The distribution system in England and Wales is defined at 132kV and below.

- facilitates effective competition in the generation and supply of electricity;
- as far as reasonably practicable is cost reflective; and
- as far as reasonably practicable does properly takes account of the developments in transmission licensees' businesses.

8.8. The underlying rationale of the existing transmission charging arrangements is that efficient economic signals are provided to users when services are priced to reflect the incremental costs of supplying them. Therefore charges should reflect the impact that users of the transmission system at different locations would have on the TO's costs, if they were to increase or decrease their use of the respective systems.

8.9. In addition, we note that NGET has an ongoing obligation to keep its onshore charging arrangements under review at all times and to bring forward changes where they can better meet the relevant objectives. We propose that the development of offshore charging arrangements should not constrain the ongoing development of the onshore market such as arrangements for the connection of the Scottish Islands to the GB transmission system.

Transmission access

Issue

8.10. The primary access product currently available to generators is Transmission Entry Capacity (TEC). A generator owning TEC is allowed to export power to the transmission network up to the maximum level of its TEC at a specific location and is levied TNUoS charges based on its TEC.

8.11. It is important that the available access products reflect the needs of all users of the existing onshore system. The products available to offshore generators will need to reflect the expected usage of their connections. We consider that offshore generators may be expected to benefit from an access product similar to TEC.

Key policy questions that will be addressed

- Is it appropriate to apply the present onshore TEC access product to offshore transmission connections?
- If not, what alternative products should be considered?

Proposed approach

8.12. We foresee charges for offshore transmission connections being determined by similar types of TEC-based access products to those used onshore. These access products may be different to those used onshore in that they may be determined by security of access rather than the period for which it is available.

8.13. We note that an access product may need to take into account the possibility of periodic cable outages, reflect any changes to security standards and, potentially, include revised compensation arrangements. However, it is not clear that these products would only be of benefit to offshore generators.

8.14. The discussion on the range of access products onshore is ongoing. This has been driven by the significant demand for onshore connections from renewable generators. These demands have led to several proposals to amend the CUSC to introduce new access products. Further access products to reflect the growth in renewable generation connecting both directly and exporting onto the existing GB transmission system onshore have been discussed and will continue to be taken forward through appropriate governance forums.

8.15. We note that the existing industry governance processes allow any user to raise a proposal for change. Given that the benefits of any new access products may not be limited to onshore or offshore generators, we consider that changes should be progressed via industry parties developing and proposing amendments to the CUSC.

Compensation

Issue

8.16. An important feature of available access products is the compensation which is received if access is unavailable. At present, TEC is financially firm in that compensation is provided to the TEC owner for withdrawal of transmission access due to planned outages of or faults on transmission equipment. However, this compensation is not available where a generator opts for a less firm connection.

8.17. Due to the lower security standards expected for offshore transmission, we do not believe that compensation will be applicable.

Key policy question that will be addressed

- Is it appropriate to apply the present onshore compensation principles to offshore connections:
    - built to the minimum offshore security standard (i.e. lower than the security required by the onshore security standard)
    - built to level commensurate with full redundancy (i.e. a customer has requested a design variation).

Proposed approach

We consider that, as with charging, to the extent possible, the cost-reflectivity principles which apply to onshore access products should apply offshore. We do not propose to support arrangements that are misaligned with the level of infrastructure

provided. To do so could expose consumers to significant and unjustifiable additional costs. Therefore, we do not believe that compensation will be applicable for offshore generator connections built to the minimum offshore security standard.

9. Technical rules

Chapter Summary

This chapter sets out our proposed approach in incorporating the appropriate technical rules for offshore transmission into existing onshore arrangements.

Issue

9.1. Within the onshore codes and standards a number of technical rules relevant to the transmission system are defined. These are principally defined in the GB SQSS and the Grid Code. Developers have requested early clarity about the technical rules that should apply to offshore transmission networks and connectees to those offshore transmission networks.

Key policy questions that will be addressed

- How should the security requirements for offshore transmission networks be incorporated in the GB SQSS?
- Are onshore Grid Code (and associated STC) obligations appropriate to apply offshore and if not, what obligations are required?
- Are the onshore STC arrangements relating to Transmission Services and Operation (Section C) and Planning Co-ordination (Section D) appropriate to apply offshore and if not, what obligations are required?

Proposed approach

9.2. Two areas of work have been initiated as part of this work stream. Ofgem and DTI have been assisted by two industry subgroups in our review work.

9.3. The GB SQSS subgroup completed a review of the GB SQSS and submitted to DTI and Ofgem its recommendation for different security requirements to apply to offshore transmission networks. DTI and Ofgem published an initial consultation on 13 December 2006, inviting views on these recommendations. The DTI will publish its decision shortly on the security standard it considers appropriate for offshore transmission networks and generating stations connected to them.

9.4. Should the DTI's decision be that a different offshore standard is required, then it would be intended that drafting changes would be developed in conjunction with the three existing transmission licensees and consulted on in tandem with other licence, code and agreement modifications.

9.5. A Grid Code subgroup has been established to assist Ofgem and the DTI in their decisions relating to the Grid Code requirements for offshore electricity transmission.

The subgroup is reviewing existing obligations in the Grid Code (and will consider consequential STC obligations) to establish if they are appropriate to apply offshore. This subgroup has been asked to report the findings of its review, including any recommendations for different obligations offshore by May 2007.

9.6. Ofgem and DTI would plan to consult on any proposals to change the Grid Code or the STC as part of the wider consultation on licence, code and agreement modifications.

9.7. Ofgem and DTI consider that there is a need to review STC Sections C and D to assess if these would be appropriate for the interface between the SO and OFTOs. We plan to initiate this review work in April 2007 with the three transmission licences (who are joint owners of the document).

10. Implementation issues

Chapter Summary

This chapter contains an overview of the principal mechanisms which Ofgem and DTI intend to use to implement the policies outlined in previous chapters, to include modifications to licences, codes and agreements.

10.1. The principal mechanism which Ofgem and DTI intend to use to implement the policies outlined in previous chapters is modifications to licences, codes and agreements. It is anticipated that at least the majority of these modifications would be made by the Secretary of State using powers provided to him under ss. 90 & 91 of the Energy Act 2004 ('the 2004 Act'). The detailed implementation process and timetable is discussed below.

Industry codes

Issue

10.2. The 2004 Act provides the Secretary of State with discretionary powers to modify standard licence conditions and codes for purposes connected with offshore transmission, amongst other things. Codes and agreements will be reviewed and we currently anticipate that modifications are likely to be required to the following:

- Grid Code;
- Connection and Use of System Code (CUSC);
- System Operator-Transmission Owner Code (STC);
- Balancing and Settlement Code (BSC);
- Distribution Code; and
- Distribution Connection and Use of System Agreement (DCUSA).

10.3. Modifications may be also required to the GB Security and Quality of Supply Standard (GB SQSS), depending on the outcome of the Government's decision.

10.4. Ofgem and DTI will seek assistance from the relevant code owners and other industry participants as required to develop detailed modification proposals for the industry codes that are necessary to implement the offshore regulatory arrangements.

Proposed approach

10.5. We currently consider that the offshore arrangements can be developed by modifying the existing industry codes and we do not propose to introduce any new regulated codes. We note the importance of minimising consequential impacts on

the onshore arrangements and will consider this in our decisions relating to code change proposals required for offshore transmission.

10.6. We acknowledge that many policy decisions will need to be implemented via changes to the industry codes. We propose to identify the areas where changes to industry codes will be required in a document in July 2007.

10.7. We will co-ordinate the identification of necessary industry code changes by industry work stream discussions in the areas of technical rules, design of tender process, price control, embedded transmission arrangements, access compensation and charging, and connection application process in the period from July 2007. We also intend to co-ordinate the development of legal draft text in this period.

10.8. We intend to consult on specific text for modifications in January 2008, prior to a further 12 week consultation which the Secretary of State intends to undertake in June 2008 on the full regime, including on the modifications that he intends to make.

Licence modifications

Issue

10.9. The transmission licensing system will need to accommodate the entry to the market of new TOs offshore, hence we expect that modifications will be required to licence conditions. The standard conditions contain a substantial number of cross-references that may need to be updated. Standard conditions also cross refer to industry codes and there are likely to be modifications to these codes (see previous chapters). The licences will be reviewed condition by condition and the necessary modifications will be drafted by Ofgem and DTI in consultation with industry. The modifications will be made by the Secretary of State.

10.10. The special conditions of existing transmission licences and the licence conditions of other licences (supply, distribution, generation and interconnector) will also need to be scoped to identify any changes arising and whether they can be made by the Secretary of State by exercise of his 2004 Energy Act powers.

Proposed approach

10.11. We propose to undertake two rounds of consultation on draft licence modifications in July 2007 and January 2008 prior to a 12 week consultation which the Secretary of State intends to undertake in June 2008 on the full regime, including consultation on modifications he intends to make.

10.12. While Ofgem's current intention is to issue new licences for OFTOs, it is for further consideration as to how this will fit within the current structure of transmission licences. The standard transmission licence conditions comprise four sections:

- Section A (interpretation, application and payments);
- Section B (general);
- Section C (system operator standard conditions); and
- Section D (transmission owner standard conditions).

10.13. One way of making the modifications under the 2004 Act, although this is subject to further consideration, might be to insert a new Section E into the standard conditions of the transmission licence, which would replicate and then modify as appropriate the existing TO conditions of Section D. Section D would therefore become the "onshore" TO standard conditions and Section E the "offshore" TO standard conditions.

10.14. There are likely to be a significant number of modifications required to the standard conditions of the transmission licence to accommodate the extension of the GBSO role under section 91 of the 2004 Act. We will consider further whether these changes would be best accommodated within the existing sections A-C of the transmission licence or through another route.

10.15. It is possible that OFTOs may also be the owners of an adjoining, separately price-controlled transmission or distribution network to which the offshore transmission network connects. We propose that existing transmission licence holders should be required to apply for an additional licence specific to its offshore transmission activities. This would be to ensure offshore activities remain ring-fenced and financially and legally separated from onshore transmission and distribution activities. Such separation also avoids a party seeking an unfair competitive advantage in cases where it owns adjoining assets and was able to recover these revenue streams under the same licence.

Consultation on the full regime and go-live

10.16. The Secretary of State intends to undertake a 12 week consultation on the full regime before commencing his powers under the 2004 Act. The current aim would then be to subsequently make modifications to licence conditions, codes and agreements under sections 90 and 91 of the Energy Act 2004. Any modifications required to be made by Ofgem will also be made at this time under the Electricity Act 1989 modifications procedures. Once sections 90 & 91 have been commenced and all modifications made, the offshore regime will be "active". Once the Secretary of State has commenced sections 89 & 180 of the 2004 Act, the offshore regime will be 'live'.

10.17. Our proposed approach is set out in the next chapter which sets out our proposed key dates and an indicative timetable.

11. Work programme and next steps

Chapter Summary

This chapter sets out provisional milestones for the project and explains how we are working with external bodies to achieve these.

Next steps and timetable

11.1. We anticipate the earliest date for commencement of relevant sections of the Energy Act is October 2008. However, this is dependent on there being no significant change of scope or slippage in the timetable. Delays are likely to push the commencement date further into the future. Please note these dates are for indicative purposes only.

11.2. The key dates we envisage are as follows:

July 07	Publication of Policy direction document
	Publication of Initial draft of licenses
	Publication of Codes policy document
January 08	Publication of Second draft of licenses
	Publication of First draft of code modifications
June 08	Statutory consultation for licences begins
	Statutory consultation for codes begins
September 08	Consultations end
October 08	Go-live (subject to approval by Ministers and Authority)
	Energy Act 2004 sections commence

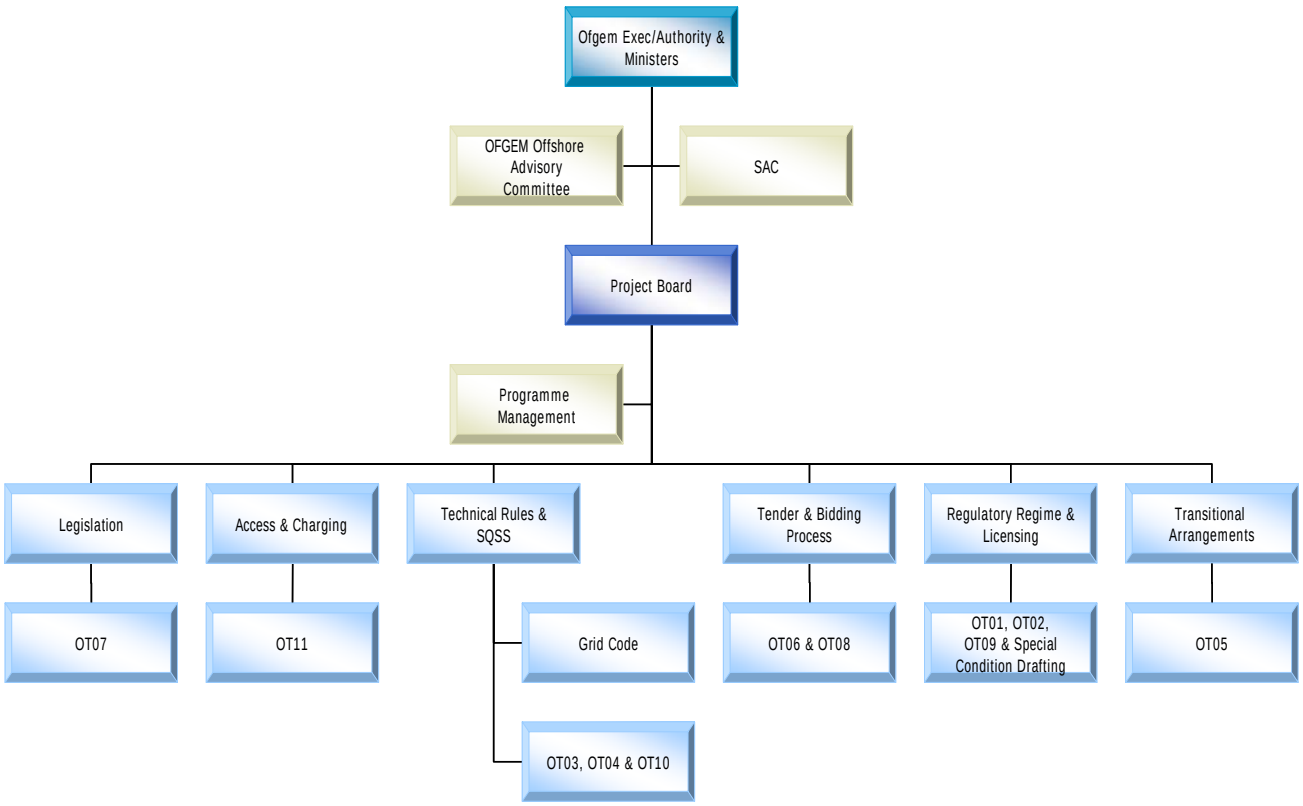
Our external engagement

11.3. We are committed to working as openly and as effectively as is possible with Government, industry and all other interested parties.

11.4. We continue to work closely with our Government partners at DTI. An Offshore Electricity Transmission Project Board was established in mid 2006 with representation from both Ofgem and DTI. This group meets monthly to discuss project progress, work stream status and potential risks and issues. A summary management report from this meeting is proposed to be placed on both the Ofgem and DTI websites within the Offshore Transmission pages during April, and will be updated monthly.

11.5. In addition, a joint Senior Advisory Committee (SAC) has also been convened with senior management from both Ofgem and DTI represented. This group provides a project assurance role for the Project Board.

11.6. We have structured the project by work stream, with the project organisation chart shown below. Further information on work stream membership and progress may be found on the Offshore Transmission pages of the Ofgem website.



Key:

OT01 – Form of licences
OT02 – Review of licence conditions
OT03 – Codes
OT04 – Technical rules
OT05 – Adoption
OT06 – Design of tender
OT07 – Statutory consultation & go-live
OT08 – Prequalification of licences
OT09 – Regulatory regime
OT10 – Development of embedded transmission
OT11 – Access, compensation & charging
OT12 – Connection application process

External communication sessions

11.7. Ofgem and DTI will host a number of external communication sessions for interested parties and key stakeholders throughout the course of the project. These forums are designed to inform, provide additional clarity to published documents and enable stakeholders to provide feedback to Ofgem. They are generally scheduled to coincide with a particular key milestone in the project, with the provisional dates for each external communications session as follows:

Session 1: 24 April 2007
Session 2: 23 July, 2007
Session 3: 14 January, 2008

11.8. Location, duration and agenda will be advised via Ofgem Communications or on the Offshore Transmission pages of the Ofgem website.

Appendices

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Appendix 1 – The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.[10]

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly[11].

1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of consumers, present and future, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- The need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- The need to secure that all reasonable demands for electricity are met;
- The need to secure that licence holders are able to finance the activities which are the subject of obligations on them[12]; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[13]

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

[10] entitled "Gas Supply" and "Electricity Supply" respectively.
[11] However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.
[12] under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.
[13] The Authority may have regard to other descriptions of consumers.

- Promote efficiency and economy on the part of those licensed[14] under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- Protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity;
- Contribute to the achievement of sustainable development; and
- Secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- The effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- The principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- Certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation[15] and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

[14] or persons authorised by exemptions to carry on any activity.
[15] Council Regulation (EC) 1/2003

Appendix 2 - Glossary

A

Authority

Gas and Electricity Markets Authority

ASW

Advanced Services Work

B

BSC

Balancing and Settlement Code

BETTA

British Electricity Transmission and Trading Arrrangements

BSUoS

Balancing Services Use of System

C

CUSC

Connection and Use of System Code

D

DTI

Department of Trade and Industry

DCUSA

Distribution Connection and Use of System Agreement

DNO

Distribution Network Operator

G

GW

Gigawatt

GBSO

Great Britain System Operator

N

NGET

National Grid Electricity Transmission plc

O

Ofgem

Office of Gas and Electricity Markets

OFTO

Offshore Transmission Owner

P

PFI

Private Finance Initiative

PPP

Public Private Partnership

R

RAV

Regulated Asset Value

RPI-X

Retail Price Index - X

R1

Round 1

R2

Round 2

S

SO

System Operator

SQSS

Security and Quality of Supply Standards

STC

System Operator - Transmission Owner Code

T

TEC

Transmission Entry Capacity

TnUoS

Transmission Network Use of System

TO

Transmission Owner

Appendix 3 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments.

1.2. Please send your comments to:

Andrew MacFaul
Consultation Co-ordinator
Ofgem
9 Millbank
London
SW1P 3GE
andrew.macfaul@ofgem.gov.uk