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DEPARTMENT FOR BUSINESS ENTERPRISE & REGULATORY REFORM

Offshore Electricity Transmission - A Joint Ofgem / BERR Policy Statement

Document type: **Consultation**

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

Overview:

Ofgem and BERR are working together to implement a regulatory regime for electricity transmission networks offshore. This document sets out our further thoughts for the design of a competitive offshore transmission regime. It follows on from the Government's statement on the licensing offshore electricity transmission and builds upon the initial thoughts set out in Ofgem's Second Scoping Document in March 2007.

This document is part of an on-going consultative process in the development of an offshore electricity transmission regime. The regime will be implemented by commencement of certain provisions of the Energy Act 2004.

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Context

This document forms part of the joint project of BERR and Ofgem to develop and implement a regulatory regime for offshore electricity transmission. It follows on from two documents published in March 2007; the Government decision to adopt a competitive approach for licensing offshore electricity transmission and Ofgem's second Scoping Document setting out initial thoughts on how a competitive framework for offshore electricity transmission might be implemented.

Offshore electricity transmission networks will be required to transfer electricity from principally offshore renewable generating stations to the onshore networks. Offshore renewables are expected to make an important contribution to the achievement of the Government's target to generate up to 20 per cent of Britain's energy from renewable resources. It is therefore important that 'fit for purpose' offshore networks are developed efficiently to ensure consumers and generators do not face unnecessarily high charges.

At present, there is very little electricity network infrastructure installed offshore. The Government and Ofgem consider that allowing companies to compete for the right to build this infrastructure should lead to the most economic and efficient solution for both consumers and generators. This document sets out our further thoughts on the design and implementation of a competitive regulatory regime for offshore electricity transmission.

Associated Documents

- Offshore electricity transmission - second scoping document (Ofgem ref: 58/07)
- Government response to the joint DTI/Ofgem consultation on licensing offshore electricity transmission (BERR ref: 07/634)
- Licensing offshore electricity transmission - a joint Ofgem/DTI consultation (Ofgem ref: 199/06 / BERR ref: 06/1952)
- Updated Regulatory Impact Assessment (BERR ref: 07/633)
- A security standard for offshore transmission networks - an initial joint DTI/Ofgem consultation (Ofgem Ref: 211/06)
- Offshore electricity transmission - scoping document (Ofgem Ref: 60/06)
- Regulation of offshore electricity transmission - a joint consultation by DTI/Ofgem (Ofgem Ref: 178/05)

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Summary

The development of renewable energy generation offshore has the potential to make a major contribution to the Government's renewable energy targets. In order to realise such generation developments, significant investment will be required in new offshore electricity transmission cables. Additionally a new licensing and regulatory regime covering the provision of these assets needs to be created.

It is currently envisaged that part of the new regime would commence in October 2008 (the 'go-active' date), so that preparatory steps required to amend licences, codes and agreements can take place and regulations can be made so that the process for awarding transmission licences can commence. This would be followed by the 'go-live' date in October 2009, by which time licences would be awarded and the new regime would 'go-live'.

This consultation document sets out our initial proposals for a licensing and regulatory regime that would apply to offshore electricity transmission networks. It presents an update from Ofgem's initial thoughts on the regime that were set out in its March 2007 Scoping Document. It has been informed by responses to the Scoping Document, as well as many collective and bilateral meetings with industry participants.

We outline our initial policy proposals in a number of areas, setting out the approaches that we are currently considering. We are seeking views on these proposals to inform our development of the new regime.

The key policy proposals are:

- **The design of the regulatory regime** – we propose that an Offshore Transmission Owner (OFTO) would have responsibility for designing, building, financing and maintaining the offshore transmission network required to connect an offshore generator. The OFTO would be selected by competitive tender and awarded an transmission licence which enables it to receive a regulated revenue stream in return for meeting its licence obligations for a predetermined regulatory period, and would be incentivised to achieve specified performance requirements during this period.

- **The OFTO tender process** – we propose a competitive tender process that would include an annual tender application window and which would start all the qualifying tenders simultaneously for coordination purposes. Bidders would not need to pre-licensed to operate in the offshore area before being entitled to bid (as was envisaged in the November 2006 consultation document). Instead, any person which can meet the prequalification criteria could tender for the right to design, build, finance and maintain an offshore generator connection, against pre-defined commercial arrangements. The tender process would be triggered by a generator connection application to the onshore network. Ofgem would make the key selection decisions and manage a tender process, which would result in the award of an offshore transmission licence to the winning OFTO.

- **Transitional arrangements** – we propose that transitional arrangements would apply to transmission connections where the offshore generator is already constructing or undertaking steps towards constructing the offshore transmission assets. This would apply where it could meet certain pre-conditions (which we summarise in Chapter 2 and set out more fully in Chapter 5) prior to the 'go-active' date or 'go-live' date.

We have also developed initial proposals in a number of other policy areas, where we have sought, as far as possible, to build on the regime that currently exists for onshore transmission connections and to extend these offshore. Some of the key features include:

- Connection to the onshore network, where we propose a longer connection application process to take account of additional design and development work that will be required. The connection process would also be closely integrated with the requirements of the OFTO tendering process;

- Charging, access and compensation, where we believe some changes are needed to suit the offshore regime, particularly that OFTO performance incentives should be directly linked to compensation payments to offshore generators; and

- Technical rules, where we believe changes will be required to recognise the differences inherent in the design and operation of the offshore networks.

We also set out in this document our proposals to implement this regime through appropriate changes to codes, licences, and agreements. We expect to continue to progress as much as possible of this work through existing industry workgroups, and through separate consultations with industry on proposed drafting changes.

We expect to publish an update on our proposals in October and consult on our final proposals early next year.

1. Introduction

Chapter Summary

This chapter outlines the purpose and structure of this document. It also summarises the policy objectives for the development of a licensed regulatory regime for offshore electricity transmission networks.

Questions

There are no questions in this chapter.

Purpose of this document

1.1. This document forms part of the ongoing process adopted by the Government and Ofgem to establish an appropriate regulatory framework for offshore electricity transmission networks. Since the Energy Act 2004 was passed, Ofgem and the Department for Business Enterprise and Regulatory Reform (BERR - formerly the Department of Trade and Industry) have worked together to develop detailed policy proposals to implement the relevant sections of the Energy Act which provide, amongst other things, for the amendment of the Electricity Act 1989 so that the prohibitions (and licensing and exemptions regime) also apply in the Renewable Energy Zone.

1.2. This consultation document builds upon previous consultation documents and decisions, including:

- The joint consultation on regulating offshore transmission networks (July 2005);
- The joint consultation on the licensing of offshore electricity transmission (November 2006);
- The Government's decision to adopt a non-exclusive approach for licensing offshore transmission (March 2007); and
- Ofgem's second Scoping Document on offshore electricity transmission (March 2007).

1.3. The primary purpose of this document is to set out our further thoughts on the design of the regulatory regime for offshore electricity transmission and outline how the regime might be implemented in practice. This consultation looks at a range of key policy issues, including:

- The obligations that an offshore transmission licensee will be required to meet and how it will be funded to meet those obligations;

- The process for appointing offshore transmission licensees, including the key stages of a competitive tender process;
- How existing offshore transmission networks will be treated at the time the regime comes into force;
- The mechanics of how the various parties involved with offshore electricity transmission will interact; and
- The process by which the regime will be implemented, for example the required changes to licences, codes and agreements.

1.4. In developing our further thoughts on these issues, we have taken account of the views expressed by the industry and other interested parties through the responses to the previous consultations and comments provided at a variety of fora. We particularly welcome the reactions received at the open workshop in April 2007 and the participation of stakeholders through a number of work groups that were established to inform the development of policy.

Policy Context

Government renewables policy

1.5. The Energy Review[1] and Energy White Paper[2] set out a number of measures that form part of the Government's strategy for tackling climate change, reaffirming the Government's long-term aim of reducing carbon emissions in the UK by 60 per cent by 2050. The development of renewable electricity generation is an important element in achieving this goal. Renewable technologies will generally produce lower emissions of carbon dioxide and other greenhouse gases than traditional generation using fossil fuels. Furthermore, the extra diversity that renewables bring to the UK's energy portfolio can make an important contribution to the Government's goal of meeting reliable and secure energy supplies.

1.6. The Government recognises the important role of renewable energy. It has reaffirmed its commitment to the target that, by 2010, ten per cent of UK electricity supply is met from renewable energy sources, together with a subsequent aspiration that, by 2020, twenty per cent of UK electricity supply is sourced from renewables.

1.7. For the immediate future it is likely that both onshore and offshore wind generation will make a significant contribution to the UK's renewable energy targets

[1] The Energy Challenge; Energy Review; A Report, July 2006
http://www.dti.gov.uk/energy/review/page31995.html
[2] Meeting the Energy Challenge: A White Paper on Energy, May 2007
http://www.dti.gov.uk/energy/whitepaper/page39534.html

and aspirations given the significant wind resources in the UK onshore and offshore and the relatively advanced nature of wind generation technology.

1.8. The Government set out and consulted on its strategy for the development of offshore wind in the document "Future Offshore - A Strategic Framework for the Offshore Wind Industry" published in 2002.

1.9. The Renewables Obligation (RO) has been established to support the development of renewable generation. The Energy White Paper outlined the Government's desire to strengthen the RO. It set out the Government's intention to increase the Obligation to up to twenty per cent as and when sufficient amounts of renewables are deployed and to introduce banding of the RO to offer differentiated levels of support to different renewable technologies[3]. It is envisaged that this will encourage the increased development and deployment of a wider range of renewable technologies. The RO and the Climate Change Levy exemption is projected to provide around £1 billion of annual support for deployment of renewable electricity in 2010, rising to around £2 billion of annual support in 2020. A strengthened EU Emissions Trading Scheme should also support investment in renewables.

1.10. In addition to creating the appropriate financial framework for renewable generation, the Energy White Paper also set out how the Government intends to reduce practical barriers to the development of renewable generation, such as:

- The introduction of improved planning inquiry rules from April 2007; and
- Fundamental reform of the planning system which will bring benefits to all large scale energy infrastructure, including large scale offshore and onshore renewable electricity projects, as discussed in the planning White Paper 2007[4].

1.11. Furthermore, Ofgem and BERR are working in partnership, together with industry, to consider and, where appropriate, develop reforms in the transmission access regime to ensure the efficient and effective connection of renewable generation (including offshore generation) to the onshore grid. Ofgem and BERR both consider that this project is important to reduce barriers affecting the connection of renewable generation in the future.

1.12. Offshore electricity transmission is a key building block of the Government's overall renewables policy. Up to 8GW of offshore renewable generation (principally wind) will be seeking to connect to the GB transmission system over the coming decade. It is expected that the cost of delivering the infrastructure necessary to accommodate this generation is expected to cost up to £2 billion. This generation

[3] Renewable Energy: Reform of the Renewables Obligation, May 2007
http://www.dti.gov.uk/consultations/page39586.html
[4] Planning for a Sustainable Future: A White Paper, May 2007
http://www.communities.gov.uk/index.asp?id=1510503

will make a major contribution towards the Government's targets for increasing the amount of available renewable generation capacity. The generation will largely be sited in three strategic areas – off the North West coast of England, in the Greater Wash and in the Thames Estuary.

1.13. Together, Ofgem and the Secretary of State have a number of relevant duties. They share some common duties under the Electricity Act 1989 and separately have a range of duties under other Acts. Amongst the duties under the Electricity Act 1989, there are the requirement to have regard to the need to secure sustainable development and the requirement to have regard to the environmental impact of licensed and licence exempt companies.

Policy development

1.14. The Energy Act 2004 provides the Secretary of State with powers to establish the regulatory framework for offshore transmission.

1.15. In July 2005, Ofgem and the Government jointly consulted on how offshore transmission should be licensed. The Government announced its decision in March 2006 that transmission licensees operating offshore should be price-controlled. An alternative option for a merchant approach to offshore transmission was ruled out.

1.16. In April 2006 Ofgem set out its initial thoughts on the issues posed by implementing a price-controlled offshore transmission regime and set out a framework for developing policy in its first Scoping Document.

1.17. In August 2006 the Government announced its intention the National Grid Electricity Transmission (NGET) should have its role as Great Britain System Operator (GBSO) extended offshore upon commencement of Section 91 of the Energy Act 2004 and the necessary modifications being made to NGET's electricity transmission licence.

1.18. Following the engagement of industry through the forum of the Offshore Transmission Experts Group (OTEG), we subsequently put forward for consultation in November 2006 two workable options for licensing transmission owner activities offshore. The two broad options for consultation were:

- **Exclusive licences**: based on onshore transmission network arrangements whereby a single TO be exclusively responsible for a defined geographic area; and
- **Non-exclusive licences**: based on the way in which new-build networks (such as Independent Distribution Network Operators and Independent Gas Transporters) are licensed. This approach would see multiple non-exclusive licences issued for the offshore area, with licensees free to compete for the right to build, own and operate offshore transmission assets.

1.19. Ofgem stated in the consultation that the Authority had concluded that while both approaches would meet the principal objective and statutory duties of the Secretary of State and Authority, it believed the “common tender” approach (tender undertaken by a third party) best satisfied its duties. The Secretary of State stated that he wished to take account of respondents' views before forming a conclusion.

1.20. In March 2007, the Secretary of State announced in a statement that he considered that the non-exclusive approach was the most appropriate model for licensing and regulating electricity transmission in the territorial waters and Renewable Energy Zone off the shores of Great Britain.

1.21. The following day Ofgem published a second Scoping Document providing a detailed overview of how it intended, in partnership with the Government and industry, to develop and deliver an offshore regulatory regime. The Document set out a framework to deliver the appropriate changes in accordance with the Government’s aims.

1.22. The March 2007 Scoping Document essentially set out a ‘straw man’ for the proposed offshore regulatory regime. Since its publication we have further engaged with industry through an open workshop in April and a series of work groups. Industry feedback has generally been supportive, recognising that the Government decision and Ofgem Scoping Document presented a model that could be implemented. Together with industry, we have sought to advance policy development across a number of areas such that we can provide clear direction for the final stages of the regime development in this document.

1.23. We anticipate moving into a more detailed process of licence and code drafting such that final proposals and accompanying documentation may be completed by the turn of the year. The Government will undertake a full consultation next summer. We anticipate that sections 90 and 91 of the Energy Act 2004 should be commenced in October 2008, which will enable the Secretary of State to direct the necessary modifications to codes, licences and agreements to implement the new regime. In this document we describe this as 'go-active'. We also anticipate that section 92 of the Energy Act 2004, which inserts section 6C of the Electricity Act 1989, should be commenced sufficiently in advance to allow Ofgem to make regulations prescribing how the tender process is to be run before the first tender process takes place following the 'go-active' date.

1.24. We currently anticipate that the new regime will come into force in October 2009[5]. In this document we describe this as 'go-live'.

[5] By 'go-live' all relevant sections of the Energy Act 2004 will have been commenced (sections 89 to 92 and 180).

Structure of this document

1.25. We first set out an overview of the new regulatory framework in Chapter 2. Then, in Chapters 3, 4, and 5 we address the key new policy development areas of regulatory regime design, tender processes, and proposals for transitional arrangements to deal with transmission assets that are being constructed or ready to be constructed prior to the new regime commencing.

1.26. In Chapters 6 and 7 we address the proposed approaches for connecting the offshore generators and their associated transmission assets to the onshore transmission and distribution networks. In Chapter 8 we provide an overview of the key policy and our preferred approaches for transmission charging, access and compensation. NGET have provided an introduction to Transmission Network Use of System (TNUoS) charges and connection charges which is reproduced in Appendix 4. In Chapter 9 we explain the changes that are proposed to address certain technical issues.

1.27. Our proposals for implementing the new regime through appropriate changes to licences, codes and agreements are discussed in Chapter 10, and in Chapter 11 we set out a timetable designed to achieve the target implementation dates.

Responses

1.28. We welcome responses on any aspect of this document and we particularly invite views from respondents on a number of our proposals. These are highlighted in the "Questions" box at the start of each chapter. A summary of all the questions asked and details of how to respond can be found in Appendix 1.

2. Overview of the offshore transmission regulatory framework

Chapter Summary

This chapter summarises our proposals for the offshore transmission regulatory framework. It provides an overview of the key policy objectives for an effective regulatory framework and describes the key elements associated with delivering competitive offshore transmission.

Questions

There are no questions in this chapter.

Introduction

2.1. Ofgem and BERR have been working together to design a regulatory framework that will result in electricity transmission licences being issued for offshore transmission owners (OFTOs) to connect specific or groups of generation assets. Our aim is to design a framework that will allow offshore transmission networks to be built in an economic, effective and co-ordinated manner.

2.2. We have developed the policy framework set out in this document around three key policy principles. These are:

- Developing an effective competition for the appointment of OFTOs which will facilitate the delivery of fit for purpose infrastructure at the least cost to consumers;
- Designing an offshore regulatory regime that can provide an appropriate balance of risk and certainty, which should in turn provide an attractive environment for prospective OFTOs; and
- Ensuring that industry processes operate effectively to support the proposed regulatory framework.

Overview of proposed regime

2.3. In this document, we propose that, as part of the enduring framework, OFTOs would be responsible for designing, building, financing and maintaining assets from the offshore connection point (an offshore substation at the point of generation) to a point of connection to an onshore network (an onshore substation). In return, we propose that OFTOs would receive a regulated income stream for a predetermined period. The obligations and entitlements in respect of each offshore project would be contained within the licence that is awarded to the OFTO.

2.4. We recognise that it is important that the regulatory regime is structured to provide an appropriate balance between obligations and incentives, whilst providing sufficient certainty, to encourage prospective OFTOs to enter the market.

2.5. Ofgem's March document set out a 'straw man' for the regulatory regime. We have sought to further develop the proposals that Ofgem set out, taking account of industry comment. The main development is our proposal that OFTO's should receive a fixed revenue stream for a 20 year period, with some scope for incremental expansion (within a predetermined limit). However, we do not intend to provide for automatic revenue re-openers in the light of predetermined events. The issues surrounding the regulatory regime are set out in Chapter 3.

2.6. The Government announced in March that the relevant OFTO for each offshore generation project should be selected by means of a competitive tender. This represents a departure from traditional ways of regulating energy network companies. The document contains our proposals for this new regime, which are designed to strike an appropriate balance between protecting consumers' interests and facilitating the connection of generation in a timely, economic and efficient manner.

2.7. Our thinking on the design of the competitive tender process in the enduring regime is set out in Chapter 4. This outlines our proposed refinements to the stages of the tender process in the light of industry feedback. We envisage a process where prospective OFTOs would bid a revenue stream against predetermined requirements and an expected risk profile and that the appointed OFTO would be awarded a licence that would provide for a long term revenue stream.

Treatment of transitional schemes

2.8. There are a number of offshore projects where the offshore generator is already constructing or undertaking steps towards construction. The regulatory framework we are designing recognises the different stages of development of these transitional projects. This document therefore discusses the issues around and sets out specific proposals for the treatment of transitional projects in Chapter 5.

2.9. There are three categories of transmission project that are currently being developed by offshore generators which cannot readily be accommodated under the enduring regime and therefore need to be addressed under transitional arrangements. These are:

- Projects where full financial close (or equivalent) has been reached and construction has been completed by the 'go-active' date (October 2008). These projects can be tendered following the 'go-active' date (based on Ofgem's ex post view of efficient expenditure) such that an OFTO can be in place to adopt the assets by the 'go-live' date (October 2009);

- Projects where full financial close (or equivalent) has been reached and construction contracts have been signed so that construction has already commenced or can commence from the 'go-active' date. These projects can similarly be tendered following the 'go-active' date (based on Ofgem's ex ante estimate of the Regulatory Asset Value (RAV)) such that an OFTO can be in place to adopt the assets after the 'go-live' date when they are fully constructed. Ofgem could potentially make subsequent ex post adjustments to the RAV (at the generator's risk) if construction was not found to be efficient; and

- Projects which have not reached full financial close (or equivalent) and which have not entered into construction contracts, by the 'go-active' date, but which reach these targets by the 'go-live' date. These projects could be tendered from the 'go-live' date (based on Ofgem's ex ante estimate of the RAV) such that an OFTO can be in place to adopt the assets after the tender process is completed and when construction is completed. Again, Ofgem could potentially make subsequent ex post adjustments to the RAV (at the generator's risk) if construction was not found to be efficient. Alternatively, these projects could chose to apply on the 'go-active' date for an OFTO to be awarded a licence under the enduring tender process.

2.10. There are also projects which might not meet the above pre-conditions at the 'go-live' date but in respect of which developers would wish to proceed in a timely manner to have an OFTO appointed. These projects could apply on the 'go-active' date for an OFTO to be appointed to design, build, finance and maintain transmission assets through the enduring tender process. In this situation, where developers have undertaken some development work for the offshore transmission assets before an OFTO is appointed, such as design work, an OFTO would be expected to adopt such development work in the tender process and to pay efficiently incurred third party costs of any such work.

2.11. As proposed in Ofgem's March Scoping Document, developers that need regulatory comfort before starting construction in the second and third categories above would be able to receive from Ofgem comfort that they would be entitled to be paid at least seventy five per cent of Ofgem's ex ante estimate of the RAV by the OFTO which adopts those assets.

Way forward

2.12. This document sets out our further thinking on the regime for offshore transmission. Over the coming months, work will continue to develop the policy positions further and we would welcome continuing engagement from industry. We intend to issue an updated policy paper in October, with final proposals set out early next year.

3. Design of regulatory regime

Chapter summary

This chapter provides an overview of the regulatory regime for offshore electricity transmission. It sets out policy in five key areas:
- The regulatory and contractual framework;
- The role of the Offshore Transmission Owner;
- The incentive and penalty regime;
- How additional requirements of the generator will be dealt with; and
- How risk is allocated.

Questions

Question 1: Do you agree with our proposals for the design of the regulatory regime as outlined in this chapter? In particular, we would welcome your views on
- the role of the OFTO and the obligations that it would undertake;
- the regulatory and contractual framework, including the duration of (and what happens at the end of) the revenue stream, predefined adjustment mechanisms, transfer arrangements, and business separation requirements;
- the form and quantum of performance incentives;
- dealing with changes to generator requirements; and
- the allocation of risk.

Question 2: Do you feel that there is any aspect of the design of the regulatory regime that we have not considered sufficiently?

Summary

3.1. The key proposals for the design of the regulatory regime are:

- An OFTO would hold a transmission licence granted by the Authority. The licence would contain standard and special conditions setting out the OFTO's obligations and how it will be remunerated. The licence would cover assets between the offshore and onshore connection points;
- A controlled revenue stream would be granted to the OFTO for twenty years to cover the cost of designing, building, financing and maintaining offshore transmission assets. Prospective OFTOs would bid their desired revenue stream in a competitive tender process;
- There would be an incentives and penalties regime to address key performance criteria such as asset reliability and availability, as well as construction delivery;
- Generators could vary requirements above and below the minimum standard and these would be dealt with outside of the regulatory regime; and

- Risk relating to transmission assets would be allocated amongst three key parties. The OFTO would be expected to bear and manage design construction, maintenance, financing and decommissioning risks. Consumers and network users, via the GBSO, would provide payment security, and share stranding risk with the offshore generator.

Proposals

3.2. We set out below our proposals across a range of issues deriving from the design of the regulatory regime. These proposals have in large part been informed by a series of workshops we have undertaken with key industry players, including prospective OFTOs and generators. In this chapter we:

- Expand on the role that OFTOs will be expected to undertake;
- Set out an overview of the regulatory and contractual framework;
- Set out our views on how an incentives and penalties regime might work for OFTOs;
- Explain how generators may request additional services outside of the regulatory regime;
- Look at how risks will be allocated amongst the relevant parties operating offshore; and
- Confirm our position with respect to disputes and arbitration.

The role of the OFTO

3.3. In return for receiving a licence entitling it to a twenty year revenue stream, each OFTO would have certain obligations set out in its licence. A number of these obligations would be standard to all OFTOs, including such things as the requirement to accede to certain industry codes and agreements detailed in the standard conditions of its licence. Ofgem's March 2007 Scoping Document noted, however, that in order to optimise the scope for design innovation, the terms under which each OFTO bids (and which would ultimately be set out in the special conditions of its licence) might vary according to the individual requirements of the generator for which it would be providing a connection to an onshore network.

3.4. Notwithstanding the possible variations noted above, each OFTO is likely to have the following obligations[6]:

- A requirement to design, construct, and maintain a transmission network with a defined power transmission capacity which connects a generator or generators to an existing onshore grid;
- A requirement that the assets it is providing should be 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;
- A requirement to meet certain predefined performance obligations (set out in the following section) required by the generator or generators throughout the life of its licence;
- A requirement to meet predefined technical requirements in order to provide certainty of delivery; and
- A requirement before construction to provide evidence that it has binding commitments in place to design, build, finance and maintain the required infrastructure.

Regulatory and contractual framework

3.5. We set out below the key features of our proposals for an offshore regulatory framework. In designing our proposals for the offshore regime, we have sought to replicate where possible arrangements that exist onshore. We have designed an illustrative regulatory and contractual framework for offshore transmission networks, set out in Appendix 2, which may be useful to read in conjunction with these proposals.

3.6. The key proposals for the offshore regulatory framework are:

- Owners of offshore transmission assets must hold a transmission licence. Offshore transmission owner licences (OFTO licences) will be granted by the Authority for a fixed period of twenty years post-construction. There would be a new section E in the standard conditions for transmission licences which would contain standard conditions for OFTOs. This would only be "switched on" in OFTO licences. This is explained further in Chapter 10. Licences held by OFTOs would

[6] These obligations will largely apply to OFTOs in the enduring arrangements (set out in Chapter 4). For projects in the transitional arrangements (set out in chapter 5), many of these obligations will fall instead to the party developing the project (usually the generator).

also include special conditions setting out any obligations specific to them and arrangements for remuneration;

- OFTOs would be required to hold the relevant seabed lease or licence granted by Crown Estate as well as all necessary planning and environmental consents;

- As a Government announcement made clear last August, the role of NGET as GBSO will be extended offshore upon commencement of section 91 of the Energy Act 2004. This means that NGET will act as a unified system operator for both onshore and offshore networks. It will continue to recover its costs from system users through the various industry wide codes and the price control regime imposed under its transmission licence;

- OFTOs would be obliged under their licences to be signatories to the System Operator Transmission Owner Code (STC); and

- OFTOs would also be required to have in place a decommissioning plan that has been approved by the Secretary of State in accordance with part 2, chapter 3 of the Energy Act 2004.

Licence conditions

3.7. Each OFTO licence would include new terms, standard and special conditions. There would be certain “start up provisions", some of which might be terms of the licence, others which would be standard conditions (i.e. apply to all OFTOs) and some which would be special conditions (specific to each individual OFTO). The OFTO would need to fulfil the terms of these conditions (such as the completion of construction of the offshore transmission assets by a specified date and to a certain standard) before it would be able to commence providing transmission services. Once the terms of these “start up provisions” had been met, then other relevant conditions would be "switched on" (i.e. come into effect). We are also considering how to address an OFTO's failure to meet the "start up provisions" within a reasonable predefined period.

3.8. Licences issued to OFTOs would probably include some of the same revocation provisions as onshore licences. The relevant provisions would permit Ofgem to revoke the licence if the licensee has failed to comply with an enforcement order made under section 25 of the Electricity Act 1989 or failed to pay a financial penalty imposed by Ofgem under section 27A of the Electricity Act 1989.

3.9. We envisage that if the OFTO's licence were to be revoked, a new tender process would need to be conducted to select a replacement OFTO. Nevertheless, this would require arrangements to be put in place to facilitate the effective transfer of assets to the new OFTO. We welcome views on how this transfer of assets might be effectively achieved.

3.10. We plan to consult further in October setting out what might be included within an OFTO licence, including the types of standard and special conditions which OFTOs would be expected to comply with. It is likely that these would be based in large

part on existing standard and special licence conditions, though their form may be simplified to reflect the different nature of obligation and remuneration for OFTOs.

Period of revenue stream

3.11. In Ofgem's March Scoping Document, it proposed that prospective OFTOs should bid a firm revenue stream for the term of the licence or the life of the generation or transmission assets, and that this would then become the agreed revenue stream to be paid to the successful OFTO by the GBSO. This certainty of payment principle is equivalent to the principle applied in the onshore transmission price control arrangements.

3.12. The term over which an OFTO would be remunerated has been discussed at a number of industry workshops. The broad consensus has been that OFTOs should be able to recover their costs over a period consistent with the expected life of the offshore generation assets. An alternative approach would be to remunerate the OFTO over the potential life of the transmission assets. However, we recognise that the transmission assets may have a longer life than those of the offshore generator with limited scope for utilisation by other parties. As such, we recognise the increased risk of stranded costs that might arise under this approach.

3.13. In the light of these discussions, we consider that there are merits in providing a revenue stream for the duration of the licence. At present, we are minded that offshore transmission licences should be awarded for a period of twenty years post-construction, which would be consistent with the anticipated asset profile of offshore generators. As such, we consider that this provides an appropriate balance between the interests of consumers and the ability of the OFTO to finance its investment over a reasonable period.

Predefined adjustment mechanisms

3.14. Price controls for onshore transmission owners are regularly reviewed, typically every five years. This is to allow for, amongst other things, an assessment of capital expenditure necessary to extend the network and replace old assets and to review the costs of operating the network.

3.15. We do not consider that regular reviews for offshore networks would be necessary. One reason is that the nature of offshore networks is likely to be very different, with bespoke assets being constructed to serve typically only one or two users. There is unlikely to be much scope for incremental capital investment (see section below on generator requirements). Further, regular reviews would dilute the effectiveness of a competitive bidding process, which should in turn deliver an efficient cost for construction and maintenance of assets over a twenty year period. We also recognise that projects with a longer term revenue commitment would be able to secure finance more easily. Ofgem noted in its March Scoping Document, however, that if the regime is considered too rigid then there is a risk that generators and consumers may pay a higher price if OFTOs build risk premiums into the revenue streams which they bid.

3.16. In general, we consider that risks that might require additional or contingency spend should be borne by the OFTO. In some instances, these risks may be insurable by the OFTO although it is important that insurance products are procured in a cost effective manner. Nevertheless, there may be some exceptional risks that are difficult to predict or manage.

3.17. In March, Ofgem also expressed concern that post construction refinancing benefits might not be shared with users of the OFTO's network and consumers without the use of pre-defined adjustment mechanisms. However, we consider that such benefits may instead be realised through the operation of an effective tender process.

3.18. In March, Ofgem noted that for exceptional risks it might be sensible to consider a limited number of predefined change mechanisms. These mechanisms would flex revenues to meet the costs of unanticipated events when they occurred. Several respondents to Ofgem's document supported the use of such mechanisms as a means of managing risk.

3.19. We have considered the advantages and disadvantages of adopting such mechanisms. We consider that in responding to exceptional events it is often desirable to have a degree of flexibility to facilitate the most effective solution to fit the circumstances concerned. As such, we consider that it is difficult to define robust automatic mechanisms to deal with uncertain outcomes and such mechanisms might provide opportunities for gaming. In the light of this, we consider that the potential distortion of predefined change mechanisms on the competitive process could outweigh the benefits of having such mechanisms. Nevertheless, Ofgem may choose to exercise its general powers to modify licences in the most exceptional of circumstances.

3.20. The ability to provide long term certainty of revenue reflects our expectation that competition in the provision of offshore transmission assets will encourage prospective OFTOs to pass on the anticipated efficiency gains in the form of lower priced bids. One of the key concerns expressed is the possibility that a limited or ineffective tender for offshore transmission projects might result in these benefits being retained by the OFTO. This could have significant implications for the costs and risks borne by consumers and generators. We consider it important that the interests of offshore generators and consumers are adequately protected where the competitive process is ineffective. One approach to ensure this could be to adopt a more traditional regulatory solution involving the periodic review of the costs of financing and operating the offshore transmission networks in cases where competition has been demonstrably ineffective. We would welcome views on this issue.

The end of the licence period

3.21. It is important to consider what happens at the end of the licence period. One option is that the licence could be re-tendered. An alternative approach could involve an option to allow the OFTO to extend its licence for a further period. Both

approaches would provide an opportunity for an OFTO earn a further revenue stream where it can demonstrate that the assets may be utilised for a further period. In the former case, the revenue would relate to a competitive bid of a prospective OFTO, although potentially for a shorter duration than the initial licence. In contrast, the latter option would be likely to require a full cost assessment exercise to establish the level of revenue required to maintain operation of the assets and the duration of any further revenues given the requirements of an offshore generator. We would welcome comments on the treatment of OFTOs at the end of the licence period.

Ring fencing obligation

3.22. As set out in the Government decision, published in March 2007, offshore generator affiliates will be allowed to bid for offshore transmission licences subject to compliance with relevant EU legislation. We envisage that such companies should be separate businesses and appropriate ring-fencing should be put in place to ensure generation and transmission businesses are operated separately. One reason for ensuring that appropriate ring fencing and business separation obligations exist is to enable special administration arrangements to function effectively in the event of OFTO financial failure.

3.23. We therefore propose that the OFTO should be established as a separate legal entity. We noted in our November 2006 consultation and the Government noted in its March 2007 decision that the possibility of generator affiliates owning transmission businesses should be consistent with arrangements onshore. However, we also noted that the European Commission in the context of the EU Strategic Energy Review was considering a range of measures that might include unbundling. We note that this remains a possibility.

Performance obligations, incentives and penalties

3.24. We propose that the OFTO's licence would contain a number of performance related obligations, such as construction delivery date, standard of construction, annual availability and number of interruptions, losses and availability performance measures.

3.25. It is possible that there could be agreed generic obligations which would, by default, form the terms against which prospective OFTOs would bid. Such obligations might include for example, construction delivery by the given onshore connection date, annual availability of ninety seven per cent, no more than three unplanned interruptions in any given year, one major failure every ten years (with a maximum return to service time of, say, two months), and losses of a maximum of two per cent between the offshore and onshore connection points. We would welcome views on the form and quantum of such performance obligations.

3.26. The default terms would provide the basis against which penalties and incentives would be measured. However, we propose in Chapter 4 that it could be possible for OFTOs to produce "variant" bids which they believed added value for generators and consumers alongside their main bid. In such cases, OFTOs could

propose alternatives to the generic obligations above and price them accordingly in terms of the penalties they were exposed to and the incentives they would seek.

3.27. An OFTO could also incur financial penalties or receive an enforcement order from Ofgem for breaching its licence conditions. It would be for the Authority to determine the extent of the financial penalty. The threat of potential licence revocation should also incentivise performance.

3.28. The OFTO's principal incentive would be receipt of its revenue stream. In most cases, it may not be appropriate for incentives to be applied for exceeding required obligations as there is little benefit to either generators or consumers in doing so. However, there might be benefit in an incentive for exceeding losses targets as this benefits both generators and consumers.

Generator requirements

3.29. OFTOs will typically build networks which reflect the minimum technical requirements set out in the Great Britain Security and Quality of Supply Standard (GBSQSS) and the STC (see Chapter 9 for further information). OFTOs would only be remunerated on the basis that the assets they were required to provide would be efficiently constructed and fit for purpose - in other words which reflected the capacity required by the generator or generators which it was connecting.

3.30. We envisage that the tender process may reflect the requirements of the generator which could vary from the requirements of the GBSQSS. As with onshore networks, we would expect that the generator would be exposed to the full cost or benefit of its variation. For example, if it were to require lower availability it would expect to face lower charges than if the network had been built to the required standard.

3.31. Once the OFTO has been appointed, it may receive requests from an incumbent generator or a new generator locating close to the existing connection for the OFTO to make available additional capacity or to provide a number of other services beyond those that it is required to provide under its licence. This might include such things as redundant capacity to guarantee access to the network or for the OFTO to provide the earliest possible (rather than the most efficient) connection date.

3.32. We propose that in a number of circumstances the OFTO would be able to provide such incremental capacity and services to the generator on a bilaterally agreed basis. The terms of the agreement between the generator and the OFTO would fall outside the regulatory framework. They would not be reflected in the regulated charges paid by the generator or the regulated revenue stream received by the OFTO. However, in the case of major incremental capital expenditure (for example in providing additional offshore cables to support a major expansion of a generator) we would expect to tender these schemes to ensure that the most economic and efficient solution is found.

3.33. While this approach provides some flexibility, it is important that the regime is sufficiently robust and does not provide OFTOs and generators with too much discretion as this is likely to undermine the overall protection of consumers' interests. Too little flexibility however is likely to be detrimental to consumers also since it may result in over-investment. In the light of this, we are minded to allow an OFTO to undertake some incremental investment in response to the requirements of an existing or new generator. However, to ensure that the interests of consumers are adequately protected, we are minded to limit the scope for investment during the period of the licence to an aggregate cap of twenty per cent of the expected lifetime cost of the assets.

Allocation of risk

3.34. A key determinant of the proposed regulatory regime is how and which risks are allocated between the various stakeholders for offshore transmission. There are three primary stakeholders - the offshore transmission owner, the offshore generator and consumers/network users (via the GBSO).

3.35. The table in Appendix 3 provides an overview of the likely risks that would arise during the lifetime of an offshore transmission asset and considers which of the three parties should be responsible for bearing and managing these risks.

3.36. We have considered the appropriate allocation of risks in four different periods:

- Bidding Phase;
- Design and Construction Phase;
- Operation Phase; and
- Post price control regime.

3.37. There are also some risks which appear to be generic, that is, applicable equally in both design and construction and operation phases. In our proposed allocation of risk, we have considered who is best placed to manage the risk and its consequences. We have taken into account how risks are allocated onshore and in Private Finance Initiative (PFI) or project financed projects and the reasons for distinguishing offshore risks from onshore and PFI or project financed project risks.

Bidding phase

3.38. During the bidding phase, the bidders will incur bid costs. It is proposed that bidders bear their own bid costs, including some of the costs of running the tender process, although the successful bidder is likely to recoup its costs through the price controlled revenue stream.

3.39. There is also a risk during the bidding phase that the generator could withdraw its connection application or delay its development. This risk can be minimised by ensuring that at the time the tender process commences the development is sufficiently certain; and also by requiring a substantial fee to be paid for the connection application. We are also considering whether we should introduce obligations that require an offshore generator to meet the costs of OFTO bidders and the costs of Ofgem in respect of the tender process in the event that the generator withdraws its application at particular stages of the tender process.

Generic risks in both design and construction and operation phases

3.40. There will be some project risks which we consider should be borne by the OFTO although they are outside the OFTO's control, including change of Government policy, change of regulatory regime by Ofgem and change in law. Such risks are currently borne by all licence holders onshore and there is no reason for OFTOs to be treated differently.

3.41. In order to comply with the Internal Markets Electricity Directive (IMED), the OFTO would have an obligation to offer third party access to its cables only insofar as existing capacity was available. The OFTO would not be obliged to provide any additional capacity, but could choose to do so as mentioned in the section on generator requirements above.

3.42. The risk of generator financial failure/insolvency which might cause stranding of the OFTO assets could be borne by consumers (via the GBSO), the offshore generator and/or the OFTO. It seems reasonable to allocate some risk to the generator (in the form of upfront payments to the GBSO) so that it has an incentive to manage its financial risk effectively. However, if the risk were too high it could be a barrier to entry, particularly for smaller players. If the risk were allocated to the OFTO, the OFTO would need to do due diligence on the standing of the generator, which we do not anticipate would be an attractive proposition. In addition, the risk would be priced into the OFTO's bid. In relation to onshore transmission, this risk is currently shared between the generator and consumers. We do not propose to change this balance of risk. This would mean that the OFTO continued to receive its revenue stream.

3.43. To be consistent, the risk of the OFTO becoming insolvent/failing is a risk which should not be borne by the offshore generator. As with onshore transmission, there is a special administration regime under the Energy Act 2004 which could be invoked in particular circumstances so that the transmission assets would continue to operate and to enable the delivery of electricity.

3.44. There is a concern that the placement of cable may lead to sterilisation, that is, may prevent the onshore connection point or cable route used from being shared with other future offshore generators or OFTOs. We are considering this matter further.

Design and Construction Phase

3.45. As with onshore networks, an OFTO would be expected to manage all usual risks during the design and construction phase, including risks of sea-bed condition, obtaining relevant leases, licences and consents, cost overruns, delays, design risk, and financing risk, other than as mentioned above.

Operation Phase

3.46. Similarly, and consistent with onshore networks, an OFTO would be expected to manage most of the usual risks during the operation phase, including risks of revocation or amendment of licences or consents, outages, underperformance, increases in operating costs, contractor default or termination, compliance with codes and agreements and financing risks.

3.47. The OFTO would have predictable outages for repair and maintenance. It is expected that these outages would be scheduled to align with outages of the connected generator and/or times at which conditions, such as weather, prevent the offshore generator generating. We consider that where incentive revenue adjustments apply, these could be passed on to the generator in full. Consequently, we would expect that an offshore generator would be remunerated for unsatisfactory performance in the form of an appropriate rebate on its transmission charges.

3.48. While this approach does not envisage the OFTO contracting directly with the offshore generator, a direct contractual relationship is one method of achieving the transfer of performance related adjustments to charges. An alternative approach is to amend industry agreements to enable the GBSO (who receives TNUoS charges from the offshore generator) to facilitate the transfer of monies.

Post price control regime

3.49. The OFTO will be obliged to meet, and where required by the Secretary of State have security in place to guarantee payment of, the decommissioning costs at the end of the life of the network assets. Nevertheless, this may not coincide with the expiry of the OFTO licence. In some instances, there may be some residual value left in the OFTO's assets. Whilst the financing costs of construction would have been paid for in full, the OFTO might be able to reuse the assets where an operational generator is connected or is likely to connect. Rather than these assets becoming stranded, it could be desirable that Ofgem has the opportunity to re-tender for a new OFTO to operate and maintain the assets. Alternatively, the regulatory framework could allow for the existing licensee to apply for a licence extension.

3.50. At present, we see merit in the re-tendering of assets in delivering ongoing benefits to generators and consumers alike. However, we recognise that such an approach would require arrangements to be put in place to enable the transfer of assets from the licensee to another OFTO for the process to be effective.

Disputes and arbitration

3.51. Ofgem raised the issue of disputes and arbitration in its March Scoping Document. We consider that existing dispute resolution procedures under the Act, licences and codes are sufficient and that no further procedures are required.

4. Enduring Competitive Framework

Chapter summary

This chapter outlines our proposals for the enduring competitive framework for the appointment of an OFTO. This process will not apply to transitional projects as these will be subject to specific transitional arrangements (see Chapter 5).

Questions

Question 1: Do you agree with our proposals for the enduring competitive process as outlined in this chapter? In particular, we would welcome your views on:
- the use of an annual tender application window;
- the design of the tender process, and the stages we have outlined;
- recovery of tender costs; and
- running the tender process.

Question 2: Do you feel that there is any aspect of the enduring tender process that we have not considered sufficiently?

Summary

4.1. This chapter first outlines our thinking on how the tender process should be designed and then provides an overview of a proposed method. It then explores the options of who is best placed to run the process. This chapter covers enduring arrangements. There are a number of offshore generation projects that are under construction or will be undertaking steps towards construction by the time the regime is introduced. Such projects will be subject to transitional arrangements which are outlined in Chapter 5.

4.2. The key proposals for the design of the enduring competitive framework are:

- Ofgem would make regulations using section 6C of the Electricity Act 1989 (to be inserted upon commencement of section 92 of the Energy Act 2004) to prescribe a tender process to be used for determining on a competitive basis to whom an OFTO licence should be granted in respect of each offshore generation project. Bidders would not need to be pre-licensed to operate in the offshore area (as was envisaged in the November 2006 consultation). Instead, any person which can meet the prequalification criteria could tender for the right to design, build, finance and maintain an offshore generator connection, against pre-defined commercial arrangements;

- There would be an annual tender process commencing from a 'window' where offshore generators indicate that they wish to initiate a tender process for their transmission connections, thereby achieving benefits of co-ordination;

- We consider that there is merit in adopting standardised tender documentation for each project, where possible. However, we recognise that some project specific information will be necessary, including a high level functional specification for connecting a specified amount of capacity under a given set of commercial and technical requirements;

- The tender process would potentially be undertaken over several stages. These could include initial pre-qualification, expression of interest, invitation to tender, preferred bidder and appointment of an OFTO. At each stage of the process we propose to use predetermined criteria to evaluate the tenders. Those tenders that satisfy the evaluation criteria would be expected to participate in the next stage of the process. Once a preferred bidder was identified, then final negotiations regarding the project would take place before the award of a licence was made;

- We do not intend to prevent or restrict generator-affiliates from bidding to become an OFTO. Nevertheless, we note the potential for future UK or EU legislation which may prohibit common ownership of transmission and generation (see Chapter 3). We would seek to enforce such prohibitions if they were to be introduced and therefore we advise generator-affiliates to consider this carefully before bidding. In the meantime, an offshore generator may have local knowledge that could be exploited in the delivery of economic and efficient transmission assets. As such, this could provide an offshore generator with a competitive advantage that needs to be recognised within the tender process and industry rules; and

- We do not propose that there should be an OFTO of last resort. Consequently, an OFTO would not be appointed in the event that there were no bidders. We would envisage that a project would be re-tendered, possibly with some modifications to the project specification.

4.3. In using the provisions of section 6C of the Electricity Act 1989 (to be inserted upon commencement of section 92 of the Energy Act 2004), Ofgem would manage the tender process and approve the selection of bidders at each stage of the process. The framework and rules for an efficient process need to be designed and agreed. Appropriate arrangements would need to be put in place to ensure that the Authority could run an effective and efficient tender process, including arrangements for cost recovery.

Proposals

4.4. In March 2007, the Government set out its decision to adopt a framework of non-exclusive licensing for offshore transmission networks. This decision signalled an intention that OFTOs intending to design, build, finance and maintain offshore transmission assets would be selected by means of a competitive process. The March 2007 Scoping Document set out Ofgem's initial thoughts on the design of the tender process and sought views on the most appropriate organisation to carry out such a process.

4.5. This chapter sets out further thoughts on the design of the enduring competitive framework and proposals for the management of the tender processes. Our thinking has been informed by discussion with key stakeholders and responses to the March consultation.

4.6. The tender process would select the winning bidder to provide each new offshore transmission connection. It is essential that the tender process should be effective in attracting bidders, while ensuring an effective competition and providing the certainty of delivery from the successful bidder. Once the tender process has been designed in more detail, we plan to give an indication of the length of time each stage would take. At this stage, we envisage that the tender processes described in this chapter might take about a year to complete for the first tender rounds.

4.7. The sections below explore the design of the tender process, the treatment of costs arising under the tender process, and the management of the process.

Designing the process

Introduction

4.8. We propose that Ofgem make regulations using section 6C of the Electricity Act 1989 (to be inserted upon commencement of section 92 of the Energy Act 2004) to prescribe a tender process to be used for determining on a competitive basis to whom an OFTO licence should be granted in respect of each offshore generation project. In the November 2006 consultation, we envisaged that before a tender process could take place the Authority would have to issue non-exclusive transmission licences for the whole offshore area to any applicant which met the criteria under the application regulations. This was because it was also envisaged that the tender process might be run by the GBSO or another independent party which were not able to award licences. The Government has since decided that the GBSO is not an appropriate party to run a tender process and that the Authority would need to approve each successful bid as well as approve the price control for each licence.

4.9. If Ofgem uses its power under section 6C of the Electricity Act 1989 to regulate for a tender process resulting in the award of an OFTO licence, the pre-licensing of bidders is not necessary. Instead, any person that can meet the prequalification criteria could tender for the right to design, build, finance and maintain an offshore generator connection, against pre-defined commercial arrangements. We consider that this will enable an efficient tender process which will achieve our objectives. We consider that the practical effects of this change in our proposed approach will not be materially significant on either offshore generators or potential OFTOs.

4.10. The OFTO licence would provide an OFTO with the right to receive a regulated income in return for providing transmission services, including the designing, building, financing and maintenance of a transmission connection between an onshore connection point (onshore substation) and the offshore connection point (offshore substation).

4.11. We recognise that it takes some time to design, build and finance offshore transmission assets. Once constructed, we envisage that the OFTO would be able to earn a revenue stream for the duration of the transmission licence. In Chapter 3, we set out our current thinking that each OFTO licence would include, amongst other things, certain “start up provisions”. The "start up provisions" would set out the construction requirements that needed to be met. Once the terms of these “start up provisions” had been satisfied, then all other relevant conditions of the licence would be activated.

4.12. The tender and connection application processes need to be coordinated effectively. We envisage that for the tender to proceed from each stage that certain pre-conditions regarding the connection application would need to be satisfied. This is necessary to minimise the possibility of unnecessary costs being incurred. We envisage that the submission of an appropriate connection application request to the GBSO by an offshore generator would signal that a tender process would be required and the initial stages of attracting bidders would commence[7]. The application would specify the capacity of generation to be connected and would be accompanied by an application fee. Appropriate financial commitment towards the cost of providing the connection from the generator would be required during the connection application process.

4.13. We propose that an annual tender application window could be introduced such that tenders would all start from the same time each year e.g. autumn, for each of the offshore generators ready to initiate a tender at that time. This could have the benefits of encouraging co-ordination between offshore generators in determining transmission requirements for the tender, and making it easier for OFTOs to develop their bids across a number of projects, thereby potentially enhancing the degree of competition with its associated benefits. This is discussed further in Chapter 6.

4.14. This tender process would not be subject to EU procurement rules for public bodies (i.e. Directive 2004/18/EC as implemented by the Public Contracts Regulations 2006). EC Treaty principles of non-discrimination and transparency would, however, be observed.

4.15. In the March Scoping Document, Ofgem detailed eight stages in respect of the tendering process for offshore transmission networks. Several respondents commented that they saw merit in fewer stages. We have taken account of these views in developing the proposals to include four key stages:

- Expressions of Interest and pre-qualification;
- Invitation to Tender and evaluation of bids;
- Best and Final Offer (an optional stage); and

[7] The connection application process is outlined fully in Chapter 6

- Selection of preferred bidder and financial close.

4.16. We are presently developing the tender documentation and evaluation methodologies to support such an approach and will consult to obtain views on this approach. Communication of this will be made through the continuation of workshops and bilateral meetings with interested parties and more widely in the next consultation document in October 2007. A brief summary of each phase and key issues for consultation is outlined below.

Expressions of Interest and pre-qualification

4.17. Initially an advertisement would be published setting out the intention to run a tender process for the award of a licence with a link to an Expression of Interest document describing the generation project in respect of which an OFTO is being sought and inviting expressions of interest. This stage is intended to provoke sufficient interest in the project from a wide range of suitable bidders.

4.18. This stage would be initiated once the GBSO had confirmed that it had received an application for connection (and the associated application fee). At this stage, the GBSO would have three months within which it would produce an initial indicative connection offer for the applicant (usually a generator). We expect that the developers would also provide sufficient project specific information to enable prospective OFTO bidders to develop an appropriate response to the Expression of Interest documentation.

4.19. Once potential bidders have provided their response to the Expression of Interest documentation, we propose that there should be a prequalification process to screen unsuitable bidders against pre-defined evaluation criteria to ensure that only a smaller number of bidders with sufficient technical acumen and financial strength proceed to the Invitation to Tender stage of the tender process and incur the costs associated with detailed bid submission. In the event of only very limited expressions of interest this would indicate the potential need for greater marketing before a further public invitation is issued. We do not envisage that there will be an OFTO of last resort appointed if no-one expresses interest.

4.20. We believe that where practicable, unnecessary duplication of infrastructure should be avoided, in particular where OFTO bids could cover adjacent projects. To this extent the Expressions of Interest may encapsulate the offshore transmission assets for more than one offshore transmission project so efficiencies might be obtained through joint bidding for combined offshore transmission infrastructure with more than one offshore connection.

Invitation to Tender and evaluation of bids

4.21. The GBSO would issue its initial indicative connection offer to the applicant within three months. This offer would stay open for up to three months. Once the

applicant had signed the offer (and provided an appropriate user commitment), the tender process could progress to the next stage. The Invitation to Tender (ITT) stage would be the first opportunity for bidders to submit their proposed bid for an annual revenue requirement in return for providing transmission services for a twenty year period.

4.22. An appropriate party appointed by Ofgem (such as the GBSO or another party) could collate the necessary information in respect of each qualifying project to provide to potential bidders in the ITT. The offshore developer would have a significant role in supporting the OFTO tender process through the provision of such project specific information on consent and operating requirements to prospective bidders. It is essential that bidders should be provided with clear and concise instructions and high quality information when inviting them to provide detailed project delivery solutions. Any commercially sensitive information would be covered by a confidentiality agreement. All information would be presented in a data room. The information would be expected to include:

- The connection offer;
- Minimum technical requirements of the GBSO and the generation station;
- Consents and other route information (such as sea bed surveys) that may have been obtained by the offshore generator. We would also require the generator to have some consents in place for the project to proceed;
- The application form for a transmission licence; and
- The proposed transmission licence conditions.

4.23. The ITT would invite bidders to submit by a specified date technical, commercial, legal and financial documents and information, including the following:

- Its technical and commercial proposals for designing, constructing, financing and maintaining the offshore transmission assets, including any proposed subcontracts (Engineering, Procurement and Construction (EPC), operation and maintenance agreements etc.);
- Its proposed financing structure (including any refinancing assumptions made) and lenders or parent company commitment to support its ongoing commitment to provide the transmission services (for example term sheets for loan facilities);
- Its proposed timetable for construction and commissioning of the assets;
- Performance standards which it proposes to achieve;
- A statement of how it would meet the licence application criteria (as set out in the application regulations);

- A licence application fee[8] and possibly also a bid bond or fee (calculated to contribute towards the costs of running the tender process)[9];
- Sufficiently detailed financial, technical, and other information (provided against predefined data submission requirements) to allow the bids to be comparatively assessed; and
- A bid for the annual revenue for providing the transmission services for a twenty year period.

4.24. The option for bidders to make additional "variant" bids (i.e. bids that meet essential requirements but offer better value for money, for instance through technical innovation) and the means by which such bids could be evaluated could be part of this phase.

4.25. Evaluation criteria would be developed prior to the issue of ITTs in order that all bidders are treated equitably once solutions were received. It will be essential that the market has a clear understanding of the scope and performance requirements against which to bid. Tenders would be evaluated against the financial, legal and technical criteria set out in the ITT. We are currently considering whether these criteria and the weighting between them may vary between different competitions to reflect the priorities and preferences of developers.

4.26. Following the evaluation the bidders would be ranked in order of preference and post tender negotiations would take place with the bidder or bidders who have submitted the most advantageous bids with the intention of identifying a preferred bidder.

Best and Final Offer (BaFO)

4.27. Traditionally, a BaFO is designed to allow bidders one final opportunity to improve their bids before a preferred bidder is selected. Where a number of preferred bidders have been short listed following the evaluation of bids and post tender negotiations, this could be another possible step in the tender process.

Selection of preferred bidder and financial close

4.28. Once the preferred bidder had been selected, a final connection offer would be relayed (via the GBSO) to the generator. Once the generator had signed the offer, the Authority would need to scrutinise and decide whether to approve the revenue

[8] We are considering whether a licence application fee should be payable at each stage of the tender process rather than a lump sum at the ITT stage of the process.
[9] We are considering whether specific bid fees or bonds could be utilised as an alternative approach to funding the costs of running the tender process.

stream. The Authority would announce the successful bidder and the approved revenue stream, and issue the successful OFTO with its transmission licence upon payment of any relevant licence application fee.

4.29. Once the licence had been awarded, the OFTO would have to work with the developer to satisfy the "start up provisions" in its licence by the time the developer would be ready to generate and the OFTO would be ready to transmit electricity.

4.30. On an agreed date following construction being completed and signed off by an independent engineering audit, the remaining relevant licence conditions, including the right to the price controlled revenue stream and performance incentives, would be activated.

Associated Costs and Recovery

4.31. The developer of the offshore generation site would initially be concerned with site location and the route to an onshore connection, through the connection application process set out in Chapter 6. In some cases, it might be necessary to undertake environmental impact assessments and consultations with interested parties covering the offshore generation site and cable routes. These could be both time consuming and costly to undertake. Since this work might be a necessary prerequisite to securing an onshore connection it is important that it should be carried out effectively if desired project completion timescales (and the achievement of Government targets on renewable generation) are to be achieved.

4.32. We consider that there are potentially synergies from undertaking combined impact assessments and consultations for the generation site and cable routes. However, this raises issues of how the costs are recovered or apportioned. Since the requirements would ultimately be placed upon the generator requesting the offshore connection it might be appropriate that it should be remunerated by the OFTO for any transmission related works undertaken. Any remuneration would be contingent upon the offshore generator securing appropriate intellectual property rights and guarantees that could be transferred to the OFTO. Failure to do this might result in the OFTO undertaking additional unnecessary works.

Running the process

4.33. In March, Ofgem posed a question in its Scoping Document as to who should be responsible for overseeing the tender process. In our November consultation, we considered that a pre-condition of participating in the tender process would be that prospective OFTOs would be pre-licensed with non-exclusive offshore transmission licences and could then compete in the tender processes to bid a revenue stream for a pre-determined period. As a consequence, there was a wide scope for several parties to manage and run the tender process. We also noted in our November 2006 consultation that a key feature of a successful tender process is the need for impartial and independent decision making. The Government concluded in March that it would be inappropriate for the GBSO to run the process given that it is not fully independent of a potential OFTO and any potential conflict of interest could be

detrimental to the interests of consumers. Ofgem outlined in its March Scoping Document its initial thoughts that the tender assessment could be undertaken independent of the GBSO and noted that the process would ultimately need to enable the Authority to approve the regulatory income for the winning OFTO.

4.34. We have developed our thinking, taking account of responses to the March Scoping Document and views expressed at various industry workshops and seminars. As well as playing an essential role in the process by awarding OFTO licences and approving the regulatory income, the Authority has a key interest in ensuring that the tender process is managed in an efficient and effective manner so as to ensure the best outcome for all involved parties, including consumers. We anticipate therefore that a regime should be developed where the Authority is required to manage and give approval at the key stages in the tender process, including:

- Agreement to parties short listed to receive the ITT following prequalification;
- Approval of the ITT issued to those bidders (triggered by a generator signing an indicative connection offer) for award of an offshore transmission licence;
- Approval of anticipated expenditure and financial commitments;
- Agreement to a preferred bidder (following a review of any independent audit reports);
- Approval of a regulated revenue stream; and
- The award of an OFTO licence to the preferred bidder.

4.35. As mentioned above, with the Authority managing this type of process, we consider that there is no need for pre-licensing of OFTOs as any person which can meet the prequalification criteria could tender for the right to design, build, finance and maintain an offshore generator connection.

4.36. Important factors to be taken into account in determining who should undertake the tender process include:

- The need for independence and credibility;
- The necessary expertise, resources and funding; and
- The necessary mandate or vires to undertake all aspects of the process. [10]

[10] Appropriate arrangements would need to be put in place to ensure that the Authority could run an effective and efficient tender process, including arrangements for cost recovery.

4.37. The Government and offshore generation developers have expressed concerns that the GBSO is not sufficiently independent to run the tender process, and therefore the principal options appear to be either that Ofgem should manage this process, or that BERR and/or Ofgem appoints a third party to run the process.

4.38. Ofgem has an important role in facilitating an effective tender process and is ultimately responsible for the award of an offshore transmission licence and approval of an annual revenue stream. In the light of this, it would appear sensible that responsibility for the entire tender process should lie with Ofgem. We consider that the following features could present an appropriate approach. These are similar to those available to other regulators that perform tenders, such as Ofcom:

- A standing tender panel, formed from Executive and Non-executive Ofgem members, to assess the tenders at each key stage;
- A tender process and selection methodology consulted on in advance;
- A small internal support team to monitor and guide the tender process;
- Potential third party support to co-ordinate the tender process;
- The possible outsourcing of assessment reports required for short listing and preferred bidder selection; and
- The availability of judicial review of Ofgem determinations.

4.39. It is important that these responsibilities do not unduly impinge upon other areas of Ofgem's activities. It is therefore important that the tender process is sufficiently robust that the operational requirements upon Ofgem can be met in full with respect to funding of the necessary resources and expertise to run an efficient and effective process. It would therefore be necessary for arrangements to be put in place for the recovery of the costs of running the tender process in full from appropriate parties.

5. Transitional arrangements

Chapter summary

This chapter provides an overview of our proposals for how to treat offshore generators that are likely to be in a position to generate or be under construction at the time the offshore regime goes live.

Questions

Question 1: Do you agree with our proposals for the transitional arrangements as outlined in this chapter? In particular, we would welcome your views on:
- the pre-conditions for qualifying transitional projects;
- the tender process for transitional projects, and whether they capture the potential projects that will require adoption;
- the transfer of assets; and
- interaction with the enduring regime.

Question 2: Do you feel that there is any aspect of the transitional arrangements that we have not considered sufficiently?

Summary

5.1. In the Government Statement and Scoping Document in March, we set out our initial thinking on the key policy issues surrounding the treatment of offshore transmission assets where the offshore generator is already constructing or undertaking steps towards constructing the offshore transmission assets before the commencement of the new regulatory regime. This chapter builds upon the discussion in Chapter 2 and outlines our further thinking on these issues, having taken into account responses to the March Scoping Document and subsequent meetings with developers and potential OFTOs.

5.2. To facilitate further discussion and development of the transitional arrangements, we also provide in this chapter a high-level description of the main steps of the process under our proposed approach. Our key proposals are:

- That commencement of sections 90 and 91 of the Energy Act 2004, to enable the Secretary of State to direct modifications to licences and associated codes and agreements for the purposes of offshore transmission ('go-active'), would take place in October 2008;

- That commencement of section 92 of the Energy Act 2004, which inserts section 6C of the Electricity Act 1989, would occur sufficiently in advance to allow Ofgem to make regulations prescribing how the tender process is to be run before the first tender process takes place following the 'go-active' date;

- That commencement of sections 89 and 180 of the Energy Act, the latter of which will substitute the definition of "high voltage line" in section 64(1) of the Electricity Act 1989 with the result that relevant offshore lines are high voltage if they are of a nominal voltage of 132kV or more ('go-live'), would take place in October 2009;

- That projects which have reached full financial close, and have either completed construction or have construction contracts in place such that they can meet certain pre-conditions set out in this chapter by the 'go-active' date or 'go-live' date would be eligible for the transitional tender process;

- That projects eligible for the transitional tender process would receive comfort that the developer will be entitled to be paid at least seventy five per cent of Ofgem's ex ante estimate of the RAV or one hundred per cent of the efficient ex post RAV by the OFTO which adopts those assets;

- That projects which have commenced work to design assets but do not have construction contracts in place and will not have reached full financial close by the 'go-live' date would be tendered in accordance with the enduring tender process without a commitment on funding;

- The process for tender is expected to be similar to that set out in Chapter 4. The key differences are explained in this chapter;

- That, unlike the enduring framework, there would be an OFTO of last resort. This would be likely to be the offshore generator; and

- That assets would only transfer to the appointed OFTO post-construction, regardless of when the OFTO was appointed.

March 2007 Government Response key issues

5.3. In the March 2007 Government response to the November 2006 consultation document, the Government set out its proposals to address the concerns of developers that OFTOs would not be in place for their projects before the prohibition on operating assets of 132kV and above offshore without a transmission licence was commenced.

5.4. The Government proposed fixing an appropriate date for the start of the new regime to ensure there was sufficient time for the tender process to appoint an OFTO for the affected projects. The Government noted that the powers to make licence modifications (i.e. sections 90 and 91 of the Energy Act 2004) could be commenced before the definition of high voltage in section 64(1) Electricity Act 1989 is substituted by section 180 Energy Act 2004 with the result that offshore lines would be classed as high voltage if they were of a nominal voltage of 132kV or more.

5.5. The Government therefore proposed commencing sections 90 and 91 in October 2008 to enable the Secretary of State to make the modifications necessary to licences, codes and agreements for the purposes of offshore transmission.

5.6. However, the Government said that it would discuss further with offshore developers before proposing a date for the new definition of high voltage to be substituted.

5.7. Having held further discussions with developers and other interested parties, the Government is proposing that the date for 'go-active' should remain October 2008. In addition it is now proposing that the date for 'go-live' should be October 2009. As set out below the Government believes that this will provide a sufficient period for developers meeting the criteria for transitional projects to have comfort that relevant OFTOs will be appointed before the regime comes into effect.

5.8. As stated in the Government response, it is the Government's intention that the determined date of commencement will not have unintended consequences for any developer such that their only real option would be to cease operating upon commencement. BERR will therefore keep these proposed dates under review as the project to establish the new offshore transmission arrangements progresses.

March 2007 Ofgem Scoping Document key issues

5.9. The March Scoping Document sought views[11] on Ofgem's initial thinking on the following key transitional arrangement issues:

- Preconditions for offshore transmission assets to qualify for the transitional arrangements - Ofgem proposed that these should include financial commitments (including securing full unconditional financial close prior to the tender process), the developer holding a generation licence, environmental and planning consents and onshore connection offers being in place, and requirement for full disclosure of cost information;

- Criteria for selecting an adopter OFTO - Ofgem proposed that the selection process should be designed in a similar fashion as that for new projects under the enduring regime;

- Determination of the RAV - Ofgem's proposal was based on a guaranteed minimum level set at seventy five per cent of its ex ante estimation; and

- Technical compliance - Ofgem proposed to follow the precedents of treatment of non-compliances associated with existing assets, e.g. at vesting and/or the implementation of the British Electricity Trading and Transmission Arrangements (BETTA). In broad terms the intention was to avoid any material adverse impact of any non-compliance being borne by parties other than the relevant developers in terms of additional costs or reduced security of supply.

[11] Responses to the document can be viewed on Ofgem's website.

Pre-conditions

5.10. No major objections were raised in responses to the March Scoping Document, except for arguments for exemption from these preconditions for some early movers. One specific area in which queries were raised by certain developers concerns the requirement for full unconditional financial closure prior to the 'go-active' date. Some large utility developers would be unable to meet this requirement were they to finance their projects on balance-sheet. In such cases, we will consider whether other equivalent financial commitments, such as unconditional parent company support, would be appropriate to qualify for the transitional arrangements.

5.11. Another variation that developers raised was partial build, with multiple stage financial close. In such cases, it may be appropriate to set a threshold proportion of the total project value. Were the total financial commitment to be above that level, the remaining stages would be treated by default as part of the same project. Otherwise, the regulatory commitment would also be by separate stages. However, given that this may be a way in which generation developers might seek to gain additional regulatory commitments, we will analyse potential options in more detail.

Selection process

5.12. No specific comments were noted in the responses to the March Scoping Document. Therefore our further thinking has been on detailed design issues specific to the transitional arrangements, as covered in the high-level description in the next section.

RAV determination

5.13. A number of respondents to the March Scoping Document commented that the sventy five per cent ex ante estimate was too low. Alternative guaranteed levels proposed by respondents included one hundred per cent ex ante estimate and one hundred per cent ex post costs. Our objective remains to achieve an appropriate balance of incentives and risks. We believe that the alternatives proposed by the respondents to Ofgem's March Scoping Document would weaken incentives and transfer an undue amount of risk to consumers.

Technical compliance

5.14. Some respondents to the March Scoping Document raised concerns about the risk to the developers in terms of uncertain additional costs arising from technical requirements imposed after design and/or construction. We recognise that there is a degree of uncertainty for the developers now as technical rules for offshore transmission are still under development. However, we note that technical rules are defined in respect of the onshore point of connection in terms of the performance requirements expected of the generator and the service that will be provided by the onshore system. We also note that a number of offshore generators are already required (or aware of a need to) comply with the Grid Code as a condition of

connection to an onshore system. We would encourage developers to carry out early discussions with the GBSO and users of their offshore transmission assets, to identify the needs under the current rules, from the system and user perspectives. This should help them to reduce the risk of compliance issues under the new arrangements and to identify in a timely fashion the potential adverse impacts of any non-compliance and any feasible remedial actions. Any non compliance must be identified to Ofgem at the earliest possible opportunity.[12]

5.15. Some respondents also queried the proposed treatment of transitional offshore assets that may exceed the minimum technical rules, due to specific choice of the generators. As discussed in Chapter 3, we propose that the offshore generator would meet the cost of these enhancements in full. For example, incremental costs incurred in providing higher level of security than those under the GBSQSS or a costlier but speedier option for providing a connection in response to a request by the generator would be charged directly to the relevant generator outside the GB charging mechanism.

Proposals

5.16. Below we set out our developed proposals for transitional projects.

5.17. As for the enduring framework, a tender process would be run for transitional projects to appoint an OFTO. An offshore transmission licence would be awarded giving the OFTO the right to receive a regulated income for providing transmission services. In this case, the OFTO would only be financing the ongoing maintenance of the assets post construction. We intend that the selected OFTO would be granted a transmission licence by the proposed 'go-live' date.

5.18. As with the licences granted to OFTOs under the enduring process, these licences would contain certain “start up provisions”, the terms of which would need to be fulfilled by the OFTO before it was able to commence provision of transmission services. These "start up provisions" would need to be satisfied before the remaining conditions were activated. For example, the obligation to provide transmission services would only come into effect once construction had been completed and signed off by an independent engineer, Ofgem had approved the RAV and price controlled revenue stream, and the offshore transmission assets had been transferred from the developer to the OFTO. Nevertheless, there are some differences in the process for transitional projects from our proposals under the enduring framework. These are described in greater detail below.

5.19. A first tender for transitional projects process would be initiated following the 'go-active' date. At this point, a developer could seek the appointment of an OFTO

[12] See paragraph 7.10 of Offshore electricity transmission - second scoping document, Ofgem, March 2007

for its project. A second tender process for transitional projects would commence following the 'go-live' date.

Pre-conditions for comfort on funding

5.20. In the March Scoping Document, Ofgem set out that an offshore developer that met certain pre-conditions would be expected to receive comfort that the developer would be entitled to be paid the greater of either seventy five per cent of Ofgem's ex ante estimate of the capital cost of the project or the full efficient ex post view of the capital cost. This approach was generally welcomed by respondents, although there was some concern that projects that had not achieved financial close by the 'go-active' date would potentially be required to incur unnecessary duplicate costs from entering the enduring framework.

5.21. We have considered these issues further and propose several refinements to the scope of the transitional arrangements. Transitional projects that are able to satisfy the following pre-conditions by the 'go-active' date can apply to have an OFTO appointed under the transitional tender process. The developer would need to demonstrate that in respect of the offshore transmission assets:

- It had secured an onshore connection offer;
- It had obtained all necessary property rights (e.g. leases and licences) and all environmental and planning consents for the offshore transmission assets to be constructed and maintained);
- It had completed construction of, or entered into, all necessary construction contracts for the construction of the offshore transmission assets;
- It had reached full financial close (or there is evidence of an equivalent financial commitment, such as unconditional parent company support) for the construction of the offshore transmission assets; and
- It would need to provide its financial model and all other necessary financial and other data to Ofgem to enable the assessment of the efficient and economic cost of constructing the offshore transmission assets.

5.22. In the March Scoping Document, Ofgem suggested that it would be necessary for a developer to hold a generation licence. We recognise that some generators operating offshore may be licence exempt. We also consider it necessary that transmission assets be held in separate legal entities from the generator to facilitate compliance with ring-fencing obligations.

5.23. In the light of industry feedback, we recognise that there is a lead time (potentially twelve months) in selecting and appointing an OFTO. A key concern is that transitional projects that expect to reach full financial close and be undertaking steps towards constructing the offshore transmission assets between the 'go-active' and 'go-live' dates will not secure the appointment of an OFTO in a timely manner.

We propose therefore that a second tender process be commenced on the 'go-live' date for projects which were not sufficiently progressed by the 'go-active' date but can meet the conditions mentioned in paragraph 5.21 above by the 'go-live' date. The same level of comfort as to expected revenue would be provided by Ofgem.

5.24. Developers that could not meet the pre-conditions set out in paragraph 5.21 above by the 'go-active' date therefore would have two options. They could wait for the 'go-live' date to apply to be part of the second transitional tender process (provided they had met the pre-conditions by that date). Alternatively, they could choose to apply following the 'go-active' date for an OFTO to be appointed to design, build, finance and maintain transmission assets through the enduring tender process. This would mean that they would have an OFTO in place by the 'go-live' date but that the OFTO would take on the responsibility for the design and construction of the assets rather than adopt the assets once constructed by the developer.

5.25. If developers choose to use the enduring tender process for the appointment of an OFTO but they have undertaken some development work for the offshore transmission assets before the OFTO is appointed, such as design work, an OFTO would be expected to adopt such development work in the tender process and to pay efficiently incurred third party costs of any such work.

Pre-conditions for the tender process

5.26. In order to run an effective tender process for transitional projects it is important that the offshore developer can satisfy the following pre-conditions to facilitate the tender process. The pre-conditions include:

- That the developer has agreed to populate a data room with all relevant data necessary for a prospective OFTO to be able to bid effectively;
- That the developer has committed to transfer the offshore transmission assets to the selected OFTO under the terms set out in its request for the appointment of an OFTO. We would expect that the developer would set out specifically the terms for the transfer of assets so that they could be considered by prospective bidders;
- That the developer has provided the appropriate fee to cover some of the costs of initiating the tender process; and
- For transitional projects that will be completed sufficiently ahead of the 'go-active' or 'go-live' date (as appropriate), that the developer has provided to Ofgem an independent engineering audit report on functioning and performance.

5.27. Ofgem will only consider allowing developers who meet these preconditions to participate in the transitional tender process.

Expressions of Interest and prequalification

5.28. Expressions of interest could again be sought so that unsuitable bidders can be screened against pre-defined criteria. However, given that OFTOs will not be responsible for designing or constructing the transmission assets, the main criteria for assessment could be financial strength. We welcome views on whether this step is therefore necessary for the transitional tender process.

Invitation to Tender and evaluation of bids

5.29. As with the enduring regime, an appropriate party appointed by Ofgem (such as the GBSO or another party) will collate the necessary information in respect of each qualifying project to provide to potential bidders in the ITT. Nevertheless, transitional projects will be at a later stage of development and therefore additional information may also be required. We expect that the ITT would set out:

- The application form for a transmission licence;
- The proposed transmission licence conditions;
- Any proposed modification of conditions in the generation licence, where appropriate;
- The terms for the transfer of offshore transmission assets from the generator owner to the OFTO (i.e. the draft transfer agreement or transfer scheme);
- Details of how to access the generator's data room; and
- Ofgem's initial RAV assessment.

5.30. Again, the ITT would invite bidders to submit by a specified date certain technical, commercial, legal and financial documents and information. In this case, it would include the following:

- Its technical and commercial proposals for maintaining the offshore transmission assets, including any proposed subcontracts (e.g. operation and maintenance agreements);
- Its proposed financing structure and lenders or parent company commitment for payment of the RAV to the developer as well as to support its ongoing commitment to provide the transmission services (term sheets, loan facilities etc.);

- A statement of how it will meet the licence application criteria (as set out in the application regulations);
- A licence application fee[13] and possibly also a bid bond or fee (calculated to contribute towards the costs of running the tender process)[14];
- An agreement to the terms for transfer of the offshore transmission assets from the generator to the OFTO; and
- A bid for the annual revenue requirement of providing the transmission services for a twenty year period on the basis of the information provided.

5.31. Again, the tender would be evaluated against the financial, legal, and technical criteria set out in the ITT. Unlike the enduring regime, however, the criteria would not focus on design or construction as this would be undertaken by the developer and not the OFTO.

Best and Final Offer (BaFO)

5.32. As with the enduring regime, there may be cause for inviting the short listed bidders to submit a BaFO before a preferred bidder is selected.

Selection of preferred bidder and financial close

5.33. Ofgem would announce the preferred bidder together with an approved revenue stream which it could recover under its transmission licence.

5.34. The successful bidder would then be required to pay Ofgem any remaining licence application fee by the 'go-live' date. Ofgem would then award the transmission licence on the appropriate date.

5.35. As with the enduring tender process, the OFTO would then have to work with the developer to satisfy the “start up provisions” in its licence by the time the developer was ready to generate and had completed construction of the offshore transmission assets so that they can be transferred to the OFTO.

5.36. On an agreed date following construction being completed and signed off by an independent engineering audit and Ofgem having determined the final RAV, the following would occur:

[13] We are considering whether a licence application fee should be payable at each stage of the tender process rather than a lump sum at the ITT stage of the process.
[14] We are considering whether specific bid fees or bonds could be utilised as an alternative approach to funding the costs of running the tender process.

- The transfer of assets from the developer to the OFTO;
- The payment by the OFTO to the developer of the deemed efficient capital cost of the offshore transmission assets; and
- The remaining relevant licence conditions, including the right to the price controlled revenue stream (to cover the cost of financing and maintaining the offshore transmission assets) and performance incentives, would be activated.

Transfer of assets

5.37. The developer must agree to transfer the offshore transmission assets to the OFTO. The offshore transmission assets to be transferred would need to include the consents and licences required to own and maintain the assets as well as the physical assets and possibly the design and construction contracts. We are considering how a transfer of assets would best be effected.[15]

5.38. One area for consideration in determining the terms of a transfer of assets, is who should take design and construction risk. It could be argued that since the developer would be wholly responsible for the design and construction for the transitional projects, design and construction risk should stay with the generator owner (so that the OFTO is not bidding to take over benefit of warranties and defects liabilities under contracts such as the EPC contract). We would welcome views on this issue.

Audit reports

5.39. For projects that had not progressed sufficiently to be able to provide the independent audit report at the 'go-active' or 'go-live' date (as appropriate), then upon completion of construction, the developer would be obliged to procure independent functional and performance audit reports. Once these were provided, Ofgem would carry out a second assessment of the asset value (the ex post RAV). The final view of the RAV would be based on the higher value of seventy five per cent of the ex ante RAV and the full ex post view of the efficient asset cost.

OFTO of last resort

5.40. In the event that there is no expression of interest at the initial stage of the transitional tender process, we propose to run one further public invitation for new bidders to come forward. Where no bidders come forward to the second invitation to express interest, then we propose that the developer would be awarded an OFTO transmission licence. This is particularly important for those offshore generation

[15] Appropriate arrangements would need to be put in place to ensure that a transfer of assets could occur.

projects that may be completed before the 'go-live' date to ensure that they can operate legally offshore once 132kV lines are defined as high voltage lines.

5.41. It is important to ensure that the reasons for the lack of interest are understood fully and that consumers' interests are not undermined. We are considering whether it might be appropriate to introduce an efficiency incentive or other compensating mechanism where it can be shown that the lack of interest has arisen due to the decisions of the developer.

Link with the enduring regime

5.42. All projects which would be unable to satisfy the qualification criteria for the transitional tender process on the 'go-active' or 'go-live' date would fall into the enduring regime. In order to provide sufficient certainty to projects that do not satisfy the preconditions, but are sufficiently well progressed in their development by the 'go-active' date, we intend that the first enduring tender process would be undertaken as soon as possible after the 'go-active' date and the second process as soon as possible after the 'go-live' date.

6. Connection application process

Chapter summary

This chapter provides on overview of the steps that all parties would need to go through in order for an offshore generator to successfully get an offer for connection.

Questions

Question 1: Do you agree with our proposals for the connection application process as outlined in this chapter? In particular, we would welcome your views on:
- the pre-application process;
- the indicative offer process (stage 1);
- the final offer process (stage 2); and
- the roles of the generator, the GBSO, and the OFTO in this process.

Question 2: Do you feel that there is any aspect of the connection application process that we have not considered sufficiently?

Question 3: We outline two options for annual tender application windows. Which of the following options do you think are appropriate?
- Option 1: A mandatory annual tender application window, to be incorporated into the offshore connection application and tender process; or
- Option 2: To rule out an annual tender application window and allow generators to realise cooperation benefits independently and optionally.

Summary

6.1. Ofgem outlined in its March Scoping Document an overview of an approach for accommodating requests for connection from offshore generators. This chapter outlines our proposals. The key proposals are:

- That existing processes for dealing with connection applications should be adapted and that there is no need for a unique process to be developed;
- That the offshore generator will remain the party responsible for signing the connection agreement with the GBSO;
- That a pre-application stage should be introduced to encourage coordination amongst generators and ensure good quality bids can be made by prospective OFTOs; and
- There is scope for a tender application window to ensure tenders are undertaken efficiently and to further encourage coordination amongst offshore generators.

Proposals

6.2. There are certain features associated with the connection of offshore generation that differ from the connection of onshore generators. These are:

- The requirement to appoint a new transmission licensee (an OFTO) to design, build, finance, and maintain a new transmission link to an onshore network;
- The use of a tender process to determine who this licensee should be;
- The specific characteristics of the offshore environment, which may make pre-works a necessity; and
- Consequent to the above, the reduced ability of the GBSO to produce a firm offer for connection within the timescales normally required for onshore connection applications.

6.3. In its current role as GBSO onshore, NGET has an obligation to make offers to parties that request connection to, and use of, the onshore electricity transmission system. It is required by its transmission licence to provide an offer of terms for connection to and use of the transmission system within three months of receipt of an application in accordance with the Connection and Use of System Code (CUSC).

6.4. We set out below proposals that outline how existing processes may be adapted to accommodate connection applications from offshore generators. We also set out proposals for a pre-application stage to encourage coordination amongst offshore generators. We set out further options for tender application windows to supplement the pre-application stage and provide further encouragement for coordination.

Adapting existing processes

6.5. We do not consider that the features associated with the connection of offshore transmission alter or affect NGET's ability to discharge its obligation to make offers to parties that request a connection and use of system agreement.

6.6. We propose that the arrangements which exist today should form the basis of the offshore connection application process, meaning minimal changes will be required. We note that requests by generators to the GBSO for connections to the transmission network in remote areas (e.g. Scottish Islands) have been accommodated within the existing framework by adopting a two-stage approach to the preparation of an initial indicative and final connection offer. We therefore consider this approach to be the most appropriate way forward and do not believe that there is a need to develop a new set of arrangements for applications for offshore generators.

6.7. The two stages would consist of a first stage of an indicative offer provided within three months (in parallel with the existing onshore process) which takes

account of onshore reinforcements, a desktop exercise to identify required further offshore works and cost estimates of this work from affected parties, and a second stage of a firm offer upon completion of the tender process and appointment of the preferred OFTO. These are outlined in more detail in the text box below.

Stage 1:

The formal transmission connection process would be initiated by the submission of a 'competent' application by an offshore generator to the GBSO. The OFTO tender process would be triggered at the same time by the issue of the Expression of Interest document. The stage would end with the production (by the GBSO) of an initial indicative connection offer to the applicant within a three month timescale. This would include an indicative assessment of the necessary contingent transmission reinforcement works onshore (based on expected point(s) of connection), the high level offshore connection design(s) and the Advanced Service Works (ASW) required to provide detail to the available design option(s).

This information would feed into the tender process and would be used by prospective OFTOs in the development of a bid. Progression to Stage 2 would be dependent on the generator signing the indicative offer and providing relevant security.

Stage 2:

Following the submission and evaluation of OFTO tenders, a preferred "winning" bidder or, possibly, a limited number of preferred bidders would be invited for further negotiation in the production of a final offer. The preferred OFTO would liaise with the GBSO and offshore generator to develop a final offshore transmission connection design relevant to the application and the consequential changes to the onshore connection design. The GBSO and OFTO would proceed with the connection application to closure. This would involve the production of a final connection offer to be sent to the generator for agreement and sign-off.

In order to finalise the OFTO tender and selection, it may be necessary to coordinate additional work e.g. a single sub-sea survey for short listed bidders (based on expense and the need for detailed design prior to the OFTO appointment).

6.8. In cases where the design of the offshore transmission network requires a connection to an onshore distribution network, the GBSO could ask one or more distribution licensees for indicative information and/or to offer terms for connection to and use of the distribution system. The terms would be offered to the GBSO rather than the generator. This issue is covered in more detail in Chapter 7.

6.9. If the generator wished to proceed on the basis of the firm and final offer it might be contractually obliged to secure the cost of any of the works being carried out to facilitate the connection. This security (currently 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.

6.10. We propose that the existing structure of connection application fees should be adapted to ensure the generator pays a fee that reflects the cost of the connection works and tender activities it causes, through a staged process, ramping-up the level of commitment as the application progresses. Staged payments would secure works as required (e.g. initial desk top surveys, followed later by payments for dealing with the tender). A form of user commitment (currently something akin to Final Sums, but in future mapped to the user commitment model at the time) is likely to be required to cover the period between the indicative and final offers.

Pre-application process

6.11. We consider that to facilitate efficient connection applications and ensure opportunities for coordination are realised, there may be a need to develop a "pre-application" process. It is in the interest of generators to approach the GBSO to discuss their high level connection designs prior to the submission of a formal connection application. This would enable all parties to provide high-level advice to the generator concerning the general feasibility of the proposed application and also provide a guide as to the costs it might incur in the processing of its application.

6.12. The purpose of this process would be to maximise the amount of available information associated with a proposed connection as early as possible. It would also establish the range of feasible connection options which could be included in the "competent" application submitted to the GBSO. This would also enable the GBSO to identify zones which could realistically be excluded as possible landing sites due to geographical, planning or onshore network constraints.[16] We propose that the GBSO should publish relevant information relating to potential offshore connections as part of its Seven Year Statement (SYS) or in an equivalent document.

6.13. We propose that the scope, content and timescales associated with the production of a "pre-application" feasibility study should include:

- A high level assessment of the onshore connection site possibilities around the coast of GB. This would identify areas that could realistically be excluded as possible landing sites due to geographical, planning consent or onshore network constraints. This information would be made publicly available through the SYS (or some equivalent);

[16] Note: 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

- Identification of an onshore connection corridor associated with each of the 3 Crown Estate Strategic Environmental Areas (SEA); and

- Production of a site evaluation matrix to allow a preferred onshore connection site to be quickly identified on receipt of an application and to allow parties to assess possible line connection solutions within the corridor for a particular application.

6.14. We believe that these proposals should allow the maximum amount of information to be fed into the OFTO tender process at the earliest stage and allow an initial indicative connection offer to be made within three months.

Tender application windows

6.15. In the March Scoping Document, Ofgem proposed an annual connection application window to facilitate coordination. Subsequent feedback from industry has been mixed, with some arguing that there is little benefit to connection application windows, since it would limit the time at which generators could apply for connection and that in any case coordination would occur naturally where there were economic benefits to so doing. Some generators appear to believe that the obvious scale benefits from cooperating at neighbouring locations will cause them to realise such opportunities. However, ensuring coordination remains a major objective for many other parties for both environmental and economic reasons.

6.16. We have considered this issue further in the light of industry feedback. We now propose that rather than limiting the time at which offshore generators could apply for connection, instead generators could make a competent application at any time of the year in common with onshore generators. However, tenders would take place at a fixed point in the year (the tender application window) and in order to qualify, generators must have signed their indicative offer of connection by a certain date to participate in that year's round of tenders.

6.17. Alternatively, we could simply allow tenders to take place independently of each other rather than in rounds and leave it to the market to achieve coordination. We welcome views on which option respondents prefer.

7. Connection via distribution networks

Chapter summary

This chapter addresses the particular issues that would arise where an offshore transmission network connected to an onshore distribution (rather than onshore transmission) network.

Questions

Question 1: Do you agree with our proposals for connection via distribution networks as outlined in this chapter? In particular, we would welcome your views on:
- comparable types of connection;
- charging arrangements; and
- connection application processes.

Question 2: Do you feel that there is any aspect of connection via distribution networks that we have not considered sufficiently?

Summary

7.1. Ofgem outlined in its March Scoping Document an overview of an approach for addressing issues associated with an offshore generator seeking a connection to an onshore distribution network. This chapter outlines our proposals. The key proposals are to:

- Extend existing distribution licensee codes and agreements to define contractual relationships; and
- Treat embedded transmission connections in a way that is consistent with distribution connections for large power stations (with the overlay of the GBSO's coordination role).

Proposals

7.2. Currently, 132kV connections between an offshore generator and an onshore distribution system are classed as low voltage lines. The Government introduced a class exemption that is applicable to this type of offshore distribution system in April 2007. Onshore distribution licensees have been treating offshore generators seeking connections to the onshore distribution system as distributed generator connections.

7.3. When the new offshore transmission arrangements are introduced[17], 132kV circuits between offshore generators and onshore distribution systems will be classed as high voltage lines, requiring the owner to hold a transmission licence. One consequence of this change in classification will be to introduce a new type of distribution system connection ('embedded transmission connection'). There is a need to define arrangements for this new type of connection and the new type of interface between transmission and distribution licensees.

7.4. In its March Scoping Document, Ofgem proposed that offshore generators should contract directly with the GBSO for connection to and use of the transmission system and that the GBSO should apply to the relevant Distribution Network Operator (DNO) for connection to and use of the distribution system based on the requirements of the generator's connection application. The GBSO would therefore contract with the DNO if the offshore generator accepted the associated transmission connection agreement (initiated from an offshore generator submitting a connection application to the GBSO).

7.5. We have subsequently established that either of the CUSC/Grid Code and Distribution Connection and Use of System Agreement (DCUSA)/Distribution Code frameworks could be extended to define the new arrangements. However, as the DNO will be a service provider to the GBSO, we consider that it is more appropriate to define contractual arrangements in distribution licensee codes and agreements.

7.6. We previously noted that there is not a direct equivalent in the onshore arrangements to an embedded transmission connection. We have assessed in more detail the embedded transmission connection service that a distribution licensee would be required to offer.

Type of connection

7.7. We have identified three types of connection under the onshore arrangements that could be used as possible comparators for embedded transmission:

- Connections between onshore transmission and onshore distribution systems;
- Generator connections to the onshore transmission system; and
- Distribution connected large power stations.

7.8. Based on our comparison of embedded transmission connections with each of the three possible comparators, we consider that embedded transmission connections will be comparable with distribution connected large power stations. We

[17] 132kV offshore circuits will be considered to be "high voltage" once section 180 of the Energy Act is commenced. The distribution system in England and Wales is defined at 132kV and below.

therefore consider that arrangements for embedded transmission connections should be consistent with arrangements for distribution connected large power stations and require:

- Distribution licensees to provide information about the distribution system and budget cost information when requested by the GBSO;
- Distribution licensees to assess connection requests made by the GBSO in respect of offshore transmission networks and offer terms for distribution system connection;
- Distribution licensees to offer to enter into an agreement with the GBSO for connection to and use of the distribution system if the offshore generator accepts the offer made to it by the GBSO;
- Distribution licensees to recover costs from the GBSO for the provision of information relating to the distribution system and any distribution system connection in a way that is consistent with other entry points requested by customers (i.e. distribution connected generation);
- Distribution licensees to take account of any benefits to the distribution system as a consequence of the requested connection, in calculating charges; and
- The offshore generator to contract with the GBSO for connection to and use of the transmission system. The GBSO will reflect the charges for connection to and use of the distribution system in its charges to the offshore generator.

7.9. We acknowledge that the DCUSA does not currently define arrangements for distribution connections. We note that distribution connected generators negotiate bilateral connection and/or use of system agreements with the distribution licensee. As new arrangements are needed for embedded transmission, we consider that there would be merit in developing a standard form of connection and use of system agreement. We further note that such a form of agreement could be contained within the DCUSA framework.

Charging arrangements

7.10. We note that in April 2005, distribution licensees were required to implement changes to the distribution connection charging arrangements to introduce "shallowish" connection charges. We note that under these arrangements a distribution licensee will include in a generator's connection charge:

- The full costs of the assets required to connect the new power station to the existing distribution system;

- A proportion of the costs[18] of distribution system works that are required to accommodate the new connection; and

- The full costs of any assets required for the new connection that are not required to maintain distribution system compliance with the distribution system planning standard (P2/6).

7.11. Under the current distribution connection charging arrangements, an onshore generator connecting to a distribution system would also be required to pay ongoing distribution use of system charges.

7.12. We note that there is flexibility within the distribution connection charging arrangements.

Connection process

7.13. We have compared the current onshore distribution connection process with the proposed offshore transmission connection application model. We acknowledge that the GBSO and distribution licensees are allowed up to three months to offer terms for connection. We also acknowledge that the GBSO and distribution licensees are prevented by licence from unduly discriminating between customers. We note that the GBSO has expressed concerns that it will be prevented from offering terms to an offshore generator within three months if it needs to rely on existing distribution licence obligations which allow 3 months for offer of terms for connection to and use of the distribution system.

7.14. We also note that the Electricity Act duties in respect of "economic and efficient system" relate only to transmission system for transmission licensees and distribution systems for distribution licensees. We are considering if the obligations within the current framework are sufficient to ensure that the overall, most economic connection option for an offshore generator is identified. We will assess the need for additional obligations on transmission and distribution licensees to work jointly in respect of connection offers for offshore generators.

[18] Calculated using defined apportionment rules.

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 transmission compensation.

Questions

Question 1: Do you agree with our proposals for charging, access and compensation as outlined in this chapter? In particular, we would welcome your views on:
- the development of charging arrangements;
- access products; and
- compensation proposals, particularly whether there should be a penalty only regime in place for the OFTO.

Question 2: Do you feel that there are any aspects of charging, access and compensation that we have not considered sufficiently?

Summary

8.1. Ofgem outlined in its March Scoping Document an overview of what it viewed as the key policy issues for charging, access and compensation. Having received responses to that consultation and undertaken further work with industry, this chapter outlines our proposals.

8.2. The key proposals for charging are:

- NGET, as onshore GBSO and offshore GBSO designate, will develop offshore charging arrangements, using the current GB charging methodology as a basis for developing offshore arrangements; and
- The development of offshore charging arrangements should not constrain the ongoing development of the onshore market (e.g. Scottish Islands).

8.3. The key proposals for access are:

- The existing access product, Transmission Entry Capacity (TEC), will be adapted for offshore; and
- Any further access products that are required to reflect features of intermittent generation will be progressed outside of the project through existing industry change mechanisms as these are not offshore-specific.

8.4. The key proposals for compensation are:

- Compensation arrangements will be aligned with the access product and level of infrastructure available, using the principles of cost-reflectivity. Changes from the onshore arrangements will be minimal; and
- A penalty payment is proposed to be included in the offshore regime in order to incentivise offshore TOs to maximise availability of offshore transmission networks for use by offshore generators.

Charging

Proposals

8.5. The key proposal for the development of an offshore charging regime is that National Grid, as onshore GBSO and offshore GBSO designate, will develop offshore charging arrangements, using the current GB charging methodology as a basis for developing offshore arrangements.

8.6. We consider NGET to be the most appropriate party to develop open and non-discriminatory charging methodologies that apply to the connection/use of the resultant GB transmission system and the proposed connection of generation in offshore waters to the onshore grid.

8.7. We will be looking to NGET to incorporate developments in policy as they occur to the various contractual documents that underpin the way in which users are charged for using the transmission system (i.e. CUSC and the Balancing and Settlement Code (BSC)). The development of offshore charging arrangements should not constrain the ongoing development of the onshore market (e.g. Scottish Islands). This work may have interactions (but will probably not depend on) ongoing work developing the offshore security standard and offshore transmission access arrangements.

8.8. Agreement has been reached with NGET that the onshore licence based approach is the approach we feel will best deliver appropriate charging arrangements for offshore transmission within the available timescales.

8.9. We have formally approached NGET with high-level instructions (follow/extend the current methodologies) to be used in the development and establishment of extended charging methodologies that apply to those wishing to connect to and use the offshore transmission systems. NGET (as offshore GBSO designate) has accepted to take this forward and develop appropriate methodologies. This follows the approach currently specified in the onshore transmission licence and therefore incorporates industry input and consultation at important stages. The final proposal would then be submitted for decision by the Authority under the existing licence processes.

8.10. NGET will therefore continue to progress the development of an offshore charging regime by applying the same primary objectives (set out in Condition C5 of the transmission licence) as they are onshore, namely that:

- Compliance with the Use of System Charging Methodology facilitates effective competition in the generation and supply of electricity and (so far is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;
- Compliance with the Use of System Charging Methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and in accordance with the STC) incurred by the transmission licensees in their transmission businesses: and
- So far as is consistent with the above, the Use of System Charging Methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission business.

8.11. Importantly, we feel the above approach also gives stakeholders sufficient opportunity to have input into the process through the Transmission Charging Methodology Forum (TCMF) and the Charging Issues Standing Group (CISG).

8.12. NGET has recently issued a pre-consultation on the extension to the GB TNUoS methodology offshore. Specific development and implementation timescales will be the responsibility of NGET.

Recent developments

8.13. Discussions held at the External Communication Session on 24 April 2007 and at the various workshops have demonstrated broad consensus with the above opinion. NGET also indicated their support for the above process and their willingness to initiate this process as soon as practicable.

8.14. Importantly, NGET supported the use of regular fora, such as the TCMF, as a suitable mechanism to gain consensus on the appropriate charging methodology.

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

- Charges based on the value of the assets needed for an individual user to connect;

- Charges related to the cost of NGET balancing generation and demand and maintaining quality and security of supply in real time (known as Balancing Services Use of System charges (BSUoS)); and

- Charges related to the cost of providing the transmission infrastructure (TNUoS).

8.16. A request for clarity was made at the External Communication Session on 24 April 2007 regarding the operation and application of the GB TNUoS charging methodology offshore. To address these concerns NGET has produced an explanatory note and provided worked examples, reproduced in Appendix 4.

8.17. NGET is responsible for progressing and consulting on the detail of the extended offshore charging regime. Stakeholders should provide input to the process through the TCMF and CISG.

Access

Proposals

8.18. We consider that the offshore access product should take account of the fact that the minimum security standard offshore would not require circuit redundancy in the design of offshore transmission connections and the fact that a single circuit outage will restrict the output of the offshore generator. Onshore, single circuit connections are only offered when specifically requested by a customer (i.e. customer chooses to accept the risk of a single circuit connection).

8.19. The discussion on the range of access products available 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. These will continue to be taken forward through appropriate governance fora.

8.20. Given that the benefits of any new offshore access products may also apply to onshore generators, we consider that changes should be progressed via industry parties developing and proposing amendments to the CUSC. We need to ensure that proposals for offshore access products do not unduly discriminate.

8.21. NGET is chairing a Transmission Access Standing Group (TASG) under the CUSC governance arrangements, and NGET proposes to integrate offshore access discussions into this forum. This work may have interactions (but will probably not depend on) ongoing work developing the offshore security standard and offshore transmission price control arrangements.

8.22. 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.

Recent developments

8.23. An industry meeting was recently held to discuss a proposal that offshore generators may be expected to benefit from an access product similar to TEC. The meeting also discussed the design characteristics and access expectations of offshore transmission connections to be used in the development of a TEC-based access product and whether an alternative product is desirable.

8.24. This discussion was suggested by NGET as primarily an information gathering mechanism to inform parties of the pertinent offshore issues independently of the discussions of the onshore governance forums, which are strictly defined in relation to the applicable CUSC objectives to the onshore system.

8.25. The following points were presented:

- The primary access product is TEC which allows export to the maximum level (MW) at a specified location. A generator will decide the maximum capacity level on which TEC is based, normally the installed capacity of the transmission connection;
- The access arrangements onshore are based on the philosophy that a generator will connect to a "secure" transmission system. Circuit redundancy is a minimum requirement of a "secure" system and is defined in the GBSQSS that apply to the connection of generation onshore;
- The decision that the offshore standard should be included in the GBSQSS document means that circuit redundancy will not be required for GBSQSS compliance offshore (where the customer has not requested a design variation to build more than the minimum security requirements);
- Offshore generators acknowledged that, generally, generators that opt for less firm connections are required to enter into agreements with the GBSO that define transmission system conditions where compensation will not be paid to the generator;
- Offshore generators accepted the consequence that output from an offshore generator may be constrained by first circuit outage conditions on the transmission system if the offshore connection is built to the minimum offshore security standard;
- It was acknowledged that the "no redundancy" conclusion for offshore does not mean a single circuit connection design as the technology is not available for that. Instead, the decision on cables numbers will be based on the export rating of cables necessary to export the maximum installed capacity. A single circuit outage will therefore not completely reduce access to zero;
- Potential offshore developers noted that TEC is the only existing and viable product available and there was broad agreement that TEC should be applicable for offshore access; and

- Offshore parties welcomed the possibility of establishing an incentive regime based on agreed reliability and availability parameters for these offshore transmission assets. It was accepted that the detail of such arrangements would be progressed through discussions on the design of the regulatory regime.

8.26. A general consensus was reached that offshore generators supported the application of the available TEC-based products offshore. This support was based on:

- The understanding that TEC is the only viable product currently available. It was noted that while alternatives to the TEC product(s)[19] have been proposed none had successfully been implemented to date. There was acceptance that TEC should be applicable for offshore access and if other products are also required the industry can propose alternative products through CUSC governance;

- Generators' acceptance of the principles and consequences of the proposed compensation arrangements offshore;

- The expectation of offshore generators to apply for a TEC equivalent to their maximum installed capacity based on a natural incentive for a renewable generator to seek to run all of the time because of access to renewable obligation certificates; and

- The anticipated development of appropriate incentive arrangements to operate offshore transmission assets to agreed reliability and availability parameters to address concerns that the GBSO may not have adequate incentives to effect repairs promptly.

8.27. Specific development and implementation timescales will be the responsibility of the NGET in its role as owner of the CUSC.

Compensation

Proposals

8.28. Transmission licensees are required to develop, operate and maintain the transmission system in accordance with the GBSQSS. Onshore, circuit redundancy is the minimum security requirement defined in the GBSQSS.

8.29. NGET contracts with generators for connection to and/or use of the transmission system. Contractual agreements define the volume and nature of rights that generators have to access the transmission system. The primary access

[19] Short term variations to TEC products have been implemented.

product offered under CUSC is TEC. TEC limits the maximum level that a generator may export onto the transmission system on a power station basis.

8.30. The TNUoS charge that a generator pays to NGET is based on the TEC in the bilateral agreement. The table below summarises an onshore generator's entitlement to compensation under the CUSC arrangements based on connection type.

Onshore Connection Arrangement	Entitlement to Compensation from NGET
Firm connection – generator connection is deemed to be firm if there is circuit redundancy (at least to the level specified in the GBSQSS)	Yes, when transmission system is unavailable.
Customer choice connection – generators can choose a lower level of security	Not in all cases – restriction in entitlement to compensation (i.e. transmission system outage conditions where compensation will not be paid) are contractually agreed between the generator and NGET.
Distribution connection with contractual agreement for use of the transmission system	Yes, when transmission system is unavailable (unless customer choice applies). Compensation is not paid if generator output is constrained by distribution system availability.

8.31. We are of the view that there is not an explicit link between the transmission system complying with the criteria set out in the GBSQSS and the standard access product offered by NGET in the CUSC. We also note that SQSS compliance was not referenced in the development work for the CUSC changes[20] that introduced and developed the TEC product. We consider that NGET offers financially firm access products to generators because of the level of circuit redundancy provided onshore which is a direct consequence of the transmission licensees' obligations to comply with the GBSQSS.

8.32. In general, generators whose output is constrained by first circuit outage conditions on the transmission system do not receive compensation under the current onshore arrangements.

[20] CAP043 and CAP048.

8.33. The minimum security standard for offshore transmission networks will not require circuit redundancy. Therefore output from an offshore generator may be constrained by first circuit outage conditions on the transmission system.

8.34. We consider that the principle that applies to the onshore compensation arrangements defined in the CUSC (compensation is not payable for constraints from a first circuit outage condition) should apply offshore. [21] This view informed Ofgem's position set out in its March Scoping Document.

8.35. Compensation arrangements would be aligned with the access product and level of infrastructure available, using the principles of cost-reflectivity. Changes from the onshore arrangements would be minimal.

8.36. While we do not propose to support arrangements that are misaligned with the level of infrastructure provided (since to do so could expose consumers to significant and unjustifiable additional costs) arrangements do not preclude a generator from choosing to build a more secure connection, gaining firmer access and negotiating a compensation arrangement with the GBSO under the existing bilateral commercial framework.

8.37. We propose that a penalty payment should be included in the offshore regime in order to incentivise OFTOs to maximise availability of offshore transmission networks for use by offshore generators. These incentives can be generally described as “asset condition” and relate to pre-emptive action against unavailability of assets rather than unavailability as the result of lack of redundancy. It will be important that incentives operate effectively for either a generator-affiliate or another party owning the offshore transmission assets, and also that such incentives have an appropriate and proportionate impact on the OFTO. It might be advantageous, for example, to introduce symmetrical incentives which also reward the OFTO for out performance. We envisage that financial penalties on the OFTO might be passed back to the generator as discussed in Chapter 3. Views are welcomed on this issue.

8.38. We intend to consider options for transmission licensee incentives which include:

- Specifying targets for offshore transmission network availability;
- Imposing penalties on the offshore TO and/or GBSO if that target is not achieved; and
- Providing some mechanism for payment to be made to an offshore generator if the target availability is not achieved.

[21] It is important to note however, that the offshore generator will still be paid in the normal way for constraints arising onshore, i.e. for these purposes he would be treated as a “generator on the beach.”

9. Technical rules

Chapter summary

This chapter explains some of the changes required to certain industry codes to reflect the technical aspects of offshore electricity transmission.

Questions

Question 1: Do you agree with our proposals for technical rules as outlined in this chapter? In particular, we would welcome your views on:
- security standards; and
- the recommendations for developing technical rules.

Question 2: Do you feel that there is any aspect of technical rules that we have not considered sufficiently?

Summary

9.1. Ofgem outlined in its March Scoping Document an approach for incorporating the appropriate technical rules for offshore transmission into existing onshore arrangements. Having subsequently undertaken a considerable amount of work with industry since publication of that document and a consultation on an appropriate security standard for offshore transmission, this chapter outlines our proposals.

9.2. The key proposals for the offshore security standard are to:

- Introduce a new section to the GBSQSS that defines connection criteria for offshore transmission networks in planning and operational timescales;
- Develop the basis for the offshore security standard for wind generation connections to define the interface between the onshore and offshore generation connection criteria; and
- Develop proposals for an offshore security standard for offshore transmission connections to offshore generators fuelled by gas.

9.3. The key proposals for technical rules in the industry codes are to:

- Accept the majority of recommendations from the Grid Code sub group subject to:
    - Findings of the assessment of the consequential impacts of the new classes of offshore generator recommended by the Grid Code sub group;
    - Our investigation of the options available to minimise impact of differences in offshore and onshore generator reactive power capability requirements; and

  - Consultation with the Health and Safety Executive (HSE) about the Grid Code sub group's recommendation relating to safety coordination arrangements for offshore;

- Establish an industry group to consider the scope of the OFTO role, to review the relevance of STC Sections C and D offshore and to consider if there is a need to define additional technical standards for offshore transmission networks; and

- Review existing technical rules in other industry codes and assess if they are applicable offshore and if not, to initiate work to develop change proposals.

Proposals

9.4. The scope of this work area relates to technical rules that are defined within the regulatory framework. We have previously set out the need to assess if the existing framework is applicable offshore and if existing arrangements are not appropriate, to develop new technical rules for offshore transmission networks and parties who will connect to those networks.

9.5. We have assessed the existing framework and note that technical rules are defined in a number of industry codes and standards. We will be assessing in conjunction with the code owners the requirement for changes to the CUSC, BSC (for metering) and the Distribution Code. This chapter outlines the progress made assessing the requirement for changes to:

- GBSQSS;

- Grid Code; and

- STC.

GBSQSS

9.6. We consulted in December 2006 on an industry proposal for an offshore security standard that could be incorporated in the GBSQSS for transmission connections to offshore wind generation stations. The Government response in April 2007 confirmed that it was minded to accept the majority of the proposal, with some specific exceptions.

9.7. We have asked NGET to carry out GBSQSS drafting work. Other owners of the GBSQSS have agreed to NGET carrying out the drafting work and to a role in reviewing the draft text.

9.8. We have agreed with NGET that further analysis work is needed to provide information for the GBSQSS drafting work. The additional analysis work is needed to:

- Inform the definition of the interface between the offshore and onshore generation connection criteria within the GBSQSS;
- Assess if the recommended minimum security requirement for connections to offshore generators is appropriate for a connection to an offshore generator which, onshore has an overhead line section;
- Assess security requirements for an offshore transmission network providing connections to offshore generators fuelled by gas; and
- Assess if the voltage step change limits defined in the current GBSQSS[22] are applicable offshore and if not to identify appropriate limits for the offshore connection point.

Grid Code

9.9. In its March Scoping Document Ofgem noted that an industry group (the 'Grid Code sub group') had been established to identify changes that might be required to the Grid Code to accommodate the new offshore transmission arrangements. The Grid code sub group has now provided two reports[23] setting its recommendations for the extension of the Grid Code.

9.10. The Grid Code sub group was established in January 2007. Chaired by NGET, with relevant industry, Ofgem and Government representatives, it met four times over the course of three months. The Grid Code sub group also established a separate safety working group to carry out a review of Grid Code OC8. The Grid code sub group delivered two reports which included a series of recommendations in May 2007.

9.11. We have assessed the recommendations made by the Grid Code sub group and note the view that:

- The majority of Grid Code requirements are applicable offshore and could be extended by minor Grid Code drafting changes;
- There is a need to introduce new offshore classes of generator within the Grid Code;
- There is a need to create a new Offshore Power Park Module class of Balancing Mechanism Unit;

[22] GBSQSS Section 6.
[23] Recommendations for the Application of Grid Code Safety Co-ordination to Offshore Electricity Transmission and Recommendations for the application of Grid Code technical requirements to Offshore Electricity Transmission Networks can be found at www.ofgem.gov.uk

- The onshore generator capability requirements for reactive power and voltage control are not appropriate for offshore generators;

- The onshore generator capability requirements for fault ride through are appropriate for offshore generators. However a generic fault ride through requirement defined at the offshore grid entry point based on manufacturer data about generator plant capability should be developed. Offshore generators should be able to choose to demonstrate compliance with either definition of fault ride through capability;

- Additional obligations on the offshore transmission owner would be required to enable an offshore generator connected via a DC offshore transmission connection to provide frequency response services;

- Arrangements for safety coordination offshore should align with the section of OC8 which applies to the onshore network to which the offshore transmission network connects; and

- There should be a single safety coordinator that coordinates requirements of all offshore parties (e.g. offshore transmission and offshore generator) for each connection point with an onshore system.

9.12. We acknowledge the Grid Code sub group's conclusion that with minor drafting changes, the following sections of the Grid Code could be extended to apply offshore:

- Glossary and Definitions;

- Planning Code;

- Data Registration Code;

- Operating Codes (1,2,5,6,7,9,10,11 and 12); and

- Balancing Codes (1, 2 and 3).

9.13. We have reviewed the proposal to introduce new classes of offshore generator to the Grid Code which would require offshore generators of 10MW or above to comply with the generating plant performance requirements defined in the Grid Code Connection Conditions. We have also sought additional information from NGET about the justification for a 10MW threshold for Offshore Large Power Stations. We note that a 10MW threshold was considered appropriate for generator connections to an offshore transmission network because:

- The GBSO will require offshore generators to have performance capabilities to allow it to operate the offshore transmission network;

- It mitigates the risk of perverse incentives to divide a large wind farm project into a number of smaller projects; and

- Defining a de-minimis level would better facilitate development of new offshore generation technologies.

9.14. We note that under the current Grid Code, obligations on Large Power Stations are considerably more onerous than those for Small Power Stations. We also note that generators are required to have a direct contractual relationship with the GBSO in respect of Large Power Stations that are distribution connected. We acknowledge that the current Grid Code requirements for directly connected Small Power Stations have not been tested as there are currently no generators of this class.

9.15. We note that the Grid Code sub group developed its recommendation from an assessment of arrangements needed to incorporate new offshore transmission arrangements. However we note that:

- The Grid Code sub group's recommendation did not exclude distribution connected offshore generators;
- The existing approach under the Grid Code is that the definitions of Small, Medium and Large Power Station do not distinguish between transmission and distribution connected generation;
- Our general principle is that onshore arrangements should apply offshore unless a different approach is justified;
- NGET has explained that operationally, transmission and distribution connected Large Power Stations are treated consistently; and
- Defining different size thresholds for transmission and distribution connected offshore generation could create perverse incentives.

9.16. We consider that any new classes for offshore generators should follow the onshore model as far as possible. However we are concerned that the Grid Code sub group did not fully assess the consequential impact of its recommendation. In particular, we are concerned about the impact that this recommendation would have on distribution connected windfarms (including projects that are already connected to onshore distribution systems) that are currently treated as Medium Power Stations.

9.17. At our request, an additional meeting of the Grid Code sub group has been arranged to consider the consequential impacts of the recommended definitions of Offshore Large and Offshore Small Power Stations on distribution connected generation. We have also invited distribution licensees to assist with this assessment.

9.18. The Grid Code sub group has been asked to consider:

- If the proposed 10MW threshold is appropriate for distribution connected offshore generators;

- The drivers for changes to the current approach of interpreting the existing definitions for Small, Medium and Large Power Station (i.e. aligning with the arrangements applicable at the onshore connection point); and

- The consequences of the recommended classes of offshore generator on offshore windfarms of 10MW or larger that are currently operational or under development.

9.19. We have also reviewed the proposal to introduce a new class of Balancing Mechanism Unit (BMU). We note that offshore wind farm developments will normally consist of a number of strings of turbines connected to a common connection point. We observe that the common connection point may be owned by the offshore TO or the generator depending on the ownership boundary selected by the generator. We acknowledge the recommendation that a new class of BMU is needed to allow an offshore generator to register its wind farm under the Grid Code as a single Power Park Module irrespective of the ownership boundary offshore provided that:

- The wind farm exports onto the transmission system at a single connection point; and

- There is common ownership of the group of offshore wind turbine strings.

9.20. We consider that arrangements should not preclude customer choice options in respect of ownership boundaries. We consider that the Grid Code sub group's recommendation:

- Is consistent with arrangements for Power Park Modules onshore;

- Would ensure that sufficient information is provided by the generator to the GBSO; and

- Mitigates the risk of perverse incentives to divide a large wind farm project into a number of smaller projects.

9.21. We note the Grid Code sub group's recommendations in respect of reactive power and voltage control capability requirements for an offshore generator. We acknowledge the technical restrictions on the transport of reactive power. We accept that a requirement for an offshore generator to directly provide reactive power support at the offshore grid entry point would not facilitate efficient utilisation of submarine cable capacity.

9.22. We are concerned that the Grid Code sub group's recommendation would introduce different requirements for offshore and onshore generators in respect of reactive power capability range. We consider that further work is needed to investigate cost recovery options for reactive compensation plant installed at the onshore connection point by the offshore TO and to develop arrangements that ensure equal treatment of offshore and onshore generators.

STC

9.23. NGET has been asked to assess the consequential impact on the STC of the Grid Code sub group's recommendation. Other owners of the STC have agreed to NGET carrying out the drafting work and to a role in reviewing the draft text.

9.24. We note that the technical rules in the STC have been defined for transmission owners with enduring investment planning obligations and existing infrastructure to implement switching instructions. We note the dependency with the decisions taken as part of the tender process on the breadth of the activities undertaken by the OFTO. We recognise that it is unlikely that the role of an OFTO will be the direct equivalent to that of the existing onshore transmission owner role. We propose to establish a working group to assist us with our assessment of STC Sections C and D.

10. Implementation issues

Chapter summary

This chapter explains how we intend to implement the proposals we have outlined in this document.

Questions

Question 1: Do you agree with our proposals for implementation as outlined in this chapter? In particular, we would welcome your views on:
- changes to licences; and
- changes to codes.

Question 2: Do you feel that there is any aspect of implementation that we have not considered sufficiently?

Summary

10.1. This chapter provides an overview of our approach for implementing the policies set out in this document. Implementation will be by modifications to codes, licences and agreements. We are considering what additional arrangements may need to be put in place to ensure that the enduring and transitional tender process can be implemented and function effectively.

10.2. The key proposals for implementing changes to licences are:

- That changes should be accommodated within the existing structure of the transmission standard licence conditions, but with the addition of a new section (section E) for offshore transmission owner conditions;
- That additional terms, standard and special conditions will be required to reflect the obligations an OFTO will have, for example, to design and build new infrastructure, some of which would be "start up provisions" which would need to be satisfied before other conditions were activated; and
- That the separation should be enforced between onshore and offshore transmission activities.

10.3. The key proposals for implementing changes to codes are:

- That the offshore transmission arrangements can be implemented by modification of existing industry codes (possibly creating offshore specific sections). We will continue to assess this view as policy decisions are developed;

- That Ofgem will centrally co-ordinate the development of code change proposals which are needed to implement policy decisions;

- That we will agree working arrangements with code owners to facilitate drafting of change proposals required for or as a consequence of offshore transmission; and

- That the STC Governance Arrangements will be reviewed to assess if they are appropriate for an increasing number of transmission licensees.

Proposals

Licences

10.4. Section 90 of the Energy Act 2004.

10.5. With the development of offshore transmission networks, we will need to modify the transmission licensing system to accommodate the entry to the market of new OFTOs. Some provisions of the existing transmission licences will be appropriate for offshore and onshore transmission owners and therefore we envisage that certain provisions of the existing licences would be applied to OFTOs. However, we envisage that it would also be necessary to introduce obligations and requirements specific to offshore transmission, including some "start up provisions" which would need to be satisfied before an OFTO could commence providing transmission services. We propose to insert specific terms and special conditions which are particular to an individual OFTO as well as a new section of standard conditions into the transmission licence to reflect the specific requirements and obligations that should only apply to offshore transmission owners. We also propose not to activate provisions of the existing licences that are not relevant to the OFTO.

10.6. In developing the obligations, we intend to review each standard condition of the transmission licence to identify necessary changes to reflect the policy proposals set out in this document. The necessary modifications will be drafted by Ofgem and BERR in consultation with industry and final modifications to standard licence conditions will be made by the Secretary of State under section 90 of the Energy Act 2004 (which provides the Secretary of State with discretionary powers to modify standard conditions of transmission or distribution licences for purposes connected with offshore transmission or offshore distribution). The GBSO's licence will be reviewed and modified to enable it to carry out its functions as system operator offshore in accordance with section 91 of the Energy Act 2004 (which provides the Secretary of State with discretionary powers to modify the GBSO's licence as he considers appropriate for such a purpose). The special conditions of existing transmission licences will also be reviewed to identify if any incidental, consequential or transitional changes are required to those licences.

10.7. It is possible that successful bidders for offshore connections may also be the owners of an adjoining, separately price-controlled onshore transmission network to which the offshore transmission network connects. We propose to require that

holders of offshore transmission licences do not also hold a current onshore transmission licence. This would ensure that existing licensees operate any offshore transmission activities as a separate legal entity.

Codes

10.8. Having undertaken a scoping exercise, we do not believe that there is a need for any additional industry codes to be created in order to implement and operate new offshore transmission arrangements. We are therefore proposing that any necessary changes can be implemented by modification of existing industry codes. Owing to the different nature of some of the offshore arrangements and the obligations pertaining to them, we believe it may be appropriate in some cases to create offshore specific sections in existing codes.

10.9. We believe that Ofgem is best placed to centrally co-ordinate the development of code change proposals since it will continue to be closely involved in the development of policy decisions that will need to be reflected in changes to codes and can identify where changes may be necessary. Ofgem will work closely with the code owners in each case and agree working arrangements.

10.10. We are working with 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. The modifications will be made by the Secretary of State.

10.11. We will be engaging with the owners of the Distribution Code and the DCUSA (DCUSA ltd) to discuss the best way to progress necessary changes to these documents arising as a result of the arrangements for offshore transmission networks that connect directly to onshore distribution networks.

Recent Developments

10.12. Since the Government decision and Ofgem Scoping Document in March 2007, we have agreed with NGET that it will produce draft legal text for changes to the CUSC, STC and Grid Code that are required to implement our policy decisions. We will provide drafting instructions and will oversee this work. Noting that the STC is a jointly owned document, we have proposed to SPTL and SHETL that they should participate in the STC development work as required by us and/or NGET. We have reviewed working arrangements to ensure that appropriate measures are in place to ensure confidentiality.

10.13. In conjunction with NGET, we have reviewed the governance arrangements for the STC. We are concerned that these arrangements would not be appropriate for the expected increase in numbers of transmission licensees. We will be considering this issue further.

11. Work programme

Chapter summary

This chapter outlines our timetable for delivering the proposals outlined in this document and how we propose to engage effectively with industry parties through the process.

Questions

Question 1: Do you agree with our proposed work programme as outlined in this chapter? In particular, we would welcome your views on our proposed approach to industry engagement.

Question 2: Do you feel that there is any aspect of our proposed work programme that we have not considered sufficiently?

11.1. We anticipate that the earliest date for commencement of sections 90, 91 and 92 of the Energy Act is October 2008 and of sections 89 and 180 is October 2009. 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 this Policy direction document
October 07	Publication of Government response to this document Publication of initial proposals for licences
January 08	Publication of draft of licences Publication of draft of code modifications Publication of final policy proposals
June 08	Final consultation for licences begins Final consultation for codes begins
September 08	Consultations end
October 08	'Go-active' (Secretary of State designation) - s90, 91 and 92 of the Energy Act 2004 commence
October 09	'Go-live' (subject to approval by Ministers and Authority) - s89 & 180 of the Energy Act 2004 commence

Industry Engagement

11.3. Since the publication of the March Scoping Document we have held a number of working groups in the areas of Access, Charging, Technical Rules, Tender and bidding process, and Regulatory regime and licensing. We have also held a number of bi-lateral meetings with interested parties.

11.4. Following publication of this document we propose to continue with the use of existing industry working groups wherever possible, and to continue the groups set up specifically for offshore or consolidate groups into the following areas:

- Codes;
- Licences; and
- Regulations.

External communication sessions

11.5. Ofgem and BERR held the first of a series of external communications sessions on 24 April 2007 following the publication of the March Scoping Document. These sessions are designed to inform, provide additional clarity to published documents and enable stakeholders to provide feedback to us.

11.6. They are generally scheduled to coincide with a particular key milestone in the project, with the next session scheduled for 10th August 2007 from 10:00am - 13:30pm at the BERR Conference Centre, 1 Victoria Street, London, SW1. If you would like to reserve a place please e-mail offshore.transmission@dti.gsi.gov.uk.

Appendices

Index

Appendix 1 - Consultation Response and Questions

1.1. We would like to hear the views of interested parties in relation to any of the issues set out in this document.

1.2. We would especially welcome responses to the specific questions which we have set out at the beginning of each chapter heading and which are replicated below.

1.3. Responses should be received by 5 September and should be sent to:

Colin Green
Ofgem
9 Millbank, London SW1P 3GE
020 7901 7143
offshoretransmission@ofgem.gov.uk

1.4. Unless marked confidential, all responses will be published by placing them on the websites of Ofgem (www.ofgem.gov.uk) and BERR (www.dti.gov.uk). Respondents may request that their response is kept confidential. We shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

1.5. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.

1.6. Next steps: Having considered the responses to this consultation, the Government will publish a response in October 2007. Any questions on this document should, in the first instance, be directed to:

Colin Green
Ofgem
9 Millbank, London SW1P 3GE
020 7901 7143
offshoretransmission@ofgem.gov.uk

CHAPTER: One

There are no questions in this chapter.

CHAPTER: Two

There are no questions in this chapter.

CHAPTER: Three

Question 1: Do you agree with our proposals for the design of the regulatory regime as outlined in this chapter? In particular, we would welcome your views on
- the role of the OFTO and the obligations that it would undertake;
- the regulatory and contractual framework, including the duration of (and what happens at the end of) the revenue stream, predefined adjustment mechanisms, transfer arrangements, and business separation requirements;
- the form and quantum of performance incentives;
- dealing with changes to generator requirements; and
- the allocation of risk.

Question 2: Do you feel that there is any aspect of the design of the regulatory regime that we have not considered sufficiently?

CHAPTER: Four

Question 1: Do you agree with our proposals for the enduring competitive process as outlined in this chapter? In particular, we would welcome your views on:
- the use of an annual tender application window;
- the design of the tender process, and the stages we have outlined;
- recovery of tender costs; and
- running the tender process.

Question 2: Do you feel that there is any aspect of the enduring tender process that we have not considered sufficiently?

CHAPTER: Five

Question 1: Do you agree with our proposals for the transitional arrangements as outlined in this chapter? In particular, we would welcome your views on:
- the pre-conditions for qualifying transitional projects;

- the tender process for transitional projects, and whether they capture the potential projects that will require adoption;
- the transfer of assets; and
- interaction with the enduring regime.

Question 2: Do you feel that there is any aspect of the transitional arrangements that we have not considered sufficiently?

CHAPTER: Six

Question 1: Do you agree with our proposals for the connection application process as outlined in this chapter? In particular, we would welcome your views on:
- the pre-application process;
- the indicative offer process (stage 1);
- the final offer process (stage 2); and
- the roles of the generator, the GBSO, and the OFTO in this process.

Question 2: Do you feel that there is any aspect of the connection application process that we have not considered sufficiently?

Question 3: We outline two options for annual tender application windows. Which of the following options do you think are appropriate?
- Option 1: A mandatory annual tender application window, to be incorporated into the offshore connection application and tender process; or
- Option 2: To rule out an annual tender application window and allow generators to realise cooperation benefits independently and optionally.

CHAPTER: Seven

Question 1: Do you agree with our proposals for connection via distribution networks as outlined in this chapter? In particular, we would welcome your views on:
- comparable types of connection;
- charging arrangements; and
- connection application processes.

Question 2: Do you feel that there is any aspect of connection via distribution networks that we have not considered sufficiently?

CHAPTER: Eight

Question 1: Do you agree with our proposals for charging, access and compensation as outlined in this chapter? In particular, we would welcome your views on:
- the development of charging arrangements;
- access products; and
- compensation proposals, particularly whether there should be a penalty only regime in place for the OFTO.

Question 2: Do you feel that there are any aspects of charging, access and compensation that we have not considered sufficiently?

CHAPTER: Nine

Question 1: Do you agree with our proposals for technical rules as outlined in this chapter? In particular, we would welcome your views on:
- security standards; and
- the recommendations for developing technical rules.

Question 2: Do you feel that there is any aspect of technical rules that we have not considered sufficiently?

CHAPTER: Ten

Question 1: Do you agree with our proposals for implementation as outlined in this chapter? In particular, we would welcome your views on:
- changes to licences; and
- changes to codes.

Question 2: Do you feel that there is any aspect of implementation that we have not considered sufficiently?

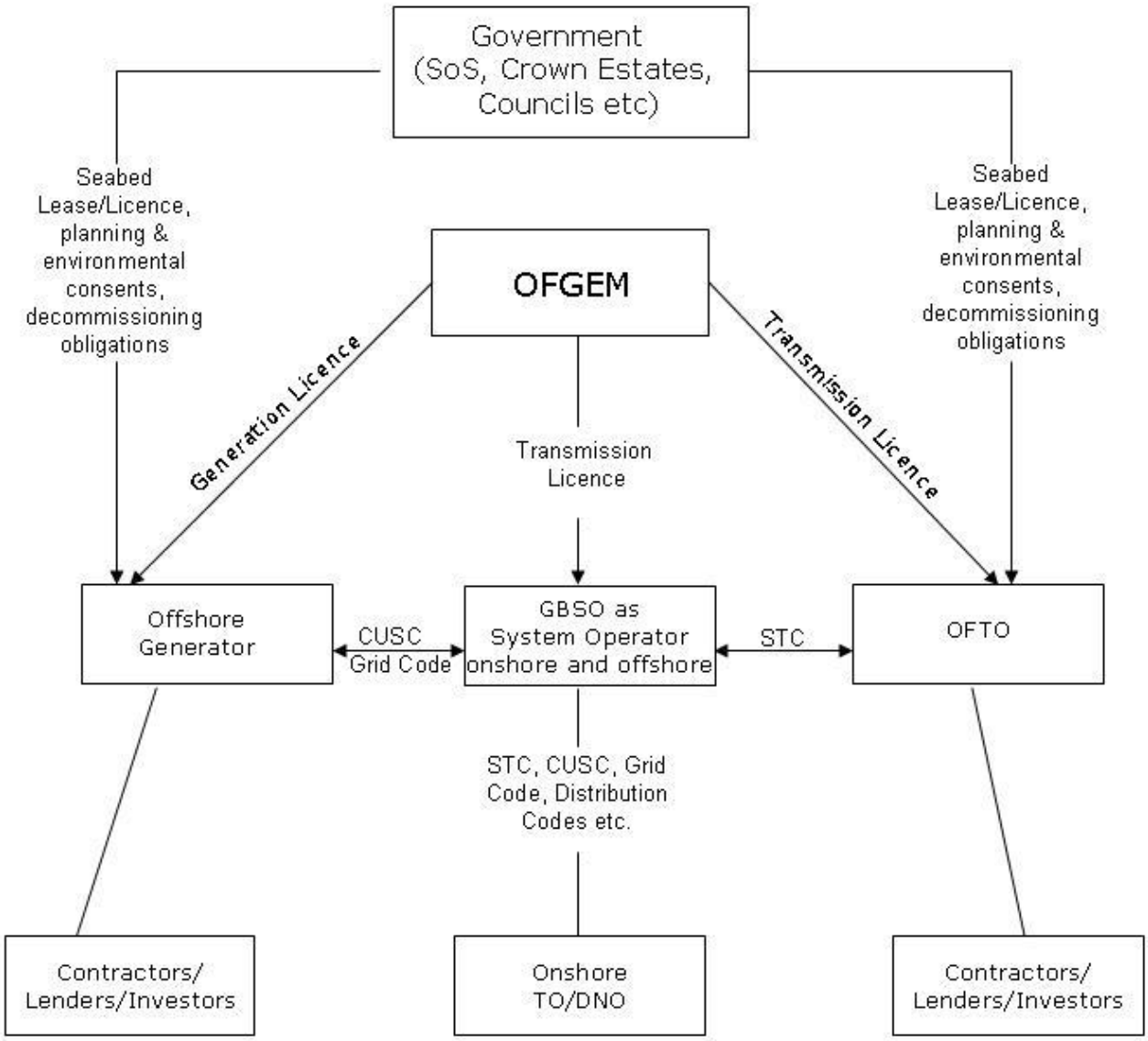
CHAPTER: Eleven

Question 1: Do you agree with our proposed work programme as outlined in this chapter? In particular, we would welcome your views on our proposed approach to industry engagement.

Question 2: Do you feel that there is any aspect of our proposed work programme that we have not considered sufficiently?

Appendix 2 – Contractual framework

1.1. The chart below illustrates the contractual framework for offshore transmission.



Appendix 3 – Illustrative Risk Matrix

Risk Matrix

1.1. The following table illustrates how risks in offshore transmission projects would be shared between the OFTO, offshore generators, and GBSO/GB consumers.

Risk		To be taken by		
		Offshore Generator Developer	Offshore Transmission Owner	GBSO/ Consumers via price control
A	BIDDING PHASE			
	Bid Costs		X	
	Delay to or cancellation of offshore generation project		X	
B	GENERIC RISKS (applicable in Construction + Operation Phases)			
	Force majeure		X	
	Change of government		X	
	Change of regulatory regime by Ofgem		X	
	Change in Law		X	
	3rd Party Access[24] to available capacity		X	
	Change of ownership[25]		X	
	Stranding caused by – offshore generator insolvency/abandonment	X		X
	Stranding caused by - OFTO insolvency/abandonment		X	X
C	CONSTRUCTION PHASE			
	All construction risks (including ground/sea-bed condition, obtaining leases and consents, costs, delays, design risk, financing risk)		X	
D	OPERATION PHASE			
	Revocation or amendment of transmission licence, other consents and approvals		X	
	Availability/Outages –	X		

[24] There will be a requirement to offer TPA to Seabed/Cables/Substation insofar as existing capacity is available. It is acknowledged that there will be a limit to what could be shared.

[25] Standard condition B8 of the transmission licence requires an undertaking from the ultimate controller of the licensee to remain in force. Licensee would need to approach Ofgem to change this undertaking over to new owners.

Risk		To be taken by		
		Offshore Generator Developer	Offshore Transmission Owner	GBSO/ Consumers via price control
	expected and planned (for maintenance and repair)			
	Credit risk for OFTO of non payment by offshore generator			X
	All operational risks (including unexpected outages; underperformance; increase in operating costs; termination of project agreements or default by contractors; breach of STC or industry codes)		X	
	Default or insolvency by GBSO/other TO/DNO			X
	Financing Risks (inflation, interest rates, tax rates, reopeners on price control (if any), funder default)		X	
E	POST PRICE CONTROL REGIME			
	Residual asset value + use/stranding	X		X
	Decommissioning		X	

Appendix 4 – Introduction to TNUoS and connection charges

1.1. This paper was prepared for Ofgem and BERR by National Grid.

Introduction

1.2. National Grid has been charged with developing open and non- discriminatory Use of System charging methodologies for the future offshore transmission network. Within Ofgem's March 2007 Scoping Document[26] the question was asked if the existing onshore transmission charging methodology was appropriate to be applied offshore and if so, whether any aspects should be changed. It is intended for this document to facilitate parties who are not familiar with onshore arrangements in making such an assessment.

1.3. This paper is a guide to the governance, principles and mechanics behind existing onshore Transmission Network Use of System (TNUoS), Balancing Use of System charges (BSUoS) and Connection charges. This paper also provides illustrative indicative offshore values for network use of system tariffs based on generic offshore connection examples.

1.4. This paper makes the following high level assumptions:

- That extension is made to the TNUoS charging methodology such that the costs incurred by offshore transmission licensees are recovered by the GBSO; and
- The costs of offshore platforms and cable marshalling equipment are assumed to be the equivalent of onshore generation connection substations and so would be funded by the TNUoS tariff rather than via connection charges.

Charging

1.5. The Transmission Licence places various legal obligations upon the holder. One of which (C5) is for National Grid to produce TNUoS charges which better achieve the "Relevant Objectives" of:

- Facilitating competition in generation;
- Reflection of costs incurred; and
- Taking account of developments in the transmission business.

1.6. In addition there are a number of charging objectives specified within the Charging Methodology, including the provision of:

[26] http://www.ofgem.gov.uk/Networks/Trans/Offshore/ConsultationDecisionsResponses/Documents1/070330_2ndOffshoreScopingDoc_final_am.pdf

- Transparency;
- Simplicity;
- Predictability;
- Stability; and
- Reproducibility

1.7. The Connection and Use of System Code (CUSC), which all transmission connected generators are required to sign up to lays out the requirement to pay TNUoS charges in accordance to the Statement of Use of System Charges.

Balancing

1.8. Balancing Services Use of System charges are levied on generators, suppliers and interconnector users on a non-locational basis. Charges are based on metered energy taken from or supplied to the transmission system in each half-hour settlement period.

1.9. The BSUoS methodology will set out how the costs incurred by National Grid Electricity Transmission (NGET), in its role as onshore GBSO and offshore GBSO designate, in providing balancing services are recovered.

1.10. The BSUoS methodology reflects the incentive payments available to NGET through its System Operator incentives scheme if it is able to provide balancing services at costs lower than forecast. A key driver for the methodology is, therefore, the form of the System Operator incentives scheme.

Connection Charges

1.11. Connection charges are the means by which National Grid recover the costs associated with providing connection assets that are associated with a User's connection to the transmission network. For cables and overhead lines, connection assets are those single user connection circuits connected at a transmission voltage equal to or less than 2km in length that are not potentially shareable.

1.12. The connection charge itself is calculated as the cost of providing and operating those assets. The charge includes a reasonable rate of return on capital employed.

1.13. The Statement of the Connection Charging Methodology defines the precise boundary between transmission infrastructure assets ("shareable") and connection assets ("non-shareable").

1.14. The connection charging methodology also provides new users with choice over how connection charges are paid, e.g. via a one-off upfront capital contribution or via annual charges.

TNUoS Charges

1.15. The GB TNUoS charging methodology provides transmission users with efficient investment signals that reflect the cost of establishing transmission infrastructure. Such signals, when incorporated in the individual financial appraisals of market participants, assist in the development of an economically efficient transmission system.

1.16. TNUoS charges are the method by which National Grid recovers the cost of building, operating and maintaining the GB electricity transmission network on behalf of the Transmission Owner activities within England and Wales (NGET), the north of Scotland (SHETL) and south of Scotland (SPT). The allowed revenues (set by Ofgem) for these activities are determined during the review of the Transmission Owner price controls, which occur every five years. Charges reflect the impact Users have on TO costs, measured by a unit increase/ decrease in their network use. The principle behind the charge is that efficient, economic signals are provided to Users when transmission services are priced to reflect the cost of supplying them. This allows Users to make an informed decision on their infrastructure (or service) requirements in response.

1.17. Charges will vary by location and depend on whether a party is a net exporter (ie. exports energy onto the transmission system) or a net importer (ie. takes energy off the system) at times of peak demand. NGET, in its role as onshore GBSO and offshore GBSO designate, levy TNUoS charges on generators and demand customers.

- The TNUoS charge is itself made up from two elements;
- a locationally varying element; and
- a flat residual revenue recovery component.

1.18. The “locational” element is determined within the Investment Cost Related Pricing (ICRP) DC Load Flow (DCLF) model. This element of the charge reflects the long-run forward looking marginal cost of a change in generation or demand (ie. the physical characteristics of the network) at a particular point (node) on the transmission network.

1.19. The “residual” charge ensures the recovery of revenue for non-locationally varying elements (e.g. substation assets), which are not covered by the locational signal and are paid for by all users on a consistent basis depending on the size of connection.

1.20. To provide greater stability, and for administrative simplicity, tariffs are grouped into pre-determined geographic "zones" and a zonal average is calculated (discussed further in paragraph 27). The TNUoS tariff for each generation and demand zone is published as a single figure in NGET's charging statement. The 2007/08 zones and tariffs for both demand and generation are shown in Annex 2.

Locational Transport Model

1.21. The DCLF model comprises a number of "nodes" representing the points where electricity flows on to or from the transmission system and the network of circuits which link these nodes. A base case is run using this model to identify the electrical flows across the network consistent with a balanced system (ie. generation is balanced against demand) at times of peak demand. The model is then run to see how electrical flows would differ if there was an additional 1MW of generation at each node on the network whilst applying 1MW of demand at the most interconnected node on the system (named the "slack node"). This gives an incremental flow of electricity across the network. The transport model then calculates the effect of this incremental increase (in demand or generation) at each node on the marginal cost of transmission system investment. Investment costs are represented in terms of megawatt kilometres i.e. if 1 MW was injected on the system at a node what would be the net change in total kilometres of transmission system.

1.22. It should be noted that the marginal cost can be negative which represents how additional generation would actually delay the requirement for further network reinforcement as a whole.

1.23. Substations are modelled as nodal points connected by circuits which have parameters specified such as type (OHL/ cable), voltage, length and impedance/ reactance. Demand Users are modelled at their winter peak consumption (Triad), with all generation's Transmission Export Capacity (TEC) scaled to match. This is consistent with the basis used when determining network investment.

1.24. The majority of transmission requirements in GB are met using the most efficient medium, 400kV overhead lines (OHL) and so to facilitate an equal comparison for cables and overhead lines, all circuits are converted into an equivalent length of 400kV OHL. In order to convert the marginal kilometres figure derived from the transport model into a £/kW signal, the expansion constant, expressed in £/MWkm, is used. The "expansion constant" is NGET's estimate of the unit cost of transmitting 1MW of energy for a distance of 1km ("MWkm"). The transmission infrastructure capital costs used in the calculation of the expansion constant are provided via an externally audited process. They also include information provided from all Transmission Owners (TOs). They are based on historic costs and tender valuations adjusted by a number of indices (e.g. global price of steel, labour, inflation, etc.). The objective of these adjustments is to make the costs reflect current prices, making the tariffs as forward looking as possible. This cost data represents National Grid's 'best view'; however, it is considered as commercially sensitive and is therefore treated as confidential.

1.25. The expansion constant is calculated at the start of the price control period and is annual inflated by RPI. For 2006/7 it was set at £9.88/MWkm for the duration of the price control period.

1.26. The conversion rates applied to facilitate comparison between different transmission technology sizes (i.e. 132kv) and types (i.e. underground cable) are called "Expansion Factors" and are found by dividing the average cost of transmitting 1MW along 1km of each technology by the expansion constant.

Tariff Model

1.27. The tariff model converts the nodal marginal costs into zonal tariffs. Demand zones based on Grid Supply Point (GSP) groups whilst generation zones are defined at the five yearly Price Control review and follow certain zoning criteria:

- Relevant nodes within in a zone should have marginal costs that produce a maximum spread of tariffs of £2/kW across the zone;
- The nodes should be geographically and electrically proximate; and
- For generation zones, the relevant nodes to be considered are only those with generation connected as these only will affect generation tariffs

1.28. To provide stability zones are not reviewed more frequently unless exceptional circumstances occur, that would detriment the appropriate, cost reflective locational signals, provided.

1.29. Initial zonal transport tariffs are determined by first calculating a weighted average, or zonal marginal km value, of all the relevant nodes within each demand and generation zone based upon their marginal cost and TEC, for generation or peak demand. This is then multiplied by, two factors, the Expansion Constant and the Locational Security Factor to produce a Zonal Initial Transport Tariff.

1.30. The Locational Security Factor (LSF) represents the cost associated with capacity built to ensure system security and to achieve the most economic system operation. One way of interpreting the security factor is to consider it as additional capacity that would be required to accommodate incremental generation at each node under all SQSS secured events (contingencies that must be taken into account when assessing system security) rather than under a "no fault" or intact scenario.

1.31. For each node in turn, the worse case fault is found that has the greatest effect of increasing marginal cost i.e. greatest required transmission investment. A best fit line is plotted of the total marginal cost of the secured network against the unsecured network, the gradient of which is the Locational Security Factor. For 2007/8 it is 1.8 which is fixed for the five year Price Control period.

Final Tariffs

1.32. All Zonal Initial Transport Tariffs are multiplied by either the expected metered triad demand or generation Transmission Export Capacity (TEC) to produce an estimate for revenue recovery. As stated within the methodology, the split in revenue recovery between generation and demand is 27:73. This means that 73 per centof the total use of system revenue "pot" is recovered from demand customers and 27 per centfrom generation customers, and that total revenue is consistent with NGET, SPT and SHETL's TPCR agreed allowed revenue.

1.33. The total revenue has been agreed as part of the five yearly Transmission Price Control review (currently around £1.1bn a year).

1.34. To ensure revenue recovery for substation assets, which are not covered by the locational signal, a residual tariff is added for both generation and demand. This is added to the adjusted Initial Transport Tariffs to produce final zonal tariffs, as published within the Statement of Use of System Charges[27].

Next steps

1.35. A worked example has been provided within Annex 1, detailing the steps performed in producing a range of illustrative TNUoS charges for an offshore generator connection. A number of assumptions have been made and stated to allow the analysis to be undertaken before the offshore arrangements are fully developed.

1.36. This methodology applies to existing onshore transmission assets and although it has been suggested that the offshore arrangements should be based upon similar principles, consultation and agreement are yet to be sought. The offshore transmission charging methodology is currently being determined, parallel to the commercial arrangements and industry codes. Industry participants are being actively consulted throughout the process via the two regular charging forums hosted by National Grid, the TCMF[28] and CISG.

1.37. If you have any further questions, comments or would be interesting in attending the TCMF or CISG charging forums contact Tom Ireland by email (Thomas.ireland@uk.grid.com) or on 01926 656152.

[27] www.nationalgrid.com/uk/Electricity/Charges/chargingstatementsapproval/
[28] www.nationalgrid.com/uk/Electricity/Charges/TCMF/

Annex One - Worked example

In order to facilitate modelling of future offshore connections, let us consider an example of a 200MW generator connecting in the Greater Wash strategic area. Offshore substation costs have been excluded from this analysis:

Spur length:	60km
Capital cost of cable:	£20 million
Cable installation cost:	£10 million
Minimum security standard:	Offshore – "zero redundancy"
Transmission connection substation:	Walpole
2007/8 expansion constant	£9.88/MWkm

At present there are no standard unit costs in use for undersea cables and so, to derive a tariff for offshore connections, unit costs of the relevant undersea cable technology need to be estimated.

No estimate has been made for the onshore reinforcement costs. For the purpose of this illustration it is assumed that the onshore use of system tariff adequately reflects the long-run cost of such works.

The calculations below assume that the onshore SQSS security standards have been applied offshore. It is likely that the level of connection security for offshore, as recommended by the OTEG SQSS group, will be at a lower standard than this. The current working assumption is that the minimum offshore security standards will have zero redundancy and therefore the resulting offshore security factor will be 1. The cost reflective final tariffs produced are likely to be significantly lower reflecting the lower asset requirements[29].

Expansion Factor Calculation

In order to add this connection to the Transport and Tariff model an Expansion Factor must be calculated from the cable unit cost:

Cable unit cost = capital + installation cost/ (length * cable capacity)

= (£10m + £20m) / (60km * 200MW)

= £30m / (60km * 200MW)

= £2500/MWkm

29 National Grid is currently progressing a proposed modification to the Charging Methodology to deal with both offshore assets and SQSS Design Variations onshore.

Note that a unit cost of £2000/MWkm was identified from specific connection design and cost data analysis performed by Econnect in 2004 as part of a study for the Renewables Advisory Board (RAB) offshore working group. The figure of £2500/MWkm is considered a reasonable approximation of the current unit price reflecting recent market increases in raw material prices.

The cable's Expansion Factor is determined by firstly converting into an annual cost then dividing by the Expansion Constant (the equivalent cost for 400kV OHL). The annuitisation (10.7%) is derived from an asset life of 20 years and includes the assumptions that offshore maintenance cost factors (1.8%) and cost of capital (8.9%) are the same as onshore.

Determining the Expansion Factor:

Expansion Factor = cable unit cost * annuity factor / expansion constant

Expansion Factor = £2500MWkm * 10.70%/ £9.88MWkm = 27.07

Therefore 400kV equivalent marginal length = 27.07 * 60 = 1624km

Transport and Tariff Model

The existing Transport and Tariff model has yet to be amended to allow additional Expansion Factors to be added, necessary for the modelling of offshore cables. This can be worked around by modelling the cable as an equivalence of 400kV OHL, which will produce the same finals TNUoS tariffs. This example has a marginal length of 1624km of 400kv OHL.

When the model is run, the generator node qualifies for a unique zone and the marginal km of the zone is approximately 1900MWkms (or £33.83). This is relative to the "slack node". Re-referencing is performed (so revenue recovered from generation equals 27 per cent of total) which adjusts the zonal tariff to £28.15. The final step is to add the non-locational residual component, to ensure accurate total revenue recovery. The figure for 2007/08 (£3.84) has been applied here to produce a final zonal tariff of £31.99/kW. The residual element is likely to change as a greater proportion of substation infrastructure is constructed both on and offshore.

It is important to note that the cost reflective locational signal between generation zones remained constant and has not been diluted by re-referencing or the addition of the residual.

Illustrative tariffs

As part of the ongoing development of the offshore transmission regime a workshop was held in January 2007 to discuss the onshore TNUoS charging methodology and its potential application offshore.
The data presented by National Grid at this forum is reproduced below. Please note that these illustrative examples come with the following caveat: 'The figures used

(e.g. cable unit costs), are from just a single source and are not the industry agreed values. Also a substantial number of assumptions have been made (some of which are also listed below), such as the onshore methodology being employed offshore. The examples are intended for indicative purposes only.'

- 2007/8 onshore TNUoS tariffs have been used as a base
- Cost of onshore circuit from shore to MITS has been ignored
- Only the single Offshore wind farm has connected - multiple generators connecting in a strategic area could significantly effect network flows and tariffs
- An asset life of 20 years has been assumed[30]
- The cost reflective final tariffs produced are likely to be significantly lower reflecting the lower asset requirements[31].

The illustrative offshore values resulting from extending the TNUoS charging methodology offshore are as follows:

Strategic area	Onshore connection node	TNUoS Zone	2007/8 onshore tariff (£/kw)	60km cable 2500/MW/km TNUoS tariffs (£/kw)
North West	Pentir	11	6.41	34.58
	Heysham	9	5.88	35.05
Greater Wash	Walpole	13	4.00	31.99
	Killingholme	9	5.88	34.62
Thames Estuary	Sizewell	14	1.97	31.09
	Kemsley	17	0.91	29.10

[30] The previous version of illustrative TNUoS tariffs, as presented during the Jan 07 offshore workshop were based upon a charging asset life of 50 years

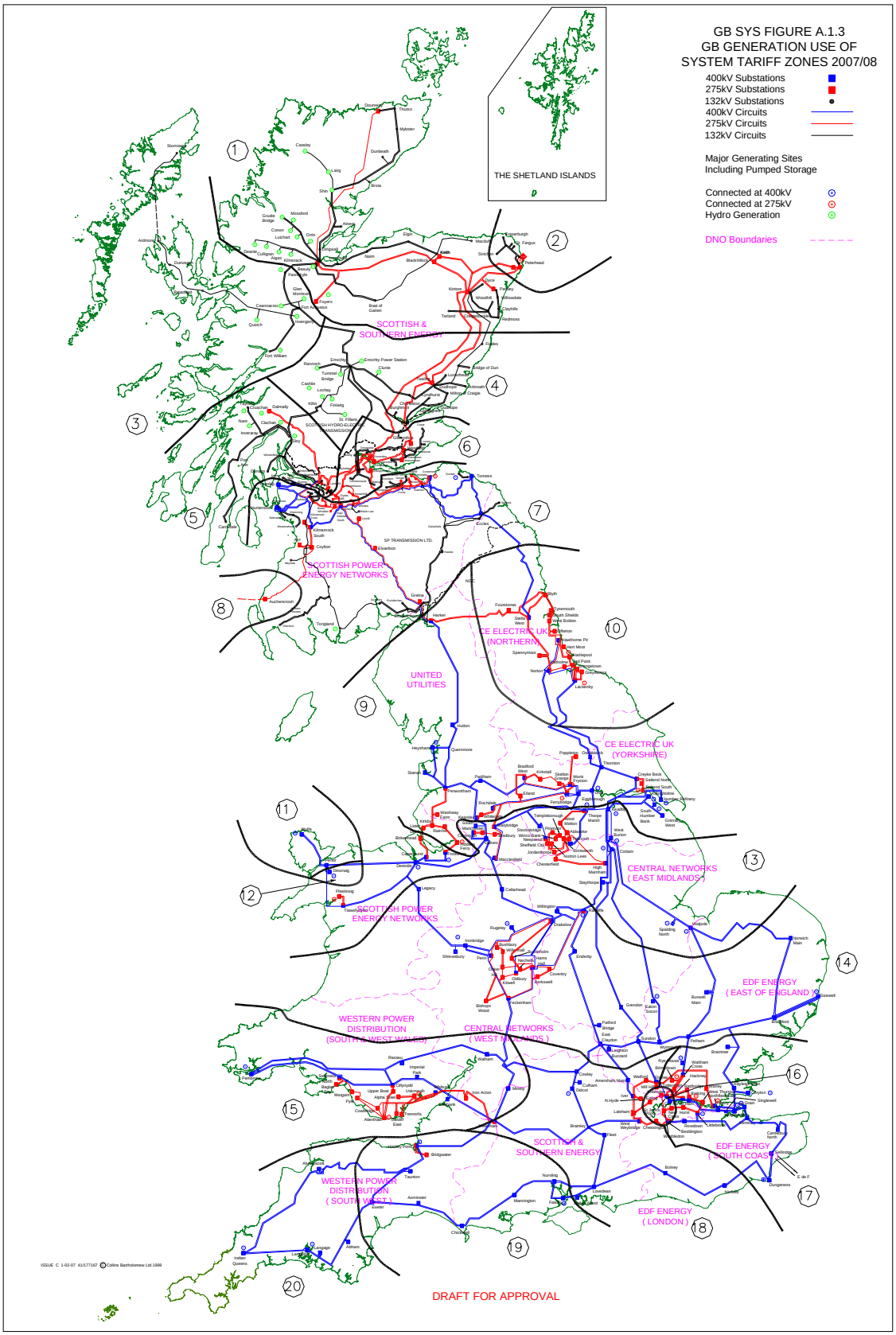
31 National Grid is currently progressing a proposed modification to the Charging Methodology to deal with both offshore assets and SQSS Design Variations onshore.

Annex Two – 2007/8 Generation/ Demand Tariffs and Zonal Diagrams

2007/8 TNUoS Generation Charges (£/kW)

Generation Zone	Zone Area	Generation Tariff (£/kW)	Short Term Generation Tariff (£/kW)		
			28 Days STTEC Period	35 Days STTEC Period	42 Days STTEC Period
1	North Scotland	21.590831	4.534075	5.667593	6.801112
2	Peterhead	19.233718	4.039081	5.048851	6.058621
3	Western Highland & Skye	19.858255	4.170234	5.212792	6.255350
4	Central Highlands	16.436431	3.451651	4.314563	5.177476
5	Argyll	14.677167	3.082205	3.852756	4.623308
6	Stirlingshire	14.031535	2.946622	3.683278	4.419934
7	South Scotland	13.017061	2.733583	3.416979	4.100374
8	Auchencrosh	10.137439	2.128862	2.661078	3.193293
9	Humber, Lancashire & SW Scotland	5.883070	1.235445	1.544306	1.853167
10	North East England	9.253848	1.943308	2.429135	2.914962
11	Anglesey	6.409118	1.345915	1.682393	2.018872
12	Dinorwig	9.281586	1.949133	2.436416	2.923700
13	South Yorks & North Wales	3.996719	0.839311	1.049139	1.258966
14	Midlands	1.973640	0.414464	0.518081	0.621697

15	South Wales & Gloucester	-2.457186	0.000000	0.000000	0.000000
16	Central London	-5.714694	0.000000	0.000000	0.000000
17	South East	0.908414	0.190767	0.238459	0.286150
18	Oxon & South Coast	-0.265230	0.000000	0.000000	0.000000
19	Wessex	-4.098569	0.000000	0.000000	0.000000
20	Peninsula	-8.568052	0.000000	0.000000	0.000000


GB SYS FIGURE A.1.3
GB GENERATION USE OF
SYSTEM TARIFF ZONES 2007/08
400kV Substations
275kV Substations
132kV Substations
400kV Circuits
275kV Circuits
132kV Circuits
Major Generating Sites
Including Pumped Storage
Connected at 400kV
Connected at 275kV
Hydro Generation
DNO Boundaries
THE SHETLAND ISLANDS
SCOTTISH & SOUTHERN ENERGY
SCOTTISH POWER ENERGY NETWORKS
CE ELECTRIC UK (NORTHERN)
UNITED UTILITIES
CE ELECTRIC UK (YORKSHIRE)
CENTRAL NETWORKS (EAST MIDLANDS)
SCOTTISH POWER ENERGY NETWORKS
EDF ENERGY (EAST OF ENGLAND)
WESTERN POWER DISTRIBUTION (SOUTH WEST WALES)
CENTRAL NETWORKS (WEST MIDLANDS)
SCOTTISH & SOUTHERN ENERGY
EDF ENERGY (SOUTH COAST)
WESTERN POWER DISTRIBUTION (SOUTH WEST)
EDF ENERGY (LONDON)
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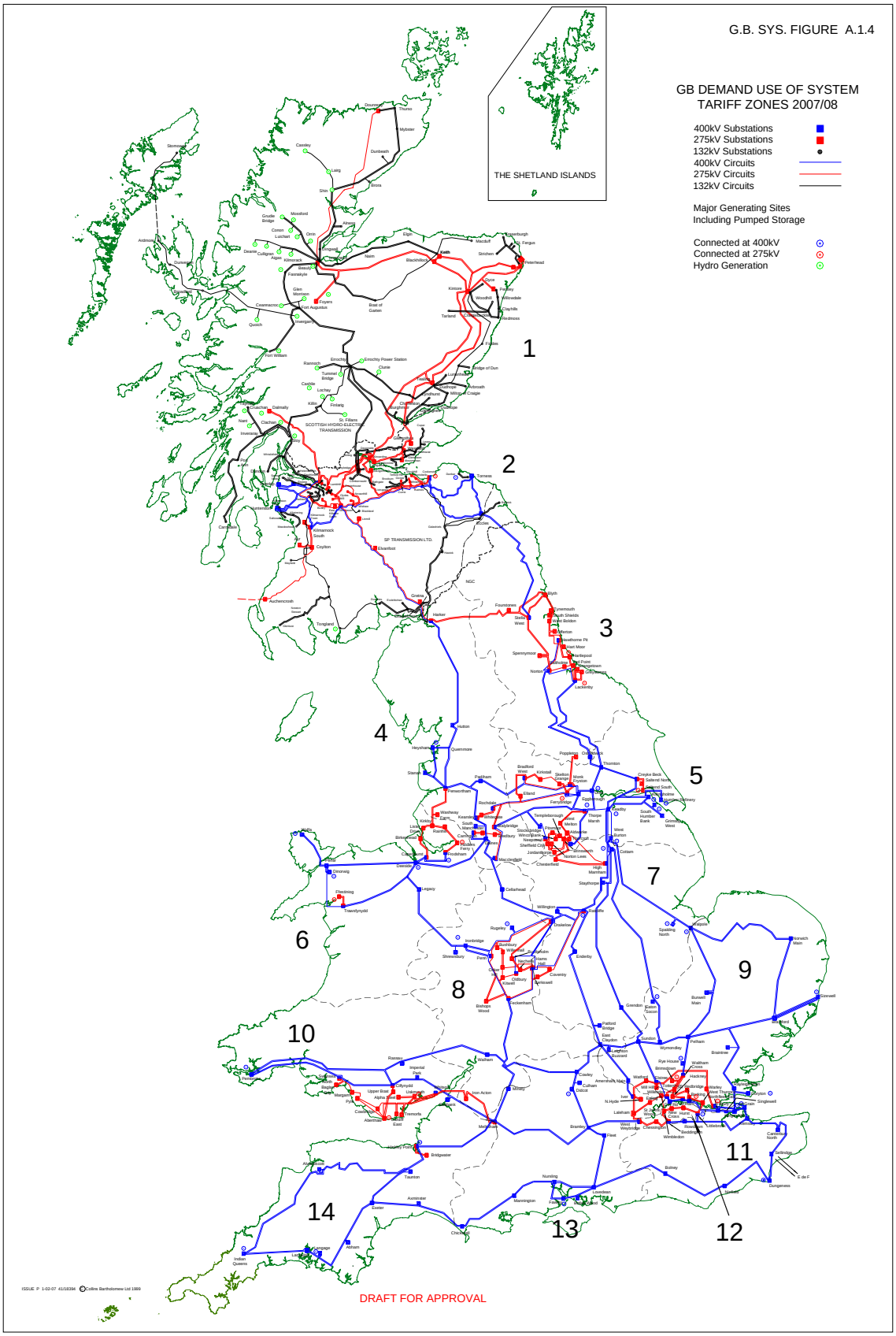
2007/8 TNUoS Demand Charges (£/kW)

Demand Zone	Zone Area	Demand Tariff (£/kW)
1	Northern Scotland	1.445659
2	Southern Scotland	6.362303
3	Northern	9.884146
4	North West	13.646168
5	Yorkshire	13.615270
6	N Wales & Mersey	14.084355
7	East Midlands	16.370802
8	Midlands	17.807318
9	Eastern	17.060375
10	South Wales	21.537451
11	South East	20.076054
12	London	22.164365
13	Southern	21.100281
14	South Western	23.770560


G.B. SYS. FIGURE A.1.4
GB DEMAND USE OF SYSTEM
TARIFF ZONES 2007/08
400kV Substations
275kV Substations
132kV Substations
400kV Circuits
275kV Circuits
132kV Circuits
Major Generating Sites
Including Pumped Storage
Connected at 400kV
Connected at 275kV
Hydro Generation
THE SHETLAND ISLANDS
1
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14
DRAFT FOR APPROVAL

Appendix 5 – 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.[32]

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[33].

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[34]; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[35]

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:

[32] entitled "Gas Supply" and "Electricity Supply" respectively.
[33] 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.
[34] 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.
[35] The Authority may have regard to other descriptions of consumers.

- Promote efficiency and economy on the part of those licensed[36] 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 Regulation37 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.

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

Appendix 6 - Glossary

A

ASW

Advanced Services Works

Authority

Gas and Electricity Markets Authority

B

BaFO

Best and Final Offer

BERR

Department of Business Enterprise and Regulatory Reform

BETTA

British Electricity Transmission and Trading Arrangements

BMU

Balancing Mechanism Unit

BSC

Balancing and Settlement Code

BSUoS

Balancing Services Use of System

C

CISG

Charging Issues Standing Group

CUSC

Connection and Use of System Code

D

DCUSA

Distribution Connection and Use of System Agreement

DNO

Distribution Network Operator

E

EPC

Engineering Procurement and Construction

G

GBSO

Great Britain System Operator

GBSQSS

Great Britain Security and Quality of Supply Standard

GW

Gigawatt

H

HSE

Health and Safety Executive

I

IMED

Internal Markets Electricity Directive

ITT

Invitation To Tender

K

kV

Kilo Volt

N

NGET

National Grid Electricity Transmission plc

O

Ofgem

Office of Gas and Electricity Markets

OFTO

Offshore Transmission Owner

OTEG

Offshore Transmission Experts Group

P

PFI

Private Finance Initiative

R

RAV

Regulated Asset Value

RO

Renewables Obligation

S

SEA

Strategic Environmental Area

STC

System Operator - Transmission Owner Code

SYS

Seven Year Statement

T

TASG

Transmission Access Standing Group

TCMF

Transmission Charging Methodologies Forum

TEC

Transmission Entry Capacity

TnUoS

Transmission Network Use of System

Appendix 7 - 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, or 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:

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