Department of Energy and Climate Change

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Offshore Electricity Transmission - A further Joint Ofgem/DECC Regulatory Policy Update

Document type: Consultation

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Deadline for response: 9 January 2009, although we would welcome comments of a material nature by 18 December.

Target audience: Transmission Licence Holders and all with an interest in renewable energy and offshore electricity transmission.

Overview:
Ofgem and the Department of Energy and Climate Change (DECC) are working together to implement a regulatory regime for offshore electricity transmission. This document sets out further updated proposals for the design of the competitive offshore transmission regime and contains a consultation by the Secretary of State on the licence and industry code changes that the Secretary of State considers are appropriate for purposes connected with offshore transmission

This document is the intended penultimate consultation on the offshore transmission regime and represents the second consolidated consultation on the changes to the key industry documents that support this regime. The first consultation on these documents was published on 13 June 2008.

The regime will be implemented by commencement of certain provisions of the Energy Act 2004 alongside any relevant changes resulting from the Energy Bill.

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Context

This document forms part of the joint project of DECC and Ofgem to develop and implement a regulatory regime for offshore electricity transmission. It gives stakeholders a further opportunity to comment on the proposals for the design of the regulatory regime and the proposed revisions to the standard licence conditions, codes and industry standards for implementing the regime.

Offshore electricity transmission networks will be required to transfer electricity from offshore renewable generating stations to the GB onshore networks. Offshore renewables are expected to make an important contribution to the achievement of the UK's share, when agreed, of the EU target of sourcing 20 per cent of energy from renewable sources by 2020. It is therefore important that 'fit for purpose' offshore networks are developed efficiently to ensure consumers and generators do not face unnecessarily high charges and that connections are provided at the lowest possible cost through technical innovation.

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 design, finance, build, maintain and operate this infrastructure should lead to the most economic and efficient solution for both consumers and generators. This document sets out our updated policy proposals, as well as the licence and industry code changes to facilitate the implementation of a competitive regulatory regime for offshore electricity transmission.

Associated Documents

Offshore Electricity Transmission: Competitive tender process (Ofgem ref: 142/08)

Offshore Electricity Transmission - A joint Ofgem/BERR Regulatory Policy Update (Ofgem ref: 84/08, BERR ref: URN 08/730)

Offshore Electricity Transmission - Regulatory policy update (Ofgem ref: 4/08)

Regulation of offshore electricity transmission – Government response to offshore electricity transmission – a joint Ofgem/BERR policy statement (BERR ref: 08/546)

Offshore electricity transmission: Ofgem/BERR joint policy statement (Ofgem ref: 189/07 BERR ref: URN 07/1096)

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)

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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Executive Summary

This document is the intended penultimate in a series of joint consultations by Ofgem and the Government to establish a regulatory framework for offshore electricity transmission networks. Following the BERR and Ofgem consultation document, published on 13 June 2008, entitled "Offshore Electricity Transmission – A Joint Ofgem/BERR Regulatory Policy Update" ("the June 2008 Policy Update"); this consultation gives:

- a refinement to our policy positions on the detailed design of the regulatory regime, made in response to comments received to the June 2008 Policy Update and other engagement with our stakeholders and advisers; and

- a further update as to the changes to standard industry documents that the Secretary of State considers are appropriate for purposes connected with offshore transmission.

Following the publication of the June 2008 Policy Update, and taking into account responses to that document, many policy positions are unchanged and are reflected in the annexed draft licence and industry codes which the Secretary of State is consulting on. However, some policy positions have been developed further and views are sought on the updated draft licence and industry code changes. There are also a number of issues highlighted in this document where views are sought on specific aspects of policy proposals which require further development. Our intended final consultation will be published in Spring 2009, taking account of comments received in response to this document.

Since taking powers in the Energy Act 2004 (EA2004) for the purpose of licensing and regulating offshore electricity transmission, the Government (the Department of Energy and Climate Change - DECC[1)] has been consulting jointly with Ofgem on the details of the new regulatory regime. The Government expects offshore renewable energy generation to make a major contribution to meeting the UK's renewable energy targets.

Up to 8GW of offshore wind farm generation capacity has already been awarded leases by the Crown Estate under licensing Rounds 1 and 2 and will be seeking to connect to the GB onshore grid over the next few years. Over £2 billion of new investment is expected to be needed for the transmission infrastructure to carry this energy ashore.

[1] Formerly the Department for Business, Enterprise and Regulatory Reform (BERR) and previously the Department of Trade and Industry (DTI)

To help achieve the UK's contribution to meeting the EU's 2020 renewable energy target, which is likely to require a contribution of 30-40 per cent renewable electricity, the Government has announced draft plans to assess up to 25GW of new offshore wind, in addition to the 8GW already planned.

On 4 June 2008, The Crown Estate launched the leasing process for Round 3 projects to facilitate the delivery of this additional generation. The development of this further offshore generation capacity has the potential to trigger several billion pounds worth of additional investment in offshore transmission networks. In addition, the Crown Estate is leasing sites for renewable generation in Scottish territorial waters. This includes wave and tidal generation in the Pentland Firth and surrounding waters and windfarm development in suitable locations around the Scottish coast. In some cases connection to the onshore system will be captured by the offshore transmission regime.

The new offshore transmission regulatory regime has been developed through the process of consultation with industry and stakeholders. Essentially the system for the provision of a GB onshore grid connection is being extended offshore – with the generator seeking a grid connection offer from the GB System Operator (GBSO) and the grid connection being provided by an independent transmission company - an Offshore Transmission Owner (OFTO). The generator then pays for the use of the transmission system through the transmission charging methodology determined by the GBSO.

However, because these are new transmission licences that are being awarded, and there is scope for competition for those licences, the Government took powers in the EA2004 for Ofgem to make regulations facilitating the selection by competitive tender of persons to whom OFTO licences are to be granted. Following consultation, the Government concluded in March 2007 that there should be tenders for building, owning and maintaining specific offshore transmission assets.

In January 2008 the Government confirmed its decision that Ofgem would run those tenders and announced that it would be seeking additional powers in the Energy Bill currently before Parliament to enable Ofgem to recover its costs of running the tenders, ensure sufficient commitment to the tender from participating parties and establish a property transfer scheme to ensure the effective and timely transfer of transmission assets, where appropriate, under the transitional arrangements.

Since establishing the high level policy framework for the new regime, DECC and Ofgem have been consulting on the detailed aspects that will underpin its operation.

BERR and Ofgem's June 2008 Policy Update set out updated policy proposals and detailed drafting of the various codes and standard licence conditions that are considered appropriate to implementing the offshore transmission regime. We sought views from stakeholders by 25 July 2008 (with a request for comments of a material nature by 4 July).

DECC and Ofgem received written responses from 18 respondents to the June 2008 Policy Update. A full list of respondents who submitted non confidential responses is at Appendix 2. Non-confidential responses may be viewed on the Ofgem website[2]. Appendix 1 of this document contains a detailed summary of the responses received to the proposals and questions presented in the June 2008 Policy Update. We would like to thank all those who contributed their views. All responses received, views expressed and questions raised during the consultation period have been assessed against the Government's policy aims and have been considered in developing the new regulatory regime.

A joint BERR/Ofgem external communications event was held on 7 July 2008. BERR, Ofgem and National Grid Electricity Transmission (NGET) in its role as GBSO gave presentations on the proposed regime. The presentations were followed by Question & Answer sessions. A note of the event is available on our websites[3].

This Ofgem/DECC Joint Regulatory Policy Update provides a further opportunity for stakeholders to comment on the details of the new offshore transmission regime and sets out our latest joint policy proposals and timetable for implementation. These have been developed in the light of the views expressed by respondents' to the June 2008 Policy Update and other engagement with stakeholders.

We believe these proposals reflect policy positions which will create the right framework for efficient investment in offshore transmission networks, allow scope for technical and operational innovation, and are sufficiently flexible to meet the needs of future offshore generators.

This consultation also sets out further proposed changes to the various codes and licence conditions to implement these proposals. These have been developed in the light of comments on the previous drafts that accompanied the June 2008 Policy Update. We welcome views on these drafting proposals, including on whether they accurately reflect the policy positions contained in this document.

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2 http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=32&refer=Networks/offtrans/pdc/cdr/cons2008

3 http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=Networks/offtrans/edc
or http://www.berr.gov.uk/files/file47234.pdf

This document sets out policy positions with respect to the proposed regulatory framework and seeks views on the further detail as set out in the consultation. In particular, we are seeking views on our updated policy thinking on several specific aspects of the incentive framework which has been informed by further work that we have undertaken.

Implication of European Union Unbundling Requirements

European Union (EU) Ministers agreed a Third Package of legislation on the internal EU energy market to regulate Gas and Electricity Markets at the EU Energy Council meeting on 10 October 2008. Following agreement with the European Parliament we anticipate the measures will be adopted in the first half of 2009. EU Member States will then have two and a half years to implement the unbundling requirements within the Third Package.

The Government and Ofgem strongly supports the Third Package which aims to develop a competitive internal EU energy market. We particularly welcome the provisions on ownership unbundling, enhanced powers and independence for regulatory authorities and extensive transparency requirements.

One of the areas that the Third Package of Legislation covers is unbundling, which concerns the separation of electricity generation and/or supply from electricity transmission activities[4]. The Government and Ofgem support the European Commission's preferred option of ownership unbundling - in broad terms, that an electricity transmission owner would no longer exercise control of an electricity generation or supply company in the European Economic Area, and vice versa.

We recognise that the Third Package of Legislation will require changes to our proposals for the new offshore transmission regulatory regime. These concern the ability of generator affiliates to own offshore transmission assets and also the proposed OFTO of Last Resort provisions under transitional arrangements (where we had proposed that generators could become a holder of a transmission licence, subject to business separation requirements, in the unlikely event that the tender process failed to identify an OFTO). We have set out a possible revised approach to OFTO of Last Resort and further detail in chapter 2 of this document for comment.

[4] As Chapter 2 explains, the Council agreed that Member states should have three options for implementing the proposed changes, one of which is ownership unbundling.

Design of the regulatory regime

The June 2008 Policy Update set out our updated thinking on the regulatory regime, including the period of the revenue stream, the form of incentives and the treatment of uncertain costs and benefits that arise over the life of the transmission assets. This document sets out the further development of our thinking and our detailed policy proposal. These can be summarised as follows:

- The period of the initial revenue stream will normally be 20 years;
- Where there is a demonstrable ongoing generation need for the offshore transmission assets beyond the end of the initial 20 year revenue stream, the Authority will consider, on a case-by-case basis, whether to set a revenue stream for a further period or undertake a further tender exercise to appoint an OFTO;
- We do not intend to introduce pre-defined adjustment for unpredictable and uncertain costs and savings that may emerge over the life of the transmission system;
- An appointed OFTO will, at the discretion of Ofgem, be allowed to undertake incremental investment up to a value of 20 per cent of the initial capital cost over the life of the offshore transmission systems without being subject to a further tender exercise, providing that the additional investment is generator led;
- We are seeking further views on the inclusion of adjustment mechanisms for certain predictable but uncertain costs and savings that may emerge over the life of the transmission system;
- We propose to adopt an asymmetric incentive for operational availability. Default targets and incentive rates are proposed, with up to 10 per cent of the OFTOs annual regulated revenues exposed to the incentive. We have set out the detailed design of the operational availability incentive framework; and
- We propose appropriate ring fencing provisions between the GBSO and its Offshore Transmission business.

Most issues set out in the policy framework for the price control regime will be implemented in the form of Special Conditions of the transmission licence agreed as part of the tender exercise.

The Tender Process

Over the past year we have set out in increasing levels of detail how the tender process will work for the granting of OFTO licences, both for the transitional[5] regime and on an enduring[6] basis. The overall design of the process remains unchanged, with the result of the tender process being the identification of a successful bidder and subsequent granting of an OFTO licence.

Stakeholders should note that work dealing with issues relating to the design of the tender process is now being taken forward through separate Ofgem consultations and more details of those work streams are set out below. As such, stakeholders should direct comments on issues relating to tenders in response to those documents.

Tender documentation

We set out in the June 2008 Policy Update that Ofgem was working on developing detailed tender documentation, and Ofgem provided a detailed contents list for the documentation in the appendices. Since the publication of that document, Ofgem has substantially developed the documentation, and has already published it for comment. The separate consultation documentation sets out the key requirements for bidders in the competition, what Ofgem expects by way of responses and also the key evaluation criteria Ofgem will use in the selection process.

The separate consultation document on the tender process was published on 6 October 2008 and is entitled "Offshore Electricity Transmission: Competitive Tender Process". The consultation and responses are available at:

http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=68&refer=Networks/offtrans/pdc/cdr/cons2008

Tender Regulations

In July 2008, Ofgem published its preliminary draft of the regulations that will underpin the tender process. These regulations are an important piece of secondary legislation and will be made by the Authority ahead of Go Active in accordance with

[5] For these purposes we call transitional projects those which are either already built, are expected to be under construction or achieve financial close before the regime reaches the 'Go Active' or 'Go Live' dates.

[6] Enduring projects are projects that do not meet the criteria for transitional projects, and will require OFTOs to design, build, finance and maintain transmission assets.

section 92 of the Energy Act 2004 (which will insert section 6C of the Electricity Act 1989).

Ofgem received 13 responses to the draft regulations. Over the coming months, Ofgem will continue work on these regulations and consult further on them in the New Year. This will be the final consultation on the tender regulations. The Authority will then make the regulations ready for Go Active.

The tender regulations consultation and the published responses are available at:

http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=68&refer=Networks/offtrans/pdc/cdr/cons2008

Standard Development Framework

There are many detailed changes required to industry codes, technical standards and standard licence conditions in order to introduce the regulatory regime for offshore transmission. This document provides an update on the key issues in each of these areas and sets out, where appropriate, our proposals, detailed drafting or further thinking for consultation. These are contained in Chapter 4 and in the appendices and annexes to this document.

Transmission Charging

The June 2008 Policy Update referred to NGET's proposed modification to the Transmission Network Use of System (TNUoS) charging methodology and highlighted two main concerns about the basis of and justification for the proposed modification. The concerns related to NGET's assumptions about the information that will be collected as part of the OFTO tender process and the basis of the split between locational and residual charging elements in respect of offshore transmission systems. It referred to Ofgem's formal letter of 30 May 2008 to NGET requesting it to undertake further analysis and initiate a supplementary consultative process with industry to address the concerns.

NGET has recently published a supplementary consultation detailing its revised proposals for the introduction of charging arrangements associated with offshore transmission networks. We expect these proposals to form the basis of the final charging modification proposal for submission to the Authority for approval in December 2008, and no later than 1 January 2009. This will allow the Authority to make a decision before 1 April 2009.

Chapter 5 of this document provides an update on the development of the charging methodology.

Next Steps

Addressing the potential implications of the EU Energy Council's decision of 10 October 2008 has required additional time and resources, and has necessitated a delay in the publication of this document. We recognise that the inclusion of the issues set out in Chapter 2 has broadened the scope of this consultation. Given the wider coverage that this consultation now has we have also decided to allow 6 weeks for comment rather than the previously planned 4 weeks. We also plan to shorten the intended final consultation period from 8 weeks to 6 weeks. This will have a consequential impact on the 'Go-Active' and 'Go-Live' dates. Our revised key milestones are set out below.

We anticipate the key high-level milestones and dates to be as follows:

November 2008	Publication of this Consultation Document DECC/Ofgem External Communication Session Anticipated Royal Assent for the Energy Bill powers
New Year	Second Ofgem Tender Regulations Consultation
February 2009	Ofgem to publish revised tender consultation including an update on the regulatory regime and the tender documentation
Spring 2009	Final consultation on Offshore Transmission Regime including codes and licences
June 2009	'Go-Active' commencement of sections 90, 91 and 92 of EA20004
Summer 2009	First tenders commence
June 2010	'Go-live'[7] commencement of sections 89 and 180 of EA2004

DECC and Ofgem will hold an external communication session on 8 December 2008 at Church House Conference Centre, Dean's Yard, Westminster, SW1P 3NZ to discuss this consultation in more detail. Invitations will be issued shortly but if you would like to reserve a place please send an email to offshore.transmission@berr.gsi.gov.uk

The Government and Ofgem value the significant contribution that the industry has made during the development of the regime. To ensure that this continues, in addition to the external communication session, there will be further opportunities for engagement. NGET is engaging in bi-lateral meetings with transitional projects.

[7] Go-Live is expected to be one year after the Go-Active date

Finally, over the coming months, Ofgem will continue to engage with developers of round 1 and round 2 projects that fall under this regime, and also with potential OFTOs, to help all parties prepare for the tender process. Parties wishing to meet with Ofgem in advance of the tender process should contact Sam Cope on 020 7901 7239 or by email at Sam.Cope@ofgem.gov.uk.

1. Introduction

Chapter Summary

This chapter gives policy context and the rationale for the proposed approach to regulating offshore transmission. It also outlines the purpose, structure and how to respond to this document. For further background to the development of the Offshore transmission regime, please see Appendix 9.

Purpose of this document

1.1. This document is the intended penultimate in a series of joint consultations by Ofgem and Government to establish a regulatory framework for offshore electricity transmission networks. This consultation gives:

- a refinement to our policy positions on the detailed design of the regulatory regime, made in response to comments received to the June 2008 Policy Update and other engagement with our stakeholders and advisers; and
- a further update as to the changes to standard industry documents that the Secretary of State considers are appropriate for purposes connected with offshore transmission.

Policy context

1.2. The Government is introducing a new regulatory regime for offshore electricity transmission to connect significant amounts of renewable offshore generation to the onshore electricity network. Since taking powers in the Energy Act 2004 (EA2004) for the purpose of licensing and regulating offshore electricity transmission, the Government (the Department of Energy and Climate Change - DECC) has been consulting jointly with Ofgem on the details of the new regime

1.3. A significant increase in the amount of the UK's electricity that is generated from renewable sources will be required to meet the UK's contribution to the EU's 2020 renewable energy targets. As a result between 30—40 per cent of the UK's electricity is expected to have to come from renewable sources. Currently the contribution of electricity from renewable sources to the UK's generation mix stands at just over 5 per cent, so up to an eight-fold increase is likely to be needed over the next 12 years.

1.4. The Government expects that offshore wind generation will have a key role to play in achieving the UK's renewable energy targets. An offshore transmission regime that connects that new generating stations in offshore waters to the GB onshore grid in the most efficient and secure manner will therefore be a crucial element in the successful achievement of those targets.

Offshore Transmission

1.5. To enable new generation projects to connect to the GB onshore grid, the Government has already decided that the principles behind the regulation of the GB onshore electricity transmission network should be extended offshore, except where the specific circumstances of offshore generation mean that changes should be made.

1.6. In practice this means:

- That transmitting electricity offshore at 132kV and above will be a prohibited activity without a licence;
- That the safe and secure transmission of electricity offshore will be achieved through amendments to the existing system of licences, codes and agreements that govern onshore electricity transmission;
- NGET, as GBSO will be responsible for operating and co-ordinating both onshore and offshore grid connections; and
- That the costs of building and operating the new offshore transmission assets will be recovered from generators and customers via NGET's charging methodology.

1.7. The Government's policy for the UK energy market includes introducing competition where appropriate and only regulating where necessary. Since this will be a new licensing regime offshore, with the opportunity for new market players to enter the market, the Government has also concluded that there should be a competitive tender to decide who should be the licensed OFTO to connect specific offshore transmission assets.

Renewable Energy Policy Development

1.8. Since starting the process of developing the new regime to licence offshore electricity transmission, the targets for the deployment of renewable electricity generation in the UK have increased significantly and the scale of offshore wind development envisaged has also expanded.

1.9. The majority of responses to the June 2008 Policy Update continued to support the broad approach to licensing offshore transmission being taken, and provided further comments on the detailed proposals set out. However, the changing policy background meant that some of the responses from industry questioned whether the regime would deliver the Government's ambitions for offshore wind in the most effective way, particularly in connecting Round 3 projects.

1.10. The Government continues to believe that the new regime will ensure connection to the GB onshore grid in a timely and cost effective manner whilst

maintaining the integrity of the system as a whole and achieving best value for electricity consumers. It is the Government's view that the extension of the regulated approach to the provision of new transmission infrastructure offshore will be an important enabler to support delivery of the up to 33 GW of offshore wind currently planned in UK waters, and will secure that new indigenous generation capacity for UK consumers in an affordable manner. The injection of additional competition for the delivery of that new infrastructure should also support timely and cost efficient grid connections for offshore developers. Preliminary discussions that DECC and Ofgem have held with potential investors in the new offshore transmission assets have confirmed the suitability of the regulatory regime to attract the significant investment that will be needed.

1.11. Continuing concerns expressed by some developers in response to the consultation centred on the ability of the regime to deliver grid connections beyond the "point to point" connections that are currently envisaged for the majority of individual Round 1 and 2 projects, and the possibility that more extensive transmission systems connecting a number of offshore developers will be needed under Round 3.

1.12. In March 2006 the Government announced that it had concluded that extending the regulated price control approach for the provision of new offshore transmission infrastructure electrical would best meet its energy policy objectives. In reaching that decision the Government concluded that this should also ensure a coordinated approach to the development of that offshore infrastructure. The Government therefore believes that the decisions it has already taken to extend the principles behind the regulation of the GB onshore grid offshore and to extend the role of the GBSO offshore will provide a number of benefits. These include ensuring consistency with onshore arrangements, providing assistance to offshore developers by spreading the costs they would pay to connect to the GB onshore grid over a number of years, sharing existing developer risk between developers, OFTOs and the GBSO, and ensuring a coordinated approach to offshore network development by reducing unnecessary duplication of transmission assets.

1.13. The reasons why the Government remains of this view are discussed further in this chapter.

Planning for future offshore renewable generation

1.14. The Government announced on 10 December 2007 the commencement of an Offshore Energy Strategic Environmental Assessment (SEA) which will consider the draft plan of achieving up to 25GW of offshore wind generation by 2020, on top of

the 8GW already planned under Rounds 1 and 2[8]. DECC is intending to publish an Environmental Report in January 2009, setting out the likely impacts - environmental, economic, and social - of the draft plan. The Government then expects to announce its decision on the acceptable level of offshore wind development in Spring 2009. This will enable The Crown Estate to offer offshore wind development rights (leases) to the market, within the scale and locational boundaries set by the Government's decision.

1.15. In order to expedite the process, The Crown Estate is running its Round 3 offshore wind leasing competition in parallel with the Offshore Energy SEA process. Expressions of Interest closed on 4 September 2008; with the publication of the Invitation to Negotiate on 29 September 2008. Consortia are required to register with The Crown Estate by December 2009, with bids due on 3 March 2009. However, a decision on awards by The Crown Estate will only be made following the Government decision[9].

1.16. Under Round 3, potential partners are being invited by The Crown Estate to bid for Development Zones. These Development Zones may cover larger areas of the seabed than in Rounds 1 and 2, and there may be the potential to develop more than one wind farm site per Zone. The Crown Estate has published a number of indicative maps to assist potential partners in identifying opportunities; however any final decisions on the location of the final development zones will need to abide by the Government Decision. The Crown Estate has also offered to make a joint investment alongside the Partners to fund up to 50 per cent of total investment for the development of sites.

1.17. Successful bidders will acquire exclusive rights to develop wind farms in specified zones. This will enable a more strategic approach to the expansion of offshore wind under Round 3, by increasing the developers' flexibility to choose the best sites, to minimise impacts, explore strategic mitigation measures and enable strategic planning, such as electricity grid infrastructure investment.

1.18. The zonal developer will be able to consider what kind of electricity transmission infrastructure will be most economic and efficient to its long term plans and signal its requirements. Tenders can then be run on the basis of the long term commitments provided by the developer and should assist in ensuring the coordinated development of the offshore grid. Further details on the tender process in the enduring regime are contained in Ofgem's Offshore Electricity Transmission

[8] http://www.offshore-sea.org.uk/site/

[9] For further information on The Crown Estate approach to Round 3, please access http://www.thecrownestate.co.uk/round3

Competitive Tender Consultation document. DECC and Ofgem will continue to work with The Crown Estate to ensure that the approach to the development of offshore renewables and associated grid infrastructure is compatible and delivers the most economic and efficient network infrastructure from offshore renewable generation.[10]

1.19. A number of comments from respondents to the June 2008 Policy update questioned whether, with the expected approach for Round 3 projects, we also need to ensure that the offshore infrastructure is in place to anticipate demand and ensure that renewable generation is brought in as quickly and effectively as possible.

1.20. We note that the design of the transitional regime has provided certainty for round 2 project developers to proceed with their investments. Our view is that, as for Round 1 and 2 projects, actual generator requirements should drive the connection process in Round 3. We note that there appear to be strong commercial incentives for groups of generators in Round 3 developments to work together to establish joint connection requirements, or make individual connection requests at similar times. There are significant capital and operating cost savings for generators pursuing integrated networks with their neighbours (given that the bulk of offshore transmission costs will be in the cable to shore). The commercial incentive for offshore generators is expected to be stronger than onshore due to the proposed approach for specific allocation of charges associated with offshore transmission systems.

1.21. Currently, the onshore connection application process facilitates a forward-looking approach to network development. The generator can request a connection for capacity requirements that reflect a defined, phased development programme. Such applications will inform a transmission licensee's strategic network planning. We have proposed that this option should be extended offshore and consider that it would be beneficial for Round 3 projects. We also note that the regime would be flexible to future changes in the connection process, which would be implemented through the normal industry governance processes.

1.22. Further, in Round 3, the efficient development costs of sea-bed studies, obtaining planning consents, and designing networks will be recoverable by whichever party conducts the work (the generator, bidding OFTO or both). This strongly supports efforts by interested parties to design efficient and integrated networks for generators in a particular development area.

[10] Further information is available at: http://www.thecrownestate.co.uk/offshore_wind_energy

1.23. The proposed offshore transmission regime allows NGET, as GBSO, to make offers to Round 3 generators of one of three types:

- A connection designed for a single project between the GB transmission system and the offshore connection point requested by the offshore generator;
- A connection designed for a single project between the GB transmission system on a phased development basis (e.g. increase of Transmission Entry Capacity (TEC) over a defined period); or
- A connection designed for a group of separate projects between the GB transmission system and the offshore connection points requested by each of the offshore generators.

1.24. The design of connections offered to individual applicants, is dependent on timing of applications received by NGET. This is also the case onshore.

Renewable Energy Strategy

1.25. On 26 June 2008 the Government published its Renewable Energy Strategy (RES) Consultation document[11]. The consultation considered a number of measures that have the potential to achieve the delivery of 15 per cent of our energy from renewables by 2020 (proposed by the European Commission as the UK share of the 20 per cent EU-wide target). The measures aim to stimulate the market to deliver the necessary investment in the most cost effective way by providing a clear long term framework and removing the obstacles to increasing renewable generation while ensuring that sustainability concerns are minimised. One of the questions posed by the RES consultation was "Taking into account decisions already taken on the offshore transmission regime and the measures set out in the Transmission Access Review, what more could the Government or other parties do to reduce the constraints on renewable development arising from grid issues". The closing date for responses was 26 September 2008. The responses will help shape the UK RES which will be published in Spring 2009, once the UK's share of the EU renewable energy target has been agreed.

Transmission Access Review

1.26. A further point raised by some respondents to the June 2008 Policy Update was the need to ensure an efficient interaction between the development of the offshore grid and the GB onshore grid, where significant new investment is also likely to be

[11] http://renewableconsultation.berr.gov.uk/

needed to accommodate significant amounts of electricity from offshore wind coming ashore.

1.27. Again, the Government believes that its decision to extend the principles behind the regulation of the GB onshore grid offshore and essentially create one grid network with a common regulatory system will achieve this.

1.28. In the 2007 Energy white paper: meeting the energy challenge, the Government announced a review, led jointly by DECC and Ofgem, of the framework for connecting renewable generation to the grid.

1.29. The review examined the technical, commercial and regulatory framework for the delivery of new transmission infrastructure and the management of the grid to ensure that they remain fit for purpose as the proportion of renewable generation on the system grows. Over the period of the review, the scope widened to recognise the vital contribution that other low carbon and conventional forms of generation will play in ensuring security of supply in a world where more than 30 per cent of electricity comes from intermittent sources.

1.30. The final report of the Transmission Access Review (TAR) was published on 26 June 2008 to coincide with the Governments' Renewable Energy Strategy Consultation

1.31. The measures set out in the TAR Final Report, when taken together will remove, or significantly reduce, grid-related access barriers. The report includes measures that will:

- allow faster connection of some renewable generation to the Grid in the short-term;
- introduce new, enduring grid access arrangements that will allow faster connection and expansion of Grid capacity; and
- identify the new transmission infrastructure necessary to meet the UK share of the 2020 EU renewable energy targets and new financial incentives on the transmission companies to deliver that infrastructure.

1.32. The large amount of renewable offshore electricity generation that is planned and will be seeking connection to the GB onshore grid will present a significant challenge to the onshore network. The TAR GB onshore grid changes are therefore likely to also have important consequences for offshore electricity generation and transmission.

1.33. The Government has relaunched the Electricity Networks Strategy Group (ENSG) grid group to help take the work forward from the TAR report and the RES. Its membership comprises of onshore grid companies and generators and its remit is

to develop a vision of the grid network needed to achieve the Government's renewable energy targets and connection of other forms of generation, and to advise the Government and Ofgem on the necessary steps to deliver it.

1.34. Given a conclusion of the TAR Final Report was the need to undertake a 2020 system study, one of the first tasks undertaken by the ENSG Grid Group is to work with the onshore Transmission Owners (TOs) to develop a plan of the network needed to deliver the 2020 target, based on generation scenarios which include significant amounts of offshore wind.

1.35. Ofgem is also currently discussing with the TOs an incentives package to ensure timely investment in new grid infrastructure. GB onshore grid infrastructure is currently harder to plan and obtain consents for than offshore transmission infrastructure, because the use of the seabed has fewer implications for others than use of onshore land for transmission lines.

1.36. The issue of how onshore TOs can be incentivised to invest ahead of demand, so that the onshore infrastructure is in place to connect offshore wind when it is ready to connect, will therefore also be highly relevant to the successful development of offshore wind farms and is being addressed through the Transmission Access reforms[12]. However, it is important to ensure that consumers are also protected from inappropriate, underused investment, and Ofgem's Transmission Access incentive scheme will identify proposals to deal with this issue.

Addressing other concerns raised by respondents

1.37. We recognise that the new regime will require changes to be made to existing or planned operating practices. We are seeking to ensure that such changes do not incur unnecessary costs and burdens on industry and are grateful for stakeholder input into how this might be achieved. The proposals for a new offshore regime will apply the same principles that govern the GB onshore grid offshore, except where the specific circumstances of offshore generation justify changes being made. This means offshore developers will be able to access the grid on similar terms to onshore generators.

1.38. We acknowledge that changes will need to be made by existing projects to ensure that there is separation of transmission and generation assets but believe that there are practical means of ensuring this does not disrupt existing or planned operations or lead to unnecessary extra costs. As the proposals for the regime have developed we have better understood the balance of risk between developers, OFTOs

[12] Under our proposals certain strategic development costs may already be recovered for Offshore Transmission developments.

and consumers. This latest consultation document contains proposals for ensuring that the risks rest with those best placed to manage them under the new regime.

1.39. Further details on the more specific concerns raised by respondents to the June 2008 Policy Update and how these are being, or have been, addressed are included throughout this document, Ofgem's Tender Process Consultation and, in particular, in Appendix 1 of this document.

1.40. The Impact Assessment accompanying this document also sets out the costs and benefits of proposals.

Structure of this document

1.41. This document is divided into chapters, appendices and annexes. Each chapter in this document sets out for comment the latest position, key proposals (where appropriate), further proposals, questions seeking views from stakeholders on particular areas and how work will be taken forward. This document has 6 chapters:

- Chapter 2 gives information on the likely implications for the offshore electricity transmission regime of the unbundling provisions proposed by the European Commission within the EU Third Package of Legislation[13];
- Chapter 3 sets out our updated proposals on the regulatory regime and seeks views. Proposed changes to the Special Licence conditions of NGET are set out in separate Annex 9;
- Chapter 4 provides feedback on comments received on the first consultation on proposed changes to the technical codes and industry standards and the approach taken to our revised proposals. A more detailed description of the changes and the proposed drafting is given in the separate Annexes 1-8;
- Chapter 5 provides an overview of issues and an update on the process for developing changes to transmission charging required for the offshore regime;
- Chapter 6 provides an overview of the remaining steps and work programme to implement the new regime.

1.42. A list of appendices is included in the table of contents at the front of this document.

[13] Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/54/EC of the European Parliament and of the Council.

1.43. As with the June 2008 Policy Update a number of documents are being published as annexes to this document (See Appendix 4 for a full list of annexes that have been published). These annexes are updated detailed draft documents containing amendments to industry codes, the transmission licence and technical standards for implementing the new regime. We are seeking views on whether the draft texts are appropriate and accurately reflect the policy positions taken.

Responding to this document

1.44. We welcome responses to this consultation. In particular we invite views from respondents on a number of specific questions set out in chapters 2-4, some of which refer to the appendices or annexes. A summary of all questions asked and details of how to respond can be found in Appendix 3.

1.45. Responses should be sent to offshore.transmission@ofgem.gov.uk by no later than 9th January 2009. We would welcome comments of a material nature by 18 December.

2. Implications of European Union Unbundling Requirements

Chapter Summary

- ➔ Following the outcome of the meeting of the EU Energy Council of 10 October 2008, it now appears likely that more stringent separation of generation and/or supply from transmission activities will be required as part of the Third Package of legislation on EU Gas and Electricity Markets.
- ➔ The Government and Ofgem strongly support the Third Package, which aims to develop a competitive internal energy market.
- ➔ If implemented in its current form, the Third Package will allow only companies which meet ownership unbundling requirements to own and operate offshore transmission systems.
- ➔ Our assessment of the measures included in the Third Package is that they will not significantly impact upon the policy framework for the enduring Offshore Transmission Regulatory Regime. They will, however, have implications for the transitional regime and as a result we need to revisit our previous policy position on an OFTO of Last Resort mechanism. We are also seeking views on the possibility of using this mechanism in the enduring regime in the context of abandonment.
- ➔ We are seeking views from parties on the idea of introducing an OFTO of Last Resort obligation to Section B of the transmission licences that applies to onshore transmission licensees – subject to the Third Package unbundling requirements – and to Section E of the transmission licences that will apply to all future offshore transmission licensees
- ➔ This condition uses the existing Supplier of Last Resort provisions as a starting point, which have effectively protected energy consumers in the event that their supplier has failed.

2.1. The EU agreed a Third Package of legislation on EU Gas and Electricity Markets at the EU Energy Council meeting on 10 October 2008[14]. Following agreement with the European Parliament, we anticipate the measures will be adopted in the first half of 2009. The unbundling requirements within the Third Package are expected to be implemented two and a half years following entry into force of the Directive, suggesting Member States will need to ensure compliance with the requirements by the end of 2012.

[14] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0528:FIN:EN:PDF

2.2. The Government and Ofgem strongly support the Third Package, which aims to develop a competitive internal EU energy market. We particularly welcome the provisions on ownership unbundling, enhanced powers and independence for National Regulatory Authorities (NRAs), the establishment of an Agency for the cooperation of NRAs and extensive transparency requirements.

2.3. The UK's experience shows that competition benefits both consumers and the economy. By giving clear investment signals to market players, competitive energy markets are the best way of maintaining secure and sustainable energy supplies, increasing efficiency and improving services for customers.

"Unbundling"

2.4. One of the areas covered by the Third Package is unbundling, which involves, in the offshore transmission context, the separation of electricity generation and/or supply from transmission activities. The Government and Ofgem support the European Commission's preferred option of ownership unbundling – in broad terms, that an electricity transmission owner could no longer exercise control[15] of an electricity generation or supply company, and vice versa.

2.5. Independently operated networks are needed in order to promote competition in EU energy markets and increase security of supply, with energy prices being set by market forces, investments being in line with market needs and energy flowing to those that value it most. Well-functioning EU energy markets will also promote investments to bring to market the low-carbon technologies the EU needs to meet its carbon reduction targets.

2.6. As flagged in previous policy statements and regulatory updates, the offshore electricity transmission regulatory regime the Government is developing jointly with Ofgem will have to comply with EU legislative requirements. Now that the EU Energy Council has reached political agreement and the European Parliament has completed its first reading of the draft Directive, the probable requirements for enhanced business separation are clearer (although the exact provisions remain subject to final agreement between the European Parliament and the EU Energy Council). These developments have implications for the proposed enduring Offshore Transmission Regulatory regime, but have more significant implications for the transitional regime

[15] "Control" is defined in the draft Electricity Directive of the Third Package as:
"any rights, contracts or any other means which, either separately or in combination and having regard to the considerations of fact or law involved, confer the possibility of exercising decisive influence on an undertaking, in particular by:
(a) ownership or the right to use all or part of the assets of an undertaking;
(b) rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of an undertaking".

and our previous proposals on "OFTO of Last Resort". Both implications are discussed below.

Implications for Offshore Transmission Regulatory Regime

2.7. The European Parliament's position is to require undertakings with generation and supply assets and transmission assets to divest either the generation and supply assets or transmission assets. However, the EU Energy Council's common position allows Member States to choose between three options:

- Require undertakings to divest either their generation and supply assets, or transmission assets (known as "full ownership unbundling"); or
- Permit a separately owned Independent System Operator to take over operational control of the transmission assets of a vertically integrated undertaking, i.e. owning generation, supply and transmission assets (known as "Independent System Operator model"); or
- Allow undertakings to remain vertically integrated but to ensure the independence of the transmission operator by complying with a series of conditions (known as "Independent Transmission Operator model").

2.8. By way of derogation, undertakings may remain vertically integrated if they can demonstrate to the NRA and Commission that the arrangements in place guarantee more effective independence of the transmission system operator than the Independent Transmission Operator model.

2.9. As previously stated, once the relevant sections of the Energy Act 2004 are commenced, the transmission of electricity offshore at voltages of 132kV and above will be a prohibited activity without a licence. On 20 November 2006, the Government issued an Open Letter to Industry[16] that set out the regulatory position of high and low voltage offshore connections. The letter explained that all projects connecting to shore via high voltage lines will be regulated under the new offshore transmission regime. High voltage lines will be 132kV and above i.e. the definition applicable to relevant offshore lines when s.180 Energy Act 2004 (and clause 41(3) of the Energy Bill) is commenced.

2.10. On 20 November 2006, the DTI and Ofgem also jointly published a consultation document on the licensing of offshore electricity transmission. The document invited views on two possible models for licensing transmission owner activities under a price control regime. The two options were:

[16] http://www.berr.gov.uk/files/file35598.pdf

- non-exclusive licences: where multiple non-exclusive licences would be issued for the offshore area, with licensees free to compete with each other through a common tender process for the right to build, own and maintain offshore electricity transmission connections; and

- exclusive licences: based on onshore electricity transmission network arrangements whereby a single transmission owner would be exclusively responsible for responding to all future connection requests from generators in a defined geographical area offshore. These area-based licences would also be awarded by competitive tender.

2.11. In March 2007, following consideration of the consultation responses the Government announced that it had concluded that a non-exclusive approach of a common tender was the most appropriate model. In January 2008 the Government confirmed its decision that Ofgem would manage and run the tender process. This meant that there would be no need for pre-licensing of OFTOs as licences would be granted at the end of the tender process. In announcing its decision in March 2007 the Government said it believed the non-exclusive approach will:

- Deliver cheaper and more timely offshore grid connections;

- Encourage innovation through competition and enable new entrants to compete in the market;

- Be more focused on generators' requirements than the onshore system or the exclusive approach; and

- Enable generators to bid to own their own transmission assets if they wish (subject to unbundling requirements compliant with EU legislation) making the adoption issue easier to solve and creating more certainty for generators.

2.12. We have revisited the arguments for the non-exclusive approach in the light of the likely unbundling requirements. We continue to believe that the non-exclusive approach remains the better option for licensing offshore electricity transmission for the majority of reasons set out above. An exclusive approach whereby a bidding OFTO would not know the ultimate commitment in terms of number and size of projects in that zone (which could be higher/larger than The Crown Estate leases made under Round 3 for a zone) would likely lead to higher bids to cover that risk. In contrast, the non-exclusive approach will provide flexibility for the Zonal developer to put forward one, some or all of the projects in a zone for competitive tender. This would therefore reduce risks for developers and potential OFTOs as well as delivering the benefits of greater competition. We believe that there remains a sufficient pool of interested parties that currently meet likely unbundling requirements to ensure meaningful competition for the first tender exercises. In addition, as implementation of the Third Package progresses, and parties chose whether or not to divest themselves of generation or supply interests, the number of potential OFTOs is likely to increase. We also note that some potential OFTOs had expressed concerns that

the ability of generators to bid might distort the competitive process. This concern would be removed.

2.13. One reason for choosing the non-exclusive approach initially was that it made addressing concerns about "adoption" easier to address because generators could bid to become an OFTO. We recognise that the EU unbundling requirements, as drafted, are likely to result in a generator not being able to own its own transmission assets. However, as stated above, we remain of the view that the non-exclusive approach remains the better option. In light of this, we are considering the idea of an alternative OFTO of Last Resort mechanism, as set out in this chapter, with the aim of finding a way to provide greater certainty to generators that their assets would not become stranded.

2.14. Some developers have expressed concerns about the costs, time and expertise required to comply with any business separation arrangements that would have enabled them to become OFTOs under the previous proposal. This revised approach may go some way to addressing those issues and concerns.

2.15. We intend to keep our approach to dealing with the unbundling requirements under review as the detailed provisions of the Third Package are finalised.

Implications for OFTO of Last Resort for Transitional Projects

2.16. In the March 2007 Government Response to the Joint DTI/Ofgem Consultation on Licensing Offshore Electricity Transmission, the Government recognised the concerns of developers, who will have built offshore connections at 132kV and above or are intending to start constructing offshore connections at 132kV and above before the new licensing regime is in place, about the ability to legally transmit electricity from those wind farms affected once the new regime is in operation. To address these concerns the Government and Ofgem have proposed a number of measures to enable projects with connections of 132kV and above to transition to the new regime.

2.17. One concern of developers was what would happen if no potential OFTO came forward to own these transmission assets for transitional projects. The Government previously believed that this risk could be addressed by allowing a generator to bid to build, own and maintain the transmission connection for its project to the GB onshore system. The Government's position on this issue also made clear, however, that this would be subject to the EU Strategic Energy Review in 2006 which was likely to propose more stringent unbundling requirements. We have also previously consulted on a proposal in which Ofgem, having twice conducted tenders for a transitional project and not being able to identify a preferred bidder, would seek to appoint the generator in that project as OFTO of Last Resort.

2.18. As the Third Package is likely to require very stringent unbundling arrangements which go beyond business separation, neither of these possibilities will

be an option; a generator will not be able to own transmission assets in the European Economic Area (EU member states, Norway, Iceland, and Liechtenstein) even with business separation from generation and supply. We anticipate this will result in a number of new entrants to the transmission market as unbundling occurs.

2.19. Although developers will no longer be able to be OFTOs, the Government and Ofgem remain of the view that OFTO of Last Resort arrangements are desirable as a "fall-back" protection for transitional projects against the potential stranding of generation assets. Whilst we continue to believe that such arrangements are unlikely to be required in practice, we are currently exploring an alternative option which should provide developers with sufficient confidence that they will not be left "stranded" without an OFTO in place to operate their grid connection. We set out this alternative option below and are seeking parties' views on it.

Alternative OFTO of Last Resort approach

2.20. We expect tenders will attract significant market interest, involve robust competition and result in the appointment of an OFTO with an efficient and economic proposal for the transmission assets concerned.

2.21. In the event that an initial tender fails to result in the identification of a preferred bidder, Ofgem would seek to understand the reasons for this failure, and launch a new tender exercise in light of feedback from the market. Ofgem would actively market any re-launched tender exercise, aiming to attract a wider pool of bidders, including those which have expressed interest for other offshore transmission projects. Only in the event that at least two tender exercises still fail to yield a preferred bidder would Ofgem consider activating an OFTO of Last Resort arrangement.

2.22. Given the Third Package appears to rule out the option of Ofgem appointing generators as OFTOs of Last Resort, and that the Government and Ofgem continue to support an OFTO of Last Resort fall-back, we are considering the alternative option of Ofgem directing the holder of a transmission licence (i.e. a transmission owner) to become the OFTO of Last Resort, where transitional projects have not been successfully tendered.

2.23. Such a scheme would have some common features of the existing Supplier of Last Resort provision[17], taking the form of a standard licence condition on all TOs

[17] This is given effect Standard Licence Condition 29 in the licence of all suppliers. For further information on Supplier of Last Resort, consult Ofgem's Supplier of Last Resort Revised Guidance (2003) available at:

that meet the EU unbundling requirements (onshore and offshore). In the event that a transitional tender process fails, all licensed TOs would be invited to submit proposals to Ofgem for taking over the transmission assets in question. Ofgem would then assess which proposal is the most efficient and economic, and appoint this TO as OFTO of Last Resort for this asset.

2.24. Because the appointment of an OFTO of Last Resort will follow at least two failed tender processes, we expect that a number of OFTO licences will have been granted by this time (i.e. where licences have been awarded following a single tender process), extending the field of potential OFTOs of Last Resort beyond the current unbundled (onshore) TO licensees. This is particularly the case for first round transitional projects; in second round transitional projects, the potential OFTOs of Last Resort would be all OFTOs granted licences in the first round, and all eligible onshore TOs.

2.25. Ofgem would seek to ensure that the widest possible pool of potential OFTOs of Last Resort is available at the time of commencing any OFTO of Last Resort appointment process, in order to increase competitive pressure and elicit efficient and cost-effective proposals from the parties involved.

Implementing this approach

2.26. To give effect to this approach, we anticipate that the Secretary of State (SoS) would, under section 90 of the Energy Act 2004, amend the standard conditions in the onshore TO transmission licences (Section B subject to the Third Package unbundling requirements) to insert an OFTO of Last Resort obligation. The same condition would also be inserted in Section E such that it would apply to all those with an OFTO licence.

2.27. The actual selection of an OFTO of Last Resort would involve Ofgem inviting proposals from all transmission licensees as to the revenue stream they would require to own and manage the transmission asset involved. We consider that potential OFTOs of last resort would be required to include in their proposals the additional costs they expect to face in taking on the new transmission assets. Ofgem would then assess the efficiency of these costs and determine whether they should be recoverable through a revenue stream, and then appoint the TO with the most efficient and economic proposal. In the unlikely event that no proposals were received, or agreement could not be reached upon the price and/or terms for owning and managing the transmission assets, the Authority would have the option of

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http://www.ofgem.gov.uk/Licensing/Work/Revoc/Documents1/5174-SolR_guidance_doc_24nov03.pdf

directing a transmission licensee to become the OFTO of Last Resort on price and/or terms to be determined by the Authority. Any such direction would be subject to appeal. We are considering whether the appeals process contained in the Supplier of Last Resort provision would be appropriate for the OFTO of Last Resort mechanism. We are also considering whether the Property Transfer Scheme under the Energy Bill provisions would be applicable to an OFTO of Last Resort mechanism.

2.28. Given that the appointment of an OFTO of Last Resort would not involve a full and open competition, Ofgem would not necessarily grant the OFTO of Last Resort a guaranteed 20 year revenue stream, as for other projects. Instead, Ofgem would permit a 20 year revenue stream, identify a period at which it would review the arrangements (for example, five years hence), and, if necessary, re-negotiate the revenue stream with the appointed OFTO of Last Resort.

Abandonment

2.29. We are also considering whether the idea of an OFTO of Last Resort, implemented through the same licence condition set out in this chapter, may also be a useful option in the event of an OFTO abandoning a project in the enduring regime. Further details on the circumstances when this might be considered, and why, are in Chapter 3.

2.30. **We seek respondents' views on the approach outlined in this chapter**

2.31. **Drafting for an OFTO of Last Resort standard licence condition is provided at Annex 1 so as to give respondents a better idea of how this might operate. We invite comments from respondents on this drafting, and whether it raises issues about how this approach might operate in practice. Such a standard licence condition may require consequential changes to codes, which the Secretary of State will assess once we have fully explored this approach, including taking into account comments from respondents.**

3. Regulatory Regime

Chapter Summary:

We have consulted at length on the design of the new regulatory regime for the provision of offshore electricity transmission infrastructure and have reached minded to positions on the majority of the issues set out in the June 2008 Policy Update. In many areas, we have reaffirmed the views that we set out in that document.

However, there are some areas where we have refined our positions in the light of responses to the June 2008 Policy Update and other engagement with our stakeholders.

This chapter sets out our proposals and further thinking on the design of the regulatory framework for offshore electricity transmission and highlights where we are particularly seeking views.

The key proposals for the regulatory regime:

- ➔ To grant a transmission licence that will remain in force until it has been revoked;
- ➔ To provide a revenue stream to fund the offshore transmission licensees for an initial period of 20 years, with limited regulatory intervention;
- ➔ That Ofgem would consider undertaking formal regulatory reviews of the revenue stream where the competition has been ineffective (such as where an OFTO of Last Resort had been appointed);
- ➔ That at the end of the initial 20 year period that Ofgem would consider, on a case by case basis, setting a revenue stream for a further period by either undertaking a regulatory review or undertaking a further tender exercise;
- ➔ That, in accordance with likely requirements for the separation of electricity generation and/or supply from electricity transmission activities arising from the EU Third Package of legislation on EU Gas and Electricity Markets, generator affiliates may not be permitted to own of offshore transmission assets;
- ➔ To introduce an asymmetric incentive for operational performance for failing to deliver against the target level of performance. Targets will be determined on a project by project basis to reflect the function specification that has been determined by the offshore generator;
- ➔ To allow incremental investments in offshore assets of a value of up to 20 per cent of initial capital cost; and
- ➔ To establish regulatory reporting and ring fencing requirements which reflect better regulation principles.

Further issues for consultation:

Following consideration of responses to the June 2008 Policy Update document and other stakeholder engagement, this chapter also sets out our current thinking, and requests views on the following issues, which will be considered further as Ofgem develops detailed tender documentation and the associated special licence conditions for both enduring and transitional projects:

- ➔ The detailed design of certain specific predefined adjustments to the regulated revenue stream;
- ➔ The detailed design of our proposed operational availability incentive; and
- ➔ Our approach to dealing with the possible abandonment of projects, particularly during the construction of assets;

Questions

We would welcome views on our approach to the following issues:

- ➔ Extending or re-tendering licences at the end of the 20 year revenue stream – what are your views on the proposed options?
- ➔ Indexation and adjustment of the revenue stream – do you have comments on our proposals in respect of:
  - Inflation?
  - Refinancing?
  - Business rates and licence fees?
- ➔ What are your views about dealing with the late delivery of onshore reinforcement works by onshore TO/DNOs through a liquidated damages provision?
- ➔ How can our detailed proposal on the availability incentive be further refined and improved?
- ➔ How should Ofgem appropriately respond to persistent poor performance by an OFTO, and how should any revocation mechanism be designed?
- ➔ What are your views on our proposal to manage the risk of OFTO abandonment through the OFTO of Last Resort scheme and construction securities?

Introduction

3.1. As discussed in Chapter 1 of this document there were some respondents to the June 2008 Policy Update who raised concerns about the Government's decisions on the overall approach to the offshore transmission regulatory regime. The Government's rationale for its approach has been explained previously and this has been supplemented with further detail in Chapter 1. This chapter will therefore only deal with issues concerning the detailed design of the regulatory regime.

3.2. **The majority of issues discussed in this chapter will ultimately be implemented through the Special Conditions of the transmission licence.** With some limited exceptions, Special Conditions will be agreed bi-laterally between the Authority and the OFTO at the time that the licence is granted and will to a large degree be informed by the tender process that leads to the OFTO's appointment.

3.3. In response to the June 2008 Policy Update, we have received and considered various views on the design of the regulatory regime, in particular on performance incentives and potential adjustment mechanisms. In addition to the views expressed by respondents, we felt that further work was required to quantify the possible impact of such mechanisms. The policy update below reflects upon respondents' views and gives our 'minded to' positions and further thinking where appropriate. We would welcome views on our updated proposals.

Summary of views on previous proposals

3.4. The June 2008 Policy Update contained a number of questions and proposals at a greater level of detail than set out in previous consultations. In summary the key points for consultation were:

- Whether there is a need for adjustments to the regulated revenue stream to deal with a range of predictable but uncertain costs that may emerge over the course of the licence period;
- How to deal with incremental increases to capacity resulting from changes to generator requirements;
- How to structure a set of performance obligations and incentives to ensure efficient behaviour by the OFTO in the delivery and maintenance of the offshore connection;
- How to deal with persistent OFTO underperformance; and
- How to reflect generator requirements within the regime.

3.5. Respondents were generally supportive of the initial proposals put forward on the use of adjustment mechanisms and the design of the performance incentives,

but had a variety of views on the detail. We also found that, in a few instances, respondents were unclear about the detail of some of the proposals. Where we believe this to be the case, we clarify our positions in this chapter.

3.6. We reflect respondents' views on an issue by issue basis in the following discussion and highlight where positions have been changed in light of responses. Further detail on responses received to the June 2008 Policy Update is at Appendix 1.

Policy Update

3.7. This section sets out our new and updated policy proposals in relation to the regulatory regime, including the price control regime.

3.8. The detailed design of the regulatory regime needs to reflect the way that certain risks are shared between the main stakeholders for offshore transmission, i.e. the OFTO, the offshore generator, and consumers/network users (via the GBSO). The allocation of risk has been subject to extensive consultation and we have received and considered various views regarding the risk impacts of our proposals. In considering stakeholder comments, we have sought to strike an appropriate balance in the allocation of risk that recognises the parties best placed to manage those risks.

3.9. We do not intend to revisit each individual policy in detail in this update. Therefore, wherever a policy position is unchanged from the June 2008 Policy Update and where we have received no new comments from respondents, we refer the reader back to that document.

Licence award, revocation and the revenue stream

Initial regulated revenue entitlement

3.10. **Our position remains that an OFTO, selected by competitive tender, will receive a regulated revenue stream for 20 years.** This was proposed in the June 2008 Policy Update. We received no responses to the consultation which made new or sufficiently persuasive cases for us to amend our position.

3.11. However, having reviewed stakeholders' responses, we recognise that the statement we made regarding the treatment of the revenue stream in the event of an ineffective competition (paragraph 2.6 of the June 2008 Policy Update) requires further clarification.

3.12. We expect there to be a wide variety of companies or consortia bidding to become OFTOs. However, in order to provide additional certainty to developers,

Ofgem proposes to provide a mechanism for dealing with a scenario where there is not a sufficient level of interest in the tender process for an effective competition to be run.

3.13. In the event that only one competent bidder is identified, the Authority reserves the right to re-run the tender process, in light of feedback from industry as to the reasons for the limited competition and the quality of the bid received. If subsequent tender processes do not involve robust competition, the Authority may seek to appoint the bidder with the most efficient and economic proposal as the OFTO, with a licence awarded for 20 years, but review the level of the winning revenue stream at predefined intervals over the 20 year revenue period (i.e. adopt a price control review approach). This would allow Ofgem to analyse and evaluate the costs and revenues of the OFTO and reflect these in an updated revenue stream[18].

3.14. In the event that no competent bidders are identified, the Authority may, for transitional projects only, have the option of falling back on any OFTO of Last Resort mechanism which may be introduced. Chapter 2 discusses in further detail the idea of an OFTO of Last Resort condition in transmission licences.

Licence award and the revenue stream

3.15. Ofgem set out in its tender process document that it would identify a preferred bidder for each offshore project, both in the transitional and enduring regimes, and that the preferred bidder would be required to satisfy a number of conditions ahead of the licence being granted. In the transitional regime, Ofgem has proposed that this would include that the OFTO has entered into an agreement with the offshore developer to transfer the transmission assets and to demonstrate that the financing proposals set out in its bid are in place. In the enduring regime, Ofgem has proposed that this would include the preferred bidder entering into contractual relations with NGET for the construction of the offshore works, via a Transmission Owner Construction Agreement (TOCA), which would in turn enable NGET to finalise its connection agreement with the offshore developer. We proposed in the June 2008 Policy Update that the most appropriate vehicle for this was via the System Operator Transmission Owner Code (STC), which respondents generally supported. A modification to this effect is currently being consulted on. Ofgem has also proposed that in the enduring regime, the preferred bidder would need to demonstrate that the financing and technical proposals set out in its bid are in place.

[18] This would be similar to a traditional onshore price control and would limit the risk borne by the generator and consumer where the competitive tender process is illiquid. Consistent with onshore regulatory reviews, if an OFTO was not willing to accept a modified revenue stream, Ofgem could refer the case to the Competition Commission.

3.16. The Authority has powers to grant licences under section 6 of the Electricity Act 1989, and we have proposed it would do so once the issues identified have been resolved by the preferred bidder to its satisfaction. Where the assets have not been constructed at the time of the licence grant, we would expect the Authority to grant the licence containing the standard conditions and at the same time initiate the procedure under section 11 of the Electricity Act 1989 to modify the licence to insert the special conditions, which would contain provisions relating to the revenue stream and performance incentives. We would expect that these conditions would only come into effect once the licensee has satisfied certain provisions to the satisfaction of the Authority, including that the transmission assets have been constructed and have been signed off by an independent engineering audit as fit for purpose[19].

Revenue stream profile

3.17. Ofgem intends to require that those entering the tender for the project should bid a revenue stream that has a flat profile. However, this profile may be linked to an inflation index (see paragraph 3.40 below). Ofgem has two main reasons for this proposal:

- A flat profile would provide generators with greater cost certainty for their projects and aid a more efficient competitive process; and
- A flat profile ensures that the OFTO has sufficient revenues committed to the asset in the later years of the revenue stream. This would help to enable Ofgem's proposed performance incentives to remain effective throughout the duration of the revenue stream (for more on performance incentives see paragraph 3.64).

3.18. **We would welcome views on the suitability of this approach.**

Revocation of the licence

3.19. Licence revocation provisions would be set out in Schedule 2 of transmission licences. The powers for the Authority to revoke the licence would be limited to circumstances of:

- Insolvency;

[19] Where projects are 'phased' these special conditions would allow for the revenue stream of the licensee to be turned on in a series of segments, each corresponding to the actual transmission capacity delivered.

- Failure of the licensee to meet its licence obligations, including those relating operational performance, and compliance with an enforcement order;
- The licensee requesting licence revocation;
- Breach of competition law; and
- By the Authority giving a minimum of 18 months notice of revocation to the licensee, to take effect no earlier than the end of the revenue stream period;

3.20. We believe that these revocation provisions provide certainty both for investors in offshore transmission and also the generators who will use the OFTO's services.

End of regulated revenue stream

3.21. At the end of the 20 year revenue stream the OFTO assets would be fully depreciated. At this point the Authority would need to make a further decision on the ongoing regulation of the connection.

3.22. The June 2008 Policy Update proposed that where there is a demonstrable ongoing need for the assets beyond the 20 year revenue stream, the Authority would determine the most sensible course of action (extension of a revised revenue stream or retender) taking into account the ongoing demand for the asset and its statutory duties at the time.

3.23. **Our minded to position on this issue remains unchanged. However, we recognise that a number of respondents have asked for further detail on how the arrangements might work. We now set in more detail our view of the possible scenarios at the end of revenue stream and how these could be dealt with by the Authority through the processes of revocation, extension of the OFTO's revenue stream or retender. We would welcome further views on these more detailed proposals.**

Generator Requirements

3.24. The ongoing demand for the connection would be a key consideration for the Authority when deciding on the regulatory arrangements for the OFTO beyond the end of the 20 year revenue stream (i.e. when assets are fully depreciated). The ongoing demand for the connection will be driven by generator requirements. At this time, we can envisage three likely scenarios for the incumbent generator at the end of the revenue stream:

- Scenario 1 - The incumbent generator no longer wants to continue its business, or has already ceased business;

- Scenario 2 - The incumbent generator believes that it will continue to run generation at a similar capacity as previously (i.e. it will require the transmission assets for a further period without significant capital expenditure on the part of the OFTO); and

- Scenario 3 - The incumbent generator believes that it will require the transmission assets for a further period with an increased capacity. This is likely to occur when the generator is re-planting its turbines (i.e. with significant capital investment required to provide the corresponding transmission capacity).

3.25. In scenario 1, where the incumbent generator has no interest in continuing to generate or has ceased business during the course of the revenue stream, other parties may be interested in utilising the existing transmission asset, or site. The Authority would, therefore, consider new generation developing in the area as 'ongoing demand' when considering what action to take over licensing arrangements at the end of the revenue stream. It would take the same approach as it would towards an incumbent generator under scenarios 2 and 3.

Possible Options at end of 20 year revenue stream

A) Revocation

3.26. In the event that no ongoing demand for the asset is demonstrated, either by the incumbent or by other parties, the Authority would revoke the licence. The Authority would be able to revoke the OFTO licence by giving a minimum of 18 months notice of revocation to the licensee, to take effect no earlier than the end of the revenue stream period (as per our proposals on revocation as set out in paragraph 3.19).

B) Extension

3.27. In the event that there was an ongoing demand for the transmission asset and the OFTO wanted to continue its role, then the extension of the revenue stream would be considered.

3.28. We believe that such an extension of the revenue stream on a price controlled basis would be a reasonable approach in cases where additional capital expenditures by the OFTO are less than 20 per cent of the initial capital cost of the project (in real terms). This is consistent with our proposals on dealing with incremental capacity increases (as set out in paragraphs 2.20-2.25 in the June 2008 Policy Update and paragraphs 3.50-3.57 of this document).

3.29. In the event that the Authority decided to extend the revenue stream of the incumbent OFTO, then Ofgem would carry out a price control review to set a new revenue stream. The new revenue stream would commence at the end of the original 20 year revenue stream and take into account any capital expenditures (up

to the 20 per cent limit) and ongoing operational costs. The price control review would be carried out on the basis of a review of the OFTO's ongoing costs and historic cost data.

3.30. As with arrangements onshore, should the OFTO not agree with Ofgem's assessment of the revised revenue stream, the case could be referred to the Competition Commission.

C) Retender

3.31. In the event that ongoing generator requirements mean that transmission capacity at the connection is significantly increased at the end of the 20 year period, then we believe that re-tender would be an appropriate option. We believe that in cases where additional capital expenditure of beyond 20 per cent of initial OFTO capital cost would be required, then the OFTO licence would be revoked and the whole connection would be retendered.

3.32. We believe the approach would give potential OFTOs certainty about the Authority's approach to dealing with the end of the revenue stream. **We would welcome respondents' views on this proposal, or any other approach that respondents believe may be suitable to address this issue.**

Adjustments to the revenue stream

3.33. We outlined in the June 2008 Policy Update that there had been a variety of views from respondents, to previous consultations on potential adjustments that could be made to the OFTO revenue streams to address post construction risks[20] faced by licensees under either the transitional or enduring regimes. Essentially, they may be represented in terms of:

- 'unknown unknowns' i.e. unpredictable and uncertain costs and savings that may emerge over the licence period; and
- 'known unknowns' i.e. predictable but uncertain costs and savings that may emerge over the licence period.

[20] There will be no consideration for any adjustment to the revenue stream for cost incurred during the construction phase of the project, unless such costs are the result of a change in the generator's specification.

3.34. All respondents to the June 2008 Policy Update who commented on this issue supported the use of revenue adjustments, but there was variation in opinion on the specific areas such adjustments should be applied to. Some respondents also commented that such mechanisms needed to be transparent and open to appeal. Our further thinking on adjustments to the revenue stream is set out below.

'Unknown Unknowns'

3.35. Respondents to the June 2008 Policy Update were supportive of the proposal for dealing with unexpected changes resulting from exceptional events on a case by case basis. There were requests for further clarity on how adjustments for unknown unknowns will be managed.

3.36. Ofgem's position is as per the January 2008 and June 2008 Policy Updates. It is not appropriate to provide for pre-defined mechanisms such as event specific re-openers, to adjust the regulated revenue stream (either up or down) for unexpected changes in costs during operation arising from exceptional events. Such risks may be insured or mitigated by licensees and we remain of the view that it is appropriate to address such events, if necessary, on a case by case basis, in a manner consistent with the licence issued and Ofgem's statutory duties and functions[21] at the time.

'Known Unknowns'

3.37. In the June 2008 Policy Update, we consulted on the treatment of known but unpredictable costs within the regulatory framework ("known unknowns"). Given the variety of views expressed by respondents to previous consultations, Ofgem has been working with its advisers to further consider the issues raised by stakeholders.

3.38. We note that the proposed 20 year revenue stream provides strong incentives to manage costs efficiently, but also increases the exposure of licensees to regulatory and macro-economic risk. We consider that, in some cases, OFTOs may not be best placed to manage such risks and therefore we need to consider how risks might be optimally allocated.

3.39. We consider that there may be merit in providing mechanisms to reallocate risks for a small number of known but unpredictable factors. The following summarises our revised positions on such mechanisms.

[21] Please note that The Authority must, when carrying out its functions, have regard to the need to secure that licence holders are able to finance the activities which are the subject of obligations on them.

Inflation Indexation

3.40. We suggested in the June 2008 Policy Update that we saw some merit in arguments put forward on the inflationary indexation of the revenue stream. As such, we asked for respondents' views on both the most appropriate indexation measure and also on what costs should be indexed. Respondents were generally supportive of this approach, as were Ofgem's advisers. However, views were mixed as to the costs that should be included. Some respondents felt that it would be most sensible only to index operation and maintenance costs, whilst others felt that other costs should also be included.

3.41. Ofgem's advisers have noted that recent PFI deals have progressed on the basis of partial indexation. The financial community has considered this more attractive as it provides scope for competition whilst protecting against major shifts in potentially volatile costs. However, some industry stakeholders support a move to full revenue indexation consistent with the onshore regulatory framework.

3.42. As such, **we are minded to index the revenue stream to the Retail Price Index (RPI) to allow for cost inflation over the period of the revenue stream. We believe that RPI is the most appropriate measure as it is used in the onshore price controls.**

3.43. **However, we seek further views from interested parties as to their preference for full or partial revenue indexation.** For clarity, we set out our definition of full and partial indexation below.

3.44. **Option 1 - Full Indexation**: The whole of the revenue stream would be linked to the RPI.

3.45. **Option 2 - Partial Indexation**: The operation expenditure (OPEX) component of the revenue stream would be linked to the RPI. Only the cost of ongoing operation and maintenance cost would be inflated over the course of the revenue stream.

Refinancing

3.46. Several respondents to the June 2008 Policy Update commented on the inclusion of a pre-defined adjustment mechanism for post construction refinancing. Depending on the conditions in the capital and credit markets at the time, the benefits of refinancing could be significant for the OFTO. As such an adjustment mechanism could be used to protect consumers/generators in the event that OFTOs make excessive profits on the back of re-financing gains.

3.47. Respondents commented that any mechanism to claw back refinancing gains would need to leave a financial incentive with the OFTO to pursue such refinancing

opportunities. We agree with this view and believe that an adjustment mechanism should require the sharing of refinancing gains.

3.48. As such we have considered potential sharing mechanisms. We have identified possible sharing proportions based on current HM Treasury guidance for public sector procurers drafting PFI contracts:

- Until recently, the guidance provided by HM Treasury to public sector procurers was to share any refinancing gains 50:50 between the developer and the procuring authority.[22]
- In October 2008 it became mandatory for new PFI contracts to share the first £1 million of any gain 50:50, the next £2 million 60:40 and any further gains 70:30 in favour of the procuring authority.[23]

3.49. **Based on respondents' views we are minded to include an adjustment mechanism for refinancing, which stipulates that the gains from post construction refinancing are shared between the OFTO and the consumer/generator. However, we seek any further views respondents have on the most suitable level of sharing of such gains.**

Incremental Capacity Increases

3.50. We set out our view on the treatment of incremental capacity increases in both our January and June 2008 Policy Updates. A slight majority of respondents supported the 20 per cent cap, with the minority arguing it was an arbitrary figure or not applicable in all cases.

3.51. Some respondents understood that any request for an incremental capacity increase of over 20 per cent would require a retender of the whole project, with the potential result that the original OFTO would have its licence revoked and its transmission assets transferred. This is not the case. Only the additional capacity would be re-tendered separately. The existing connection would remain with the original OFTO.

3.52. A number of respondents sought clarification as to how approved incremental capacity increases would be remunerated through the 20 year revenue stream. Our position is that the efficient costs of constructing and operating the additional

[22] http://www.hm-treasury.gov.uk/d/pfi_sopc4ch31-37_210307.pdf

[23] http://www.hm-treasury.gov.uk/d/sopc4_addendum171008.pdf

capacity will be provided for through an adjustment to the remainder of the revenue stream. However, we welcome respondents' views on this.

3.53. To reflect this policy proposal we have proposed that as a condition of its transmission licence, an OFTO should have an obligation to offer terms to NGET for transmission services that NGET would require in respect of a user application for connection to (or for modification to an existing connection to) an offshore part of the GB transmission system. Under the proposed STC process, NGET is able to make a NGET Construction Application to relevant, existing STC parties (onshore transmission licensees and OFTOs), for transmission services that NGET considers would be required to offer terms in response to an application from an offshore generator for connection to, or modification of, an existing connection to the GB transmission system. We have also proposed that the OFTO should be permitted to refuse to offer terms to NGET when the OFTO considers that the works required on its offshore transmission system would exceed 20 per cent of the original investment cost of the offshore transmission system.

3.54. Consistent with the current arrangements, an offer made by an OFTO to NGET is required to reflect the works reasonably required to provide a new connection (or modify an existing connection). Any disputes in respect of the failure of NGET and the offshore generator to enter into an agreement would require Ofgem to assess the reasonableness of relevant offers (from other STC parties) as part of a determination decision. An offer made by an existing OFTO would also be subject to an Authority decision in respect of a request to amend the terms of that OFTO's transmission licence, so any attempt by the OFTO to carry out an investment that is either beyond the 20 per cent threshold, or not economic and efficient, could be rejected by the Authority.

3.55. The proposed transmission licence and STC obligations permit an existing OFTO to refuse to offer terms to NGET if the works required on the offshore transmission system would be outside the permitted incremental capacity increase. On receipt of a refusal from an OFTO to offer terms on these grounds, we propose that NGET should progress the offshore generator's application in accordance with the proposed two stage connection application process (i.e. make assumptions about the offshore works at the initial stage and trigger a tender process if the initial stage offer was accepted by the offshore generator).

3.56. **As stated in the June 2008 Policy Update, we are minded to allow an appointed OFTO to undertake incremental investment up to a value of 20 per cent of the initial capital cost over the life of the offshore transmission systems without being subject to a further tender exercise. We have received no responses which made new or sufficiently persuasive cases for us to amend our position. However, we want to clarify that, in practical terms, it will ultimately be for the Authority to make the decision on whether or not the investment falls within this threshold.**

3.57. We refer readers back to the June 2008 Policy Update for further detail on this policy.

Other volatile and unpredictable costs

3.58. Some respondents to the June 2008 Policy Update suggested that business rates and licence fee costs be straight pass through items. We believe that onshore arrangements provide a precedent for the inclusion of these costs as pass through items. Furthermore, we recognise that these costs are not controllable for the OFTO and we are minded to agree with respondents and include them as a pass through item**.**

3.59. Several respondents considered that insurance premiums should be a cost pass through item, because of the current volatility of the marine insurance market. **However, we do not propose to include insurance costs as a pass through item as this would reduce the incentive for the efficient procurement of insurance services and prevent potential OFTOs developing a comparative advantage in managing such insurance risk.**

3.60. **We do not consider that there are any other items that should be considered for pre-defined adjustments.**

Variation on Special Conditions through the tender process

3.61. Ofgem stated in its consultation document on the competitive tender process that the only area of potential bid negotiation that it might expect during its assessment of each tender would be in respect to the Special Conditions of the individual offshore electricity transmission licence being tendered. Such negotiation would specifically cover the revenue allowances and performance incentives, which may be adjusted by Ofgem for each tender (i.e. on a project specific basis).

3.62. Ofgem recognises that in the post-bid receipt period it may be necessary for it to enter into a period of structured discussions with bidders to explore potential benefits that could be obtained through any alternative solutions that are offered in this area. This important process would explore whether a potential solution would be in the best interests of consumers and relevant generators, as well as to ensure that all bids are as closely matched as possible to enable Ofgem to evaluate in a robust way.

3.63. However, even in this process, Ofgem anticipates only limited variations from the project's default positions which will be identified prior to tender commencing.

Performance Obligations, Incentives and Penalties

3.64. The June 2008 Policy Update proposed two performance obligations. We sought views on the following potential incentive mechanisms:

- a capacity delivery incentive; and
- an asymmetric operational availability incentive.

3.65. Views were sought on the appropriate structure and level of OFTO performance incentives, specifically on how much of the regulated revenue stream should be exposed to such incentives.

3.66. Given the variety of views expressed by respondents to previous consultations, we felt that further work was required to produce a more detailed view of our proposals on performance obligations.

Delivery Incentives

3.67. Respondents had mixed views in regard to a delivery incentive. Some supported them, while others felt that OFTOs would be heavily incentivised to complete construction anyway because they have significant financing costs which can only be serviced by receipt of the revenue stream on successful completion of the asset.

3.68. Given the weight of respondents' views on not having a delivery incentive, which are also supported by analysis undertaken by Ofgem's advisers, we are minded to revise our position on this issue. An OFTO's costs will naturally increase in the event of late delivery. The key cost for the OFTO is the price of interest during construction. In the event of delay, the OFTO will not be able to recover the incremental financing costs because its capacity charges will already have been fixed in the tender process. **Therefore, our minded position is that there be no specific delivery incentive on the OFTO.**

3.69. As described above, we recognise that delays in the commencement of the revenue stream may provide a strong incentive for the OFTO to deliver assets in a timely manner. This danger of incurring additional financing cost also applies in the event of delays due to the actions of an onshore TO/DNO (i.e. the scenario whereby the OFTO completes its works on time, but the onshore TO/DNO is late in delivery of the necessary onshore reinforcements). **As such we propose that this risk would be better managed through a liquidated damages provision, which will give the OFTO comfort that compensation will be forthcoming when such delays occur. We have updated our proposed drafting of the STC to reflect such a provision and seek views from stakeholders on the revised version of the STC in separate Annex 7.**

Operational Incentives

3.70. Respondents are agreed that there is a need for an availability incentive to ensure the prompt restoration of the connection in the event of an outage. **As such, our position is to implement an asymmetric performance incentive**. However, some respondents sought further detail on the design of the mechanism. As such, we set out an outline of what the scheme might look like below, and provide a more detailed explanation in Appendix 5. We would welcome any detailed views on the suitability of the incentive scheme set out below and in Appendix 5.

Target Availability

3.71. We received a range of views as to the most appropriate target level of availability for the mechanism. In addition to stakeholders' views, we have also considered availability data on IFA[24], Moyle[25] and Basslink[26] in forming a view on achievable availability levels for sub-sea cables. Availability on these electricity interconnectors is, on average, around 97 per cent to 98 per cent (for details see Appendix 6). We believe these assets to provide a good approximation of the likely technical capabilities of offshore transmission assets. **We believe it reasonable to base our availability target on this data. As such, we are minded to set the default availability target at 98 per cent.** We also believe that it is appropriate to consider the availability target on a case by case basis as part of each individual tender.

Banking Mechanism

3.72. We have previously proposed implementing a banking/permit mechanism to allow the OFTO to manage outage risk over the period of the maintenance cycle. The banking mechanism will allow availability in excess of the target level to be banked and carried forward into a subsequent period. This 'excess performance' will be redeemable against any underperformance in subsequent years. Respondents were supportive of such a mechanism, but sought further clarification of how it might function. We have therefore set out how the mechanism might work in Appendix 5. **We seek respondents' views on the suitability of the proposed approach, and would welcome alternative suggestions on the functioning of the mechanism.**

[24] IFA (Interconnexion France Angleterre), The Interconnector between France and GB
[25] Moyle, The Interconnector between Ireland and GB
[26] Basslink, The Interconnector between Tasmania and mainland Australia

Exposure of revenues

3.73. We consulted previously on exposing the OFTO's revenue stream to penalty costs of up to 10 per cent per annum. Respondents held mixed views on this level of exposure, with some supporting it and others arguing it was too high or too low. We believe that the 10 per cent cap on penalties reduces the risk for the OFTO of cash-flow problems. This is confirmed by Ofgem's adviser's financial modelling (which is attached as appendix 8) which suggests that several years of a 10 per cent penalty would not threaten the financial stability of the OFTO (even with gearing of 90 per cent), but would still provide sufficient incentive for corrective behaviour. **As such, we reaffirm our proposal to expose the OFTO to an availability incentive of up to 10 per cent of its yearly regulated revenues.**

3.74. Whilst it is important to limit the OFTOs exposure to the incentive so as to ensure its financial stability, it is also important to design a mechanism that keeps the OFTO incentivised in all outage scenarios. In the event of a major outage the revenue cap would be reached after a short period leaving the OFTO without an incentive to rectify the problem that is causing the unavailability. In this 'extreme scenario', we propose that the banking mechanism will be used to carry forward the excessively poor performance into the subsequent period. This poor performance would then be penalised in the subsequent year, again up to a maximum exposure of 10 per cent of revenues, thus ensuring that the OFTO stays incentivised to rectify problems even during extended outages.

Maintenance of assets towards the end of the regulated revenue

3.75. As designed, penalties for poor performance would be paid in the years subsequent to the poor performance. We recognise that this design, though beneficial for the OFTO's management of outage risk, may reduced the incentive for the OFTO to effectively manage the maintenance of its assets in the later years of the revenue stream. We believe this to be the case because once the asset becomes fully depreciated at the end of the revenue stream then there is no revenue flow against which to penalise the OFTO for any poor performance.

3.76. In order to deal with this potential problem we would require the OFTO to commit capital that would be at risk in the last years of the concession period. This would be done through a 'performance bond'. In essence, the OFTO would deposit money that earns interest, but such funds do not revert back to the OFTO except upon satisfactory compliance with a series of conditions relating to the end of the concession period. The conditions in this case would relate to the satisfactory maintenance of the assets in the latter years to the concession period.

3.77. **This policy will be implemented as a special licence condition, we will publish a draft of this condition in the New Year. Prior to detailed drafting, we seek views on the suitability of our proposed approach to maintain OFTO performance in the latter years of the revenue stream.**

Continued Poor Performance

3.78. The banking arrangements and performance bond described above provide financial incentives for the OFTO to deliver high availability levels, but these may not be sufficient to ensure that all OFTOs choose to maintain acceptable performance standards over the period for which they are licensed.

3.79. We consider that it is important that the licence contains adequate protections against persistent poor performance of the offshore network.

3.80. One respondent suggested that generators should be able to contribute towards the costs faced by OFTOs in addressing performance issues on the transmission network. While we consider this option is open to generators, through a bi-lateral negotiation, we note that this may diminish the effectiveness of the operational availability incentive and involve significant risk transfer from the OFTO to the generator.

3.81. In extreme circumstances, we consider that it may be appropriate that the Authority seeks to revoke the licence of an OFTO whose network is demonstrating persistently poor performance, in order to ensure that the offshore generator connected to the network is not unduly disadvantaged. The circumstances under which the Authority would consider revoking a licence will be clearly set out ex ante, so that they can play a part in incentivising the OFTO (and its owners/investors) to take action (e.g. through investors' step in rights) before the Authority withdraws the licence through revocation procedures. **As such, we seek respondents' views on the appropriate design for such a revocation mechanism.**

Review of incentives

3.82. One respondent suggested that incentives should be subject to review every 2 years and be open to challenge. We do not consider this to be appropriate but, as with its proposals on risk, Ofgem intends to retain flexibility in targets determined on a project by project (i.e. case by case) basis to reflect the functional specification that has been determined by the offshore generator.

Energy losses

3.83. Respondents generally agreed that performance relating to energy losses should be addressed at the specification stage. However, some respondents suggested the regime should include a means of ensuring that the energy loss performance set out in the specification is delivered.

3.84. Ofgem has proposed that bidders should set out a technical proposal as part of any bid submitted in response to an invitation to tender. As part of such a technical proposal the bidder would be required to provide information about the design of its

proposed offshore transmission system and the proposed approach to operating and maintaining the transmission assets over the regulatory period. The detailed proposals in respect of the tender documentation are being developed but should be expected to include information requirements in respect of the energy losses associated with any proposed design solution. Ofgem intends to take account of energy losses associated with each bid when assessing offshore transmission tenders.

3.85. Ofgem notes that onshore the operational incentive relating to transmission losses forms part of the overall SO incentive scheme which applies across the GB transmission system. Ofgem is aware that the current SO incentive scheme will end on 31 March 2009 and that work is progressing to develop proposals for a new SO incentive scheme from 1 April 2009. Subject to the outcome of this review, Ofgem has not identified any reason for an additional or a different type of operational incentive in respect of transmission losses associated with offshore transmission systems.

Abandonment Risk

3.86. We recognise that a risk for generators is the possibility of abandonment by the OFTO either during construction or operation. It is important that offshore generators have confidence that these risks are managed effectively.

3.87. We have set out in previous consultations that Ofgem's evaluation of bidders as part of the tender process will look to assess technical competence and financial standing in order to provide confidence that the OFTO that is appointed is able to deliver and continue to operate the offshore transmission assets. In addition, we propose that OFTOs should be subject to ongoing financial ring fence obligations to ensure that signs of financial distress are identified at an early stage.

3.88. Nevertheless, the risk of abandonment can never be completely removed. Accordingly, it is important that the impacts of abandonment are also minimised. We now outline the regulatory instruments that might apply in the event of OFTO abandonment.

OFTO in Administration

3.89. If the OFTO fails during any stage of the project and then enters administration - Ofgem would expect to work with the appointed administrator to ensure the timely restoration of the connection (see next paragraph). We also note that the Energy Act 2004 established an energy administration regime which would see an energy administrator being appointed to manage the company, one of the objectives being to secure that its transmission system continues to be maintained as an efficient and economic system. The energy administration scheme applies to all GB registered companies and to non-GB companies only in respect of affairs, business and property

in Great Britain (section 154(4)EA 2004). A non-GB company is defined in section 171(1) EA 2004 as an unregistered company incorporated outside GB.

Appointment of a new licensee

3.90. We would expect that the administrator or special administrator may approach Ofgem to ensure a new licensee is appointed to operate the asset. This could be achieved by:

- the administrator selecting a company to take on the asset and asking Ofgem to grant that company a licence. In this case Ofgem would assess the technical and financial competencies of the proposed licensee and make a decision in line with its statutory duties at that time; or
- the administrator asking Ofgem to run a tender exercise, so as to identify a new OFTO.

Construction Securities

3.91. We set out in the June 2008 Policy Update that Ofgem expects OFTOs to provide sufficient security to meet the costs of the offshore construction works in the event of abandonment during construction. We envisaged that the security would be drawn down to fund Ofgem's costs of running the further tender process and also be used to offset any increased costs identified by the newly appointed OFTO. The June 2008 Policy Update consulted on whether a full 100 per cent security was an appropriate level. We also set out the proposed STC text for this mechanism.

3.92. Stakeholder responses were broadly supportive of the approach that we proposed in the June 2008 Policy Update. However, several respondents expressed concern that the proposed level of the security would deter investors as it would require a financial commitment of 200 per cent of the overall project cost. Some respondents also request clarification on how the securities would be used in practice to ensure that transmission services are provided.

3.93. We have considered the responses to the June 2008 Policy Update and other stakeholder engagement on these issues. We note that transmission investment is a relatively small proportion of the overall costs of offshore renewables and recognise the importance of protecting consumers' interests more widely. We believe that it is important that the OFTO demonstrates a commitment to complete construction of the offshore transmission infrastructure. As a consequence, we consider that it is desirable to have some form of construction security provided. However, we acknowledge the need to strike the correct balance between managing the risk of abandonment and encouraging investment in offshore transmission infrastructure.

3.94. **We consider that partial security of around 15-30 per cent of the expected construction costs would strike this balance by incentivising the**

OFTO sufficiently to maintain commitment to deliver the project without unduly deterring investors. We seek stakeholders' views on this revised position and the suitable level of security payments.

3.95. As per the June 2008 Policy Update, we consider that it may be appropriate that these securities would be used to fund Ofgem's costs of running the tender exercise to appoint an alternative OFTO in the first instance (assuming such a tender were necessary) and that any remaining monies would be provided to the newly appointed OFTO to offset its capital costs of completing the transmission works. In the event of abandonment post construction, Ofgem would recover its tender costs through its proposed cost recovery powers (i.e. from the bidders, generator and the winning OFTO would cover the costs). **We seek stakeholders' views on this approach**.

3.96. We recognise that running a further tender exercise may introduce delays to the timing of the offshore generation development. However, the impact of any delay is unclear since there are several other factors to consider, for example the timing of the completion of onshore works. In previous consultations we have indicated that generator affiliates may participate in the tender processes. Given the EU Energy Council agreement on the Third Package of Legislation generator affiliate ownership of OFTO assets will likely become prohibited. In the light of this, we are considering whether an OFTO of Last Resort mechanism as set out in Chapter 2 of this document might be appropriate for enduring projects in these circumstances, should ownership unbundling become a legal requirement. We would welcome respondent's views on this proposal and how it might operate.

Financial security of OFTOs

3.97. We note that as a part of the proposed offshore transmission regime, an OFTO will be entirely reliant on GBSO payments for transmission services. We recognise the importance of ensuring that the GBSO pays OFTOs for their transmission services in a timely manner. We are also aware that a late payment by the GBSO could have serious implications on an OFTO's financial position (e.g. temporarily remove an OFTO's ability to pay its creditors).

3.97. We note that there are not specific provisions as part of the current STC framework to address this issue. We are also unaware of any significant or repeated issues in respect of late payment by the GBSO to another transmission licensee under the current arrangements. However, we consider that with an increasing number of STC parties (with varying financial structures) and additional payment flows, it may be appropriate to define mechanisms as part of the STC to require NGET to provide security cover for OFTOs. **We particularly invite views on whether security cover should be available to an OFTO in the event of a late payment by the GBSO.**

3.98. Detailed drafting for a STC change proposal has not yet been developed for GBSO late payment security arrangements. We have indicated the parts of the STC which we consider could be amended to provide for this type of security cover for OFTOs (see separate Annex 7).

Decommissioning

3.99. OFTO's will be subject to the terms of the decommissioning regime laid out by the Energy Act 2004. Under this regime, the Secretary of State will require them to prepare a fully costed and consulted decommissioning programme, detailing how they intend to decommission assets when they come to the end of their operational life. Bidders should be aware of the financial obligations associated with decommissioning and decide how best to manage any risks associated with decommissioning.

Generator affiliates and regulatory reporting

3.100. As presented in Chapter 2 of this document our intention has been that Generator affiliates would be able to bid to be OFTOs provided that a separate legal entity was set up, which would be subject to financial ring fencing. However, we also noted that the regulatory regime will be subject to the requirements of EU legislation. As it looks likely that the EU Energy Council agreement on the Third Package may well lead to the requirement for ownership unbundling, generator affiliates would be prohibited from owning offshore transmission assets.

3.101. We also stated that OFTOs would have to comply with similar regulatory reporting requirements as onshore transmission owners, although given the simpler nature of OFTO businesses Ofgem's approach would be lighter than onshore. This remains our view.

Changes to the Special Conditions of NGET Licence

3.102. As explained above, a good deal of the policy positions set out in this chapter will be implemented through a series of Special Licence Conditions which will be included in the offshore transmission licence. These conditions will be developed by Ofgem in time for the first licence grant in for the first transitional projects.

3.103. However, there are some limited changes to the special conditions in the licences of the NGET that may be required to implement the proposed regime. In some cases, changes are required to extend the GBSO's role to the territorial sea and REZ. This includes fulfilling the GBSO's function in collecting revenue for all TO businesses including the OFTOs. We are also proposing new special conditions to support the enhanced business separation between the GBSO and a National Grid OFTO business. We are also considering new provisions to support the enhanced

business separation between GBSO and National Grid and how these provisions might best be implemented.

Revenue Restrictions

3.104. The revenue restrictions in the licence of NGET set out the charges and cost pass through of the revenues earned by Scottish Power Transmission Limited (SPTL) and Scottish Hydro-Electric Transmission Limited (SHETL). These conditions need to be updated to include pass through items for the revenues earned by OFTOs.

Business separation requirements for the GBSO

3.105. We are proposing a new prohibition on NGET (and any NGET subsidiary companies) from bidding for an offshore transmission licence. We note that as the contractual interface with users of the GB transmission system (an NGET role that is proposed to be extended offshore), NGET would have information that would be advantageous to any party that was preparing a bid for an offshore transmission licence.

3.106. However, we do not consider that it would be proportionate to prohibit National Grid or any of its other subsidiary companies (except NGET) from bidding to become an offshore transmission licensee. We consider that the level of transparency in National Grid's business structure that is required to ensure confidence in the role of NGET as GBSO, could be achieved through business separation. We welcome views on this.

3.107. Ofgem therefore proposes to add obligations as special conditions to NGET's transmission licence. The proposed new special conditions are substantially based on existing business separation obligations in the gas transmission licence and other transmission licensees' electricity transmission licences. **We would welcome respondents' views on Ofgem's proposal to introduce business separation obligations as special conditions to NGET's transmission licence. We also seek views as to the stage at which such obligations should become effective.**

3.108. Drafting for these conditions is set out Annex 9.

Schedule 1

3.109. Annex 9 also gives details of the proposed changes to Schedule 1 of NGET's licence which will allow for the expansion of the NGET role as GBSO to the territorial sea and the REZ.

Next Steps

3.110. We believe that we have now set out a comprehensive overview of the design of the regulatory regime for offshore transmission, and have reached developed positions on all issues. There remain some details where we have asked for further stakeholder views for our consideration prior to the publication of the final consultation.

3.111. Also, in order to develop the framework for the Special Licence Conditions Ofgem intends to set up a Special Licence Condition working group, through which stakeholders will be able to contribute to the drafting of the Special Conditions. We envisage that this group will first meet in early 2009. In the first instance, we would invite parties interested in participating in the working group to contact Ofgem and register their interest.

3.112. If you are interested in participating in the group, please contact Sam Cope on 020 7901 7239 or by email at Sam.Cope@ofgem.gov.uk.

4. Standard Industry Framework

Chapter Summary

This chapter provides an overview of proposals for changes to the standard conditions of the transmission licence, the security and quality of supply standard and the Industry Codes (the 'relevant documents'), which the Secretary of State is consulting on, to implement the proposed offshore transmission arrangements. It also sets out our proposed approach to incorporating normal governance changes. It focuses on five key areas of the offshore transmission regime which we consider need to be reflected across more than one relevant document. The chapter also covers the main code specific proposed changes. Details on how these changes have been drafted and other changes of a minor nature to individual codes and licences are contained in the Annexes. The change proposals have been developed with the assistance of NGET, the respective owners of the codes and industry working groups.

Questions

➔ Does the drafting in the annexed codes accurately reflect the policy positions set out in this document?

➔ Are there any other modifications which you consider appropriate for implementing the new regime?

Introduction

4.1. This chapter describes the standard framework for transmission arrangements and the development considered appropriate for implementing the proposed offshore transmission regime. The standard framework is defined by the standard conditions of the transmission licence, the security and quality of supply standard (GBSQSS) and the industry codes[27]. In this document, the transmission licence, GBSQSS and industry codes are collectively known as the 'relevant documents'.

4.2. Section 90 of the Energy Act 2004, allows for the Secretary of State, amongst other things, to make modifications to the transmission and distribution standard licence conditions and industry codes which he considers appropriate for purposes connected to offshore electricity transmission.

[27] The industry codes consist of the BSC, CUSC, Grid Code, STC, Distribution Code and DCUSA.

4.3. We consulted on an initial draft of change proposals to all the relevant documents in the June 2008 Policy Update. We have reviewed the initial proposals in light of consultation responses, further development of offshore transmission policy and our consideration of practicalities of implementation. We have also taken account of changes under normal governance that have been implemented since our previous consultation. Details of comments made by respondents to the June 2008 Policy Update are in Appendix 1.

4.4. With the assistance of the Offshore Transmission Standard Conditions working group (OTSCWG) we have developed change proposals for the transmission licence standard conditions. With the assistance and drafting resource of the owners of the other relevant documents, we have developed change proposals for the codes and GBSQSS.

4.5. The changes that we are proposing to the relevant documents are published as a series of annexes to this document. Each annex contains:

- a summary of the key differences from our initial change proposals for the relevant document;
- a list of the changes made under normal governance that have not yet been reflected in the baseline text; and
- the proposed amendments to the relevant document, marked up on a defined baseline version of that relevant document.

4.6. The table below sets out the relevant documents to which changes are proposed, the document owner, and the reference number of the relevant annex.

Relevant Document	Document Owner	Annex Reference Number
Transmission Licence Standard Conditions	Ofgem	Annex 1
BSC	Elexon	Annex 2
CUSC	NGET	Annex 3
DCUSA	DCUSA Limited	Annex 4
Distribution Code	Distribution Licensees	Annex 5
Grid Code	NGET	Annex 6
STC	NGET, SPT and SHETL	Annex 7
GBSQSS	NGET, SPT and SHETL	Annex 8

We invite views on all aspects of the drafting presented in the Annexes.

4.7. In addition to the draft text we are also considering how and when the changes proposed should take effect, particularly with respect to the transition between the introduction of changes at Go-Active and the full implementation of the regime at Go-Live. This also includes the process for developing code procedures once the

code text has been finalised. Further details of our proposals in relation to this aspect will be set out in the next consultation.

Development of Change Proposals – General Approach

4.8. The proposed changes to the relevant documents have been deliberately limited to those changes that are considered appropriate for the implementation of the proposed offshore transmission regime. In areas where we have previously identified that different arrangements are justified offshore, we have considered in detail how policy objectives can be achieved within the current standard framework.

4.9. We appreciate the considered responses to our previous consultation on the change proposals for the relevant documents. The comments and questions included in responses were a key component of our development work. We also assessed consistency of the change proposals:

- with evolving offshore transmission policy;
- within each of the relevant documents; and
- between relevant documents.

4.10. The June 2008 Policy Update set out our proposed changes to the standard conditions of the transmission licence that are appropriate for implementing the offshore transmission regulatory regime. We have continued to develop our thinking in the light of the consultation responses. We have also continued to meet with the OTSCWG to further review the proposed draft standard licence conditions. This continued stakeholder engagement has informed the proposed licence text that has been set out in Annex 1.

4.11. For each of the industry codes we reviewed changes to the baseline text[28] (implemented via normal governance arrangements since our June consultation). We reviewed each of these changes and assessed if it was appropriate to apply offshore. For each of the change proposals that has been approved for implementation under normal governance arrangements, we do not consider that different arrangements would be required offshore. Where possible, changes under normal governance have been reflected in the text that has been used as the baseline for the offshore transmission change proposals. We have included

[28] Baseline text refers to the documents against which the proposed changes are shown

references to changes under normal governance that have been implemented but have not been reflected in the baseline text for the offshore transmission change proposals in each of the Annexes.

4.12. Our review of all documents has indicated that there are changes to five key areas that need to be reflected across more than one document. These are dealt with next in this Chapter. For other proposed changes specific to only one relevant document we have provided a summary in this chapter under the appropriate document title. The summary highlights proposed changes from the June 2008 Policy Update proposals. Please refer to the June document for details of those proposals.

Cross Document Issues

4.13. There are five key areas of the proposed offshore transmission regime that we consider need to be reflected across more than one relevant document. They are:

- the connection application process;
- implementation of proposed 20 per cent limit on development of offshore transmission systems before further tender is required;
- transmission access (including compensation arrangements);
- reactive power capability range; and
- the treatment of 132kV connected licence exempt offshore generators.

4.14. This section provides an overview of our policy intent for these five areas and sets out the rationale for our cross document implementation proposals. We have developed specific change proposals for each of the relevant documents based on these cross document implementation proposals which are contained in the relevant Annexes to this document. This section also provides an update on the consistency check work that we are continuing to progress.

Connection Application Process

4.15. The June 2008 Policy Update presented updated proposals for a two stage connection application process for offshore generators seeking a connection from NGET. We note that:

- NGET's obligations to offer terms for connection to and/or use of the GB transmission system are defined in the transmission licence and reflected in CUSC and Grid Code obligations;

- The transmission licence sets out obligations for TOs to offer terms to NGET when required to enable NGET to offer terms to a user seeking connection to and/or use of the GB transmission system. These transmission licence obligations are reflected in the STC; and

- Should the user ask NGET to provide a connection via a distribution network, then the relevant arrangements would be defined in the DCUSA and Distribution Code.

4.16. We have reviewed the proposed changes to the transmission licence, CUSC, STC, Grid Code, DCUSA and Distribution Code (the 'Connection Application Process Relevant Documents') to establish if they are consistent with our offshore transmission proposals in respect of the two stage connection application process and provide an efficient implementation option.

4.17. We have also considered responses received to our last consultation, discussions with the Standard Conditions working group and relevant document owners to further develop our implementation proposals.

4.18. Informed by this review, we are minded to require that NGET should:

- have a single transmission licence standard condition that requires it to offer terms for connection to and/or use of the GB transmission system;

- make assumptions about the likely offshore works required (when the OFTO has not been appointed) and include this information in the first offer made to an offshore generator;

- clearly define the scope of the offer that will be made to a user at each stage of the connection application process;

- be able to submit applications (under the STC) to relevant transmission owners at both stages of the connection application process;

- be able to seek amendments to any relevant construction agreement with an onshore transmission owner that are necessary because the actual construction works defined by the OFTO are different to assumptions that NGET made at the initial offer stage;

- have sufficient flexibility in a bilateral connection agreement with an offshore generator to be able to add details of the offshore works at the second stage to reflect the actual construction works defined by the OFTO; and

- have sufficient flexibility in a bilateral connection agreement with an offshore generator to be able to amend the scope of the onshore works if required because the actual construction works defined by the OFTO are different to assumptions that NGET made at the initial offer stage.

4.19. We have developed the drafting of each of the Connection Application Process Relevant Documents that we consider achieve these overall aims. Our revised proposals are included within the annexes to this document on which we invite views.

Implementation of Proposed 20 per cent Limit on Development of Offshore Transmission Systems

4.20. The June 2008 Policy Update proposed that an OFTO should be permitted to develop its offshore transmission system provided that the additional investment costs do not exceed 20 per cent of the original investment costs[29]. We note that such developments of an offshore transmission system are likely to be triggered by an application from a user to NGET, for connection or modification to a connection to the GB transmission system.

4.21. We previously proposed that there should be an obligation in Section E of the transmission licence for an OFTO to offer terms to NGET in respect of applications requiring development of an offshore transmission system. We also proposed that current STC obligations that set out detailed processes used by NGET to seek any offers from another transmission licensee for transmission services needed for a user application, should also apply to an OFTO where the user is seeking connection to or modification to a connection to an offshore transmission system.

4.22. We have reviewed the proposed changes to the transmission licence and STC to establish if they are consistent with our offshore transmission proposals for the proposed 20 per cent limit and provide an efficient implementation option. We have also considered responses received to our last consultation, discussions with the Standard Conditions working group and relevant document owners to further develop our implementation proposals.

4.23. We consider that enduring obligations for an OFTO to offer terms to NGET are relevant. However, we believe that an OFTO should be able to refuse to provide an offer to NGET if the additional costs of developing the offshore transmission system would be 20 per cent or greater of the original investment costs. We consider that in such circumstances NGET should prepare an offer for the generator on the basis that there would be a need for the Authority to competitively tender for the offshore transmission system works.

[29] We recognise that the permission to carry out the original offshore transmission system development would have been granted following a tender process in respect of an earlier user application for connection to the GB transmission system.

4.24. We have developed the drafting of the transmission licence and STC that we consider achieve these overall aims. Our revised proposals, for comment, are included within the annexes to this document.

Transmission Access (including Compensation Arrangements)

4.25. The June 2008 Policy Update set out proposals in respect of the standard transmission access product that NGET should offer to offshore generators (unless the offshore generator requests otherwise). We acknowledged the potential interaction with developments under the TAR.

4.26. We note that any contractual agreement between NGET and an offshore generator would need to include definition of:

- the offshore generator's rights to connect to and use the GB transmission system;
- the offshore generator's entitlement to compensation if its access to the GB transmission system is curtailed due to a problem on the GB transmission system[30]; and
- any conditions that NGET reasonably requires.

4.27. We previously proposed that the existing CUSC access product, Transmission Entry Capacity (TEC), should be adapted for offshore generators. The basis of this proposal was to ensure that the standard transmission access product for offshore generators should be defined in the CUSC and should:

- not require offshore generators to incur the costs associated with having fully firm transmission access rights (eg the costs of redundancy in the design of the transmission system); and
- align compensation arrangements for the offshore generator with the level of redundancy in different parts of the transmission system using the principle of cost reflectivity.

[30] We note that the current CUSC compensation arrangements do not apply in respect of interruptions to a user's access that are caused by a problem on a distribution system. We have not identified any justification for a different approach offshore.

4.28. We note that since our last consultation, changes have been implemented under normal governance arrangements, to the special conditions of the transmission licences[31] and to the STC. As a result, the owner of the transmission system that causes an interruption to a user's access, is responsible for funding the associated compensation payments made by NGET to the generator under the CUSC.

4.29. We have reviewed the proposed changes to the CUSC and relevant changes to the STC to establish if they are consistent with our offshore transmission proposals and provide an efficient implementation option. We have also considered responses received to our last consultation and discussions with relevant document owners to further develop our implementation proposals.

4.30. Informed by this review, we are minded to develop the standard framework such that:

- an offshore generator should be able to submit a claim to NGET for compensation under the CUSC in respect of any the offshore generator's access to the GB transmission system;
- NGET should be able to fully assess the offshore generator's claim and be able to investigate the cause of the access restriction;
- if the cause of an offshore generator's access restriction is an interruption on any part of the GB transmission system that entitles the generator to compensation under the CUSC (as set out in the offshore generator's bilateral agreement with NGET), the offshore generator should receive compensation in accordance with the CUSC and payments should be funded by the owner of the transmission system that caused the access restriction;
- if the cause of an offshore generator's access restriction is an interruption on a part of the GB transmission system that does not entitle the generator to compensation under the CUSC (as set out in the offshore generator's bilateral agreement with NGET), the offshore generator should not receive compensation in accordance with the CUSC; and
- if the cause of the generator's access restriction is an interruption on any part of the offshore transmission system; NGET should log such claims and assess them at year end. If the availability of the offshore transmission system:

[31] For each of the three transmission licensees.

- meets the OFTO's availability performance target, we propose that the offshore generator should not receive additional compensation from NGET via the CUSC mechanism; or

- does not meet the OFTO's availability performance target, we propose that the offshore generator should receive compensation from NGET via the CUSC mechanism of the lower of the gross total of the CUSC compensation payment that would have been payable as a result of the offshore generator's claim(s) (including any payments that have already been made under the CUSC) and the overall cap on the OFTO penalty[32]. We have proposed changes to the STC to extend the current transmission owner payment mechanisms offshore. Under the proposed arrangements NGET would be able to require payment from an OFTO. We note that the current arrangements do not prescribe the method by which NGET provides compensation to the generator or the method in which NGET requires payment by a transmission owner. We consider that the same flexibility should apply offshore.

4.31. We have developed the drafting of the CUSC and STC that we consider achieve these overall aims. Our revised proposals, for comment, are included within the annexes to this document.

Reactive Power Capability Range

4.32. We set out in the June 2008 Policy Update a proposal that an OFTO may take account of reactive power capability that an offshore generator offers to make available (as part of its CUSC application), when designing its offshore transmission system.

4.33. We note that the proposed changes to the CUSC (as set out in Annex 3) would allow an offshore generator to offer to provide reactive power capability above the mandatory requirements set out in the Grid Code as part of a connection application. We also note that the proposed changes to the STC would:

- require the OFTO to make an offer to NGET in response to a specific application from NGET (a 'NGET Construction Application'); and

- define the information from the user's CUSC application that must be disclosed by NGET in a NGET Construction Application to an OFTO.

[32] We have proposed that an overall cap on the OFTO penalty would be defined as part of the OFTO's performance incentive.

4.34. We have also proposed that NGET should provide Ofgem with information equivalent to an NGET Construction Application for use as part of the tender process.

4.35. We have reviewed the proposed changes to the CUSC, STC, and Grid Code to establish if they are consistent with our offshore transmission proposals in respect of allowing an OFTO to take account of reactive power capability offered by an offshore generator and provide an efficient implementation option. We have also considered responses received to our last consultation and discussions with the relevant document owners to further develop our implementation proposals. We note that the proposed arrangements include obligations within the STC processes relating to NGET Construction Applications for:

- NGET to inform the OFTO of relevant information from the CUSC application from an offshore generator (which would include details of reactive power capability of the proposed generating plant); and
- OFTO to make an offer to NGET that meets the requirements of the NGET Construction Application.

4.36. In light of this review, we do not consider that further changes are needed to the CUSC or STC in respect of reactive power capability.

4.37. We acknowledge that an explicit obligation to utilise reactive power capability services offered by an offshore generator did not form part of our original proposal. We consider that it could be inconsistent with the statutory obligations on transmission licensees in respect of efficient and economical development of transmission systems, to always require an OFTO to use additional services offered by an offshore generator. Therefore we do not intend to amend this proposal, but invite comments on the drafting.

4.38. We consider that our proposed changes to the Grid Code and STC in respect of the obligation to provide reactive power capability range at the point of connection with an onshore system, reflect the recommendations of the Grid Code sub group. We note that the Grid Code sub group did not consider in detail the commercial treatment of reactive compensation equipment provided by an OFTO as an alternative to a Grid Code requirement on an offshore generator.

4.39. We have reviewed the differences between the commercial treatment of transmission licensee and generator provided reactive power support services under the current arrangements. In particular we observe that transmission licensee provided reactive compensation plant is funded as part of each transmission licensee's allowable revenue whereas generator provided reactive power support is procured by NGET as a balancing service usually from generators that are BSC parties and participate directly in the Balancing Mechanism ("BM Participants"). However we note from discussions relating to licence exempt embedded medium power stations (under normal governance arrangements), that NGET is not precluded from entering into contracts with providers that are not BM Participants.

4.40. We observe that the proposed changes to the STC do not define a specific treatment for OFTO provided reactive compensation equipment. The proposed changes to the STC to extend the charging arrangements are substantially based on the current onshore arrangements. As such the proposed STC changes would allow the OFTO to include the costs of reactive compensation equipment installed on its offshore transmission system within the TO charges calculated in accordance with the allowable revenues (as defined by its transmission licence) and the STC. Under such arrangements NGET would be able to pass through the costs of OFTO provided reactive support to users of the GB transmission system.

4.41. We also note that the proposed changes to the CUSC would not preclude an offshore generator with a contractual obligation to provide reactive power support, offering reactive power services to NGET and benefitting from associated payments from NGET for any services that were procured.

4.42. We note the proposal as part of NGET's recent charging consultation[33] that the costs of OFTO equipment required to meet the STC reactive power capability range obligations should be charged specifically to the offshore generator(s) connected to that offshore transmission system. We consider that this proposal is consistent with the recommendation from the Grid Code sub group since the proposed OFTO obligation is intended as a substitute for a direct reactive power range capability obligation on the offshore generator.

4.43. We also note from this recent consultation, NGET's assumption that OFTO provided reactive power capability would be available to support the GB transmission system in the same way as other, onshore transmission licensee provided reactive support. We are concerned that such an approach would result in discrimination between offshore and onshore generators as offshore generators could be unduly restricted from benefitting from payments for reactive power balancing services. We are also concerned by the possible distortion of existing market arrangements for procurement of reactive power services if OFTO reactive compensation plant (intended as a substitute for generator provided capability), was treated as transmission service rather than in a manner consistent with the reactive power service procured from generators.

4.44. We are considering the appropriate commercial treatment of reactive power support provided by an OFTO. We are aware that the current arrangements have been developed to facilitate NGET's efficient operation of the GB transmission system.

[33] GB ECM-08 - Modification proposal to the Transmission Network Use of System Charging Methodology to introduce charging arrangements associated with Offshore Transmission Networks

4.45. We would particularly welcome views on whether:

- NGET should be allowed to require reactive power support from an OFTO as a transmission service (recovered through a uniform TO charge irrespective of usage);
- Additional mechanisms are required to allow OFTO provided reactive power support to be procured in a manner consistent with NGET's procurement of reactive power balancing services from an onshore generator; and
- Any specific payments for reactive power services should be made only to the OFTO or split between the OFTO and offshore generator (reflecting any contractual agreements in place to allow the OFTO to meet the proposed STC reactive power capability range requirements).

Treatment of 132kV Connected Licence Exempt Offshore Generators

4.46. We have not previously provided specific guidance about the transition of 132kV connected licence exempt offshore generators (132kV connected offshore generators who are exempt from the requirement to hold a generation licence) when the offshore transmission regime is implemented. We note that these generators are currently treated as embedded generators, as they are connected to onshore distribution systems. We acknowledge that the changes to the classification of 132kV offshore circuits (when Section 180 of the Energy Act and clause 41(3) of the Energy Bill 2008 are commenced) will have a direct impact on this type of offshore generator which would then be connected to offshore transmission systems. We also recognise that the associated changes that are designated in the relevant documents (to implement the proposed offshore transmission regime) will also have a direct impact.

4.47. We have reviewed the proposed changes to the CUSC, BSC, DCUSA, Distribution Code and Grid Code and considered the options for the transition of 132kV connected licence exempt offshore generators to the new offshore transmission regime. We have also considered responses received to our last consultation and discussions with the relevant document owners to further develop our implementation proposals.

4.48. Informed by this review, we propose the following arrangements for the transition of 132kV connected licence exempt offshore generators to the new offshore transmission regime. We propose that:

- the offshore generator should enter into a bilateral connection agreement with NGET that reflects the access rights and restrictions in its current agreement with the distribution licensee. We do not consider it appropriate to require the offshore generator to seek firmer access rights and note that the CUSC allows for access restrictions to be defined in a bilateral connection agreement;

- NGET should enter into an agreement with the distribution licensee for connection of the offshore transmission system to the distribution system and for use of that distribution system that reflects the rights and restrictions defined in the current agreement between offshore generator and distribution licensee;

- NGET should enter into an agreement with an OFTO for offshore transmission services; and

- the offshore generator and distribution licensee agree arrangements to terminate the current agreement for connection to and use of the distribution system one the new contractual arrangements are in place.

4.49. We acknowledge the comments from some respondents that licence exempt embedded generators do not have an automatic liability for transmission charges under the current arrangements. We also note the wider review of these current arrangements. We note that transmission connected generators are always liable for transmission charges. We also note that a discount is available under the current arrangements, to small generators that are connected to parts of the GB transmission system that operate at 132kV. We note the recent decision to extend this discount for a further 12 months.

4.50. We do not consider, however, that there is sufficient justification to introduce a class of transmission connected generators that were not liable for transmission charges. We recognise that this would be a significant change to the current arrangements for 132kV connected licence exempt offshore generators. However we note that licence exempt offshore generators would meet the criteria for treatment as small generators under the current arrangements. We also note the likelihood that an offshore generator would receive payment as a consequence of any transfer of 132kV offshore connection assets required by the implementation of the proposed offshore transmission regime.

4.51. In light of this review, we do not consider that further changes are needed to the standard arrangements defined in the relevant documents. We will consider any specific issues that relate to the transition of existing 132kV connected licence exempt offshore generators to the new offshore transmission arrangements on a case by case basis (on request).

Consistency Check

4.52. We are progressing an overall review of the consistency of the proposed changes to the relevant documents which will be completed ahead of the final consultation. We note that this review work may require further, minor changes to the relevant documents. We expect that such further changes would particularly apply to the defined terms within the relevant documents. We note the differences in structure and drafting style between the existing relevant documents and are taking this into account in assessing identified consistency issues.

4.53. We note the dependency of definition in the relevant documents on Schedule 1 of the electricity transmission licence on which we are seeking comments (see Annex 9). We plan to review change proposals for the relevant documents in light of any changes proposed to Schedule 1 of the electricity transmission licence. We observe that this review may lead to the withdrawal or amendment of some changes that have been proposed in each of the relevant documents.

Transmission Licence Standard Conditions

4.54. The main changes from the June 2008 Policy Update are:

- updated baseline text to reflect changes to the standard conditions that have been implemented since the June 2008 Policy Update;
- improvement to drafting clarity and correction of typographical errors in the previous change proposal;
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime[34];
- to amend proposed changes to standard conditions A1, B12, C1, C8, C9 and D4A to reflect the proposal that OFTO parties without a transmission licence may accede to the STC;
- to amend the proposed changes to standard condition C8 to extend the requirement for NGET to offer terms for connection to and/or use of the GB transmission system offshore;
- to propose changes to standard conditions B11 and E12 to define obligations in respect of security arrangements offshore;
- a possible new condition B18 to define obligations to take on the role of OFTO of Last Resort in specific circumstances. The drafting has been substantially based on standard condition 8 of the electricity supply licence;
- to propose changes to standard condition C15 to introduce an obligation for NGET to accede to and comply with the DCUSA;

[34] Proposed changes to standard conditions A3, B15, B16 and C7 have been withdrawn in full and proposed new conditions C8A and C8B have also been withdrawn in full.

- to flag the consequential amendment to standard conditions C17, D3 and E16 to implement the GBSQSS changes proposed as part of the offshore transmission regime;
- to propose a new standard condition C25 to require NGET to provide Ofgem with information and assistance required for the offshore tender process;
- to amend the proposed standard conditions E1 and E14 to "Not Used" conditions;
- to amend the proposed new standard condition E3 to reflect the proposed change to E14;
- to amend proposed standard condition E8 to improve consistency with the obligations under standard condition B7;
- to amend the proposed standard condition E13 to only require an OFTO to comply with the STC;
- to amend the proposed standard condition E17 to improve consistency with standard condition D4A and define an additional right for the OFTO to refuse to offer terms to NGET; and
- to propose legal text for standard condition E18 that reflects standard condition D4B and relevant parts of standard condition C9.

4.55. Further details and rationale are in Annex 1.

4.56. In the June 2008 Policy Update we set out a view that NGET would be able to provide information as part of its Seven Year System (SYS) that would allow an offshore developer and potential OFTOs to understand opportunities for connections for new offshore power station developments. We explained that it should be possible for links to SEA information relevant to the deployment of offshore renewables to be established within the SYS.

4.57. We have reviewed standard condition C11 of the electricity transmission licence[35] and do not consider that changes would be appropriate for the implementation of the proposed offshore transmission regime. We note that the current obligation requires the provision of information about the GB transmission system in a form approved by the Authority. The proposed change to the definition of GB transmission system would extend the scope of existing standard condition C11, offshore. We note that there will be a need for NGET to review the form of the SYS to ensure that it is also appropriate for offshore transmission systems. To

[35] Production of information about the GB transmission system

ensure the suitability of this information Ofgem would expect NGET to consult stakeholders before submitting proposals for the revised statement. We note that NGET may make a request to the Authority for approval of a revised form of the SYS ahead of Go-Active. Ofgem consider that it would be able to consider such requests and provide a 'minded to' decision to allow for SYS development.

Balancing and Settlement Code (BSC)

4.58. There are only minor proposed changes from the proposals set out in the June 2008 Policy Update. The changes concern:

- updated baseline text to reflect changes under normal governance procedures;
- improvement to drafting clarity and correction of typographical errors within change proposal; and
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime.

4.59. Further details and rationale are in Annex 2.

Connection and Use of System Code (CUSC)

4.60. The main changes from the June 2008 Policy Update are:

- updated baseline text to reflect changes under normal governance procedures;
- improvement to drafting clarity and correction of typographical errors of change proposal;
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime;
- changes to the proposed CUSC proforma for an Offshore Construction Agreement to limit the scope of NGET's right to make amendments to the Construction Agreement and associated Bilateral Connection Agreement to changes needed due to works identified by the OFTO;
- to remove a default notice period required for removal of transmission assets from an offshore generator's offshore platform;
- to clarify the treatment of GB transmission system access restrictions associated with an offshore transmission system; and
- to reflect that an OFTO can be an STC party before it is a transmission licensee.

4.61. Further details and rationale are in Annex 3.

Distribution Connection and Use of System Agreement (DCUSA)

4.62. The main changes from the June 2008 Policy Update are:

- updated baseline text to reflect changes under normal governance procedures;
- improvement to drafting clarity and correction of typographical errors of change proposal;
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime; and
- to the limitation of liability provisions to remove third party rights (in certain circumstances) in respect of an offshore transmission system connected to an onshore distribution system.

4.63. Further details and rationale are in Annex 4.

Distribution Code

4.64. The main changes from the June 2008 Policy Update are:

- updated baseline text to reflect changes under normal governance procedures;
- improvement to drafting clarity and correction of typographical errors of change proposal;
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime;
- change to proposed definitions of GB Transmission System Demand and User; and
- removal of changes previously proposed to Distribution Introduction and the Guide to the Distribution Code (these sections do not form part of the Distribution Code).

4.65. Further details and rationale are in Annex 5.

Grid Code

4.66. The main changes from the June 2008 Policy Update are:

- updated baseline text to reflect changes under normal governance procedures;
- improvement to drafting clarity and correction of typographical errors of change proposal;
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime;
- further changes to Operating Code 8 (including the removal of previously proposed OC8C and OC8D) to extend safety co-ordination arrangements to the user interface with an offshore transmission system; and
- removal of proposed changes to the General Conditions and Operating Code 7 to improve consistency with the proposed changes to the STC.

4.67. Further details and rationale are in Annex 6.

System Operator Transmission Owner Code (STC)

4.68. The main changes from the June 2008 Policy Update are:

- updated baseline text to reflect changes under normal governance procedures;
- improvement to drafting clarity and correction of typographical errors of change proposal;
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime;
- to define standard arrangements between NGET and an OFTO in respect of an offshore transmission system connected to an onshore distribution system;
- to enable an OFTO to ask NGET to request that a distribution licensee enters into a bilateral agreement with the OFTO in respect of site specific, interface arrangements in respect of an offshore transmission system connected to an onshore distribution system;
- to the limitation of liability provisions to remove third party rights (in certain circumstances) in respect of an offshore transmission system connected to an onshore distribution system;

- to define rights for an OFTO that is not actively involved in investment planning, to receive information about other STC parties' transmission investment plans that may have an impact on the OFTO's transmission system;

- to introduce obligations for an OFTO that is not actively involved in investment planning, to identify any consequential works on its offshore transmission system to inform other STC parties' investment planning activities;

- to the proposed OFTO restriction to equipment manufactured to IEC standards;

- to reflect that an OFTO can be an STC party before it is a transmission licensee; and

- to define rights to liquidated damages for an OFTO in specific circumstances (e.g. when the completion of the offshore transmission system is delayed due to another STC party having completed construction works).

4.69. Further details and rationale are in Annex 7.

GB Security and Quality of Supply Standard (GBSQSS)

4.70. We received a number of substantive responses to the June 2008 Policy Update in respect of the GBSQSS change proposals. We asked both the Centre for Sustainable Electricity and Distributed Generation (SEDG) and NGET to carry out further analysis to inform our consideration of issues raised by respondents to the June 2008 Policy Update in respect of the security requirements proposed for transformer equipment on an offshore platform, for offshore cables and for minimum busbar security requirements on an offshore transmission system. Both SEDG and NGET carried out further analysis based on the dataset that was used to determine the previous recommendations in respect of the basis for an offshore security standard.

Security Requirements Proposed for Offshore Transformer Equipment

4.71. SEDG's further analysis work highlighted the sensitivity of the recommended change from the government's decision for a 120MW threshold (to 90MW) to the following four key parameters:

- Increase in offshore costs associated with a requirement to provide redundancy in respect of transformer capability on an offshore platform;

- Mean time to repair for transmission equipment on an offshore platform;

- Failure rate for offshore transmission equipment on an offshore platform; and

- Repair costs for offshore transmission equipment on an offshore platform.

4.72. The results of this further analysis did not support a change from the revised recommendation for a threshold at 90MW. However the result did identify changes from the assumptions in respect of the four key parameters which would not support the revised recommendation.

4.73. We advise that the following changes to the underlying assumptions for the cost benefit analysis would not support the revised recommendation:

- A further increase to offshore costs of £0.9m (in addition to previous assumption of £2.02m); or
- A reduction in the mean time to repair to four months (from previous assumption of six months); or
- A reduction in the failure rate to 0.016 per year (from previous assumption of 0.03 per year); or
- An increase of repair costs for offshore transmission equipment to £5.5m (from previous assumption of £2.5m).

4.74. We are aware of the limited availability of information about offshore plant and cables, particularly at the time when the dataset for the original cost benefit analysis was collated. We invite views in respect of the appropriateness of the assumptions in respect of the four key parameters for offshore windfarms that are smaller than 120MW. In particular, we would welcome information that can be provided that has been used to inform design decisions for actual offshore windfarm developments.

Security Requirements Proposed for Offshore Cables

4.75. SEDG also carried out further analysis of the sensitivity of the decision in respect of security requirements for an offshore cable section of an offshore transmission system in light of the comments received in respect of the security requirements for offshore power station demand. We requested this further analysis to investigate concerns raised by respondents that the possible costs to an offshore generator had not been appropriately considered.

4.76. The further analysis considered the cost difference (in £m) between a single cable and two cable design option for an offshore transmission system for a wide range of windfarm sizes (from 10MW to 474MW) and windfarm locations (up to 100km from onshore connection point) using both diversified and non-diversified wind profiles (consistent with original analysis work). The results of this analysis illustrate a considerable cost difference between a single cable and two cable design solution in all cases considered. The minimum difference identified as part of this analysis was £5.75m.

4.77. We would like to consider these results in light of information about estimated reconnection costs for offshore windfarms following an extended outage of an offshore transmission system. Available information suggests that offshore generators can and do take mitigating measures to protect the integrity of offshore wind generation equipment in the event of a transmission outage. However, we do not have access to the types of information (e.g. cost of reconnection, likelihood of recommissioning tests being required, cost of mitigating measures, availability of mitigating measures) that we understand would be considered by developers when making design decisions in respect of actual offshore windfarm connections.

4.78. We would particularly welcome information that has been used to inform actual design decisions so that we can assess the robustness of the government decision in respect of the basis of the offshore security standard for cable sections of an offshore transmission system.

Security Requirements Proposed for Busbars forming part of an Offshore Transmission System

4.79. We asked NGET to consider the sensitivity of the recommended requirement that for a planned outage of any single section of busbar (forming part of an offshore transmission system substation), that no loss of power infeed shall occur. We note that a number of respondents to our July 2008 Update were concerned by this proposals which would require offshore transmission substation to be of double busbar design. We also note the advice from respondents that current offshore windfarms are being (or have been) developed on the basis of a single busbar design on the offshore platform.

4.80. NGET carried out further analysis based on the dataset that was used for the previous analysis work. The further analysis work highlighted the sensitivity of the proposed requirement in respect of busbar security to the assumed increase in costs associated with a requirement to provide busbar redundancy on the offshore platform (ie additional costs associated with a double busbar compared to a single busbar).

4.81. The results of this further analysis did not support a change from the proposed security requirement. NGET highlighted the need for additional data in respect of the costs associated with the proposed minimum security requirement.

4.82. We are aware of the limited availability of information about offshore plant and cables, particularly at the time when the dataset for the original cost benefit analysis was collated. We invite views in respect of the appropriate assumptions in respect of the difference in costs between a double and single busbar installation on an offshore platform. In particular, we would welcome information that can be provided that has been used to inform design decisions for actual offshore windfarm developments.

4.83. The main changes from the June 2008 Policy Update are:

- updated baseline text to reflect changes under normal governance;
- improvement to drafting clarity and correction of typographical errors of change proposal; and
- removal of parts of the previous change proposals that are not considered appropriate for the implementation of the proposed offshore transmission regime.

4.84. Further details and rationale are in Annex 8.

Changes Proposed under Normal Governance

4.85. Where respondents or code owners have advocated Code changes that go beyond the Secretary of State's remit to make modifications under the Energy Act 2004, we consider that such proposals should be advanced through normal industry governance arrangements. An example of such an out-of-scope change might involve amending typographical errors that have been identified as a consequence of the offshore transmission development work, where the change is not considered appropriate for the implementation of the proposed offshore transmission regime.

Derogations

4.86. A derogation is a direction from the Authority relieving a licensee of its licence obligation to comply with a technical standard or code, in specified circumstances and to a specified extent. There are a number of circumstances where a derogation may be required, for example, to prevent a breach of a licensee's obligations whilst changes to a code, standard or licence condition are made. Other circumstances are set out in Ofgem's Guidance Note[36], which also sets out the factors that the Authority will consider when assessing a derogation request.

4.87. For transitional projects, we recognise the possible detrimental impact on the tender process associated with uncertainty relating to the treatment of any compliance issues that may arise as a consequence of changes to the technical standards or codes to implement the offshore transmission regime. Whilst the Authority is unable to grant derogation to an unlicensed party, we consider that the Authority is able to assess compliance issues identified by an unlicensed party and, subject to sufficient information being provided to Ofgem about the compliance

[36] A copy of the Proposed Revised Guidance on Licence Derogation Requests is available from Ofgem's website at:
http://www.ofgem.gov.uk/Licensing/Work/Documents1/081021_DerogationsGuidance_LN.pdf

issue, provide a 'minded to' decision for use in the data room. Each request would be treated by Ofgem in the same way as a derogation request and will be considered on a case by case basis.

5. Charging

Chapter Summary

This chapter provides a further update on the detailed work being progressed by NGET in the development of offshore transmission charging arrangements.

Questions

➔ There are no questions

Introduction

5.1. This chapter provides a further update on the detailed work being progressed by NGET in the development of offshore transmission charging arrangements. It builds on previous documents, taking into account responses received, and discussions at industry forum meetings (e.g. TCMF - Transmission Charging Methodologies Forum) over the last few months.

5.2. As noted in the June 2008 Policy Update, proposals for offshore transmission charging arrangements had been produced by NGET as transmission licensee and "owner" of the charging methodologies. In light of concerns raised by NGET as part of its consultation process, Ofgem requested that it undertake further analysis and initiate a supplementary consultative process with industry to address the main concerns relating to:

- NGET's assumptions about the information that will be collected as part of Ofgem's offshore competitive tender process; and
- The basis, definition and justification for the split between locational and residual charging elements in respect of offshore transmission systems.

5.3. Respondents to the June 2008 Policy Update expressed concerns about the potential impact of any removal of socialised costs, were NGET to recommend this following its further work, which they felt would undermine a fundamental principle of support for new regime, negatively affect the economics of offshore wind and cause uncertainty for investors. There were also calls for more clarity on the reasoning behind Ofgem's request. We recognise the importance of this issue, particularly for the economics of offshore generation, and the need for clarity. We do also need to ensure, though, that the methodology to develop the charging regime is robust and not open to challenge.

5.4. In terms of the general process going forward it is important to highlight the following relevant points:

- NGET is required to progress any charging modification proposal through the well established onshore governance process. This process requires NGET to discuss the merits of any proposal raised by any transmission user with industry and present its modification conclusions to the Authority for approval.
- Only the Authority have the powers to non-veto (approve) or veto (reject) a charging proposal if NGET deem the arguments and economic evidence compelling to proceed.
- Previous policy documents confirmed our general approach to the development of offshore transmission charging arrangements and that unless significant new information emerges, the same broad principles should apply to the regulation of both onshore and offshore transmission; and
- In the same way that proposals to incorporate charging arrangements for offshore transmission networks is being considered as a development to the GB charging methodology, we note that NGET are progressing other developments in parallel which have an implication for offshore charging arrangements, one of which is the charging arrangements for "local" generator assets[37].

Update

5.5. The reasons for asking NGET to undertake further analysis were set out in Ofgem's open letter published on 13 June 2008[38] and summarised in chapter 7 of the June 2008 Policy Update. However, for the purposes of this document, and to address the specific concerns of respondent's, Ofgem can make the following points:

- NGET's deliberations have, over time, revealed significant areas of uncertainty and potential consequences that must be further investigated and developed. To support this development there must therefore be robust analysis of the central options available, both in terms of the applicability from an offshore perspective but also as part of an integrated charging regime. This approach should give

[37] NGET's consultation, which closed on 28 August 2008, can be viewed via the following link: http://www.nationalgrid.com/NR/rdonlyres/224F15A5-E4BA-45D3-B5B6FC0CB2641554/27416/ECM11LocalChargingFinal.pdf

[38] Available from NGET's website. http://www.nationalgrid.com/NR/rdonlyres/08880813-81D6-45B9-8867-9DB13951FA42/26376/3052008LettertoHeddRobertsFINAL.pdf

additional comfort to NGET, and the industry as a whole, that the proposals being developed are fully robust, cost reflective and transparent. The request for further analysis reflects this general requirement.

- Ofgem note that NGET have a transmission licence obligation (Standard Condition C5) to meet the relevant objectives of the charging methodology and is bound to address significant issues that have been raised as part of the consultation process in order to be satisfied that the proposed regime fully meets the test of whether a proposal is best calculated to further these objectives.

- Ofgem believes that, when approached by NGET, it is appropriate to comment on a proposed approach that seeks to apply onshore charging arrangements to the offshore environment without full and detailed consideration of differences and potential consequences that have been raised as part of the discussion process. To follow an approach without consideration of differences and potential consequences may run the risk of promoting unexpected consequences, the ultimate effects being felt by offshore generators and consumers. The Authority must therefore have sufficient information about a proposal and its potential impacts to conduct a full evaluation and be satisfied that the proposed charging regime is fit for purpose while ensuring that the OFTO is incentivised to reduce overall costs.

- NGET's further analysis of options must also take into consideration any practical difficulties associated with the offshore environment in terms of the design of particular projects and the specific differences in the nature and obligations under the licensed framework within which offshore assets are intended to operate.

5.6. In terms of the governance process in general, Ofgem notes that its recent Review of Code industry governance document[39] highlighted that the charging methodologies may be revised, given the multi-lateral impacts of the methodologies, to allow market participants to propose changes to the methodologies. Ofgem intends to consult on a range of options that could make the charging methodology change process more accessible to market participants, the offshore TNUoS charging methodology will be part of this review.

5.7. In terms of the manner in which to address the concerns about NGET's original proposal, Ofgem believes it is appropriate for NGET to seek to address any issue that appears to restrict the derivation of offshore charges through revisions to the GB charging methodology in the first instance. Ofgem is of the opinion that it is not appropriate to amend the structure and administration of the tender process given that the purpose of this process is to choose a licensee, not to derive charges that will apply for use of an offshore network. Instead, it is the responsibility of NGET to

[39] Published 30 June 2008.

specify any information requirements that will allow them to derive charges under an approved methodology before entering into a contractual arrangement with an OFTO.

5.8. Ofgem notes that NGET has recently submitted a conclusions report[40] to the Authority for decision on a proposal to modify the use of system charging methodology to develop charging arrangements for transmission infrastructure assets which are local to generation connections. Ofgem notes that NGET has stated that the proposed local charge was generally agreed to be cost reflective and appropriate for offshore connections. The Authority is required to assess any proposed modification to the use of system charging methodology and to decide whether to approve or veto such a change. The Authority's decision is based on a consideration of whether the modification would better facilitate the relevant methodology objectives and taking account of the Authority's statutory duties. To inform its assessment, the Authority has recently published an impact assessment[41] and consultation on proposed modification GB ECM-11.

Next steps

5.8. NGET has recently published a supplementary consultation detailing its revised proposals for the introduction of charging arrangements associated with offshore transmission networks[42]. We expect these proposals to form the basis of the final charging modification proposal for submission to the Authority for approval in December 2008, and no later than 1 January 2009. This will allow the Authority to make a decision before 1 April 2009.

[40] GB ECM-11 (Charging arrangements associated with generator local assets) available on NGET's website at: http://www.nationalgrid.com

[41] Available from the Ofgem website: http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/Charging/Documents1/OCT24%20GB%20ECM11%20Impact%20Assessment.pdf

[42] Available from NGET's website: http://www.nationalgrid.com/uk/Electricity/Charges/modifications/uscmc

6. Implementation Summary

Chapter Summary

This chapter explains how we intend to implement the proposals we have outlined in this document. It also provides an outline of our timetable for delivering these proposals.

High Level Milestones

6.1. We anticipate the key high-level milestones and dates to be as follows:

November 2008	Publication of this Consultation Document DECC/Ofgem External Communication Session Anticipated Royal Assent for the Energy Bill powers
New Year 2009	Second Ofgem Tender Regulations Consultation
February 2009	Ofgem to publish revised tender consultation including an update on the regulatory regime and the tender documentation
Spring 2009	Final joint Ofgem/DECC consultation on Offshore Transmission Regime including codes and licences
June 2009	'Go-Active' commencement of sections 90, 91 and 92 of EA20004
Summer 2009	First tenders commence
June 2010	'Go-live'[43] commencement of sections 89 and 180 of EA2004

Implementation of changes to licences and codes

6.2. The Government will implement those changes to the standard licence conditions and industry codes that it considers necessary to implement the offshore transmission regime by commencing section 90 of the Energy Act 2004.

6.3. Under Section 90, the Secretary of State will be able to establish the obligations that will be common to each offshore transmission licensee, modify the standard

[43] Go-Live is expected to be one year after the Go-Active date

conditions reflecting obligations on the GBSO and modify codes and agreements to reflect any changes he considers appropriate for purposes connected with offshore transmission.

6.4. Following the consultation process the Government will commence section 90 of the Energy Act 2004 to enable the Secretary of State to make the appropriate modifications to the existing standard licence conditions of transmission and distribution companies and amend the industry codes.

Extension of the GBSO role offshore

6.5. The Government will extend the role of the GBSO offshore by making appropriate modifications under section 91 of the Energy Act 2004.

6.6. Section 91 allows the Secretary of State to modify the "coordination licence" for the purpose of applying a system operator's authorisation and licence conditions in relation to the transmission of electricity in specified offshore areas. Such modification may include modifications to the licence and conditions which the Secretary of State considers appropriate for incidental, consequential or transitional purposes. It also enables the Secretary of State to make, for incidental or consequential purposes in relation to that main purpose, modifications of a particular licence or modifications of the Standard Licence Conditions (SLCs) of any type. In practice this allows the terms and conditions of NGET's licence to be modified such that its functions as GBSO will cover all onshore and offshore transmission networks. Section 91 powers may also be used to make incidental, consequential or transitional modifications to licence conditions, including SLCs.

Implementation of the tender regulations

6.7. The Government will introduce the powers to the Authority by commencing section 92 of the Energy Act 2004, alongside any changes resulting from the Energy Bill. This will allow the Authority (subject to Secretary of State approval) to make tender regulations to implement the tender process for selecting to whom to award offshore transmission licences. Before implementing the tender process, we expect to adopt the following process:

- The commencement of section 92 of the Energy Act 2004;
- Tender Regulations being submitted to the Secretary of State for approval;
- Implementation of the tender process once the regulations take effect;
- Ofgem will be engaging with transitional projects to help ensure that tender exercises can begin as close as possible to the Go-Active date; and

- Ofgem will be organising resources for tender teams and developing internal governance procedures to ensure that they are fully prepared for Go-Active.

National Grid

6.8. NGET in its role as GBSO is engaging with potential transitional projects and is holding a joint workshop with the BWEA entitled 'Getting Connected' on 1 December 2008 to help develop the regime and prepare stakeholders for its introduction.

Other issues

6.9. In addition to modifications made by the Secretary of State under the Energy Act of 2004 some aspects of the regime will be implemented through other mechanisms, for example, some elements of the regulatory regime will be implemented through the insertion of special conditions into the licences of each OFTO by Ofgem. The implementation of relevant business systems for running the tender process will be undertaken by Ofgem and, where appropriate, NGET as GBSO.

Appendices

Index of Appendices

Appendix 1 - Detailed analysis of responses to Ofgem/BERR June 2008 Regulatory Policy Update

Appendix Summary:

This appendix provides more detail on the responses received to Ofgem/BERR's June 2008 Policy Update. It follows the same structure as the questions asked in that document. We have also included comments made by respondents not in direct response to a question. The appendix also contains (in bold) our response to points made, where appropriate, or cross references to other parts of this document or Ofgem's tender consultation document which provide a response.

General

Overall Policy Approach

1.1. One respondent felt the proposals benefited developers considerably and another was a strong supporter of the price regulated competitive approach. There was also support for progressing the work but incorporating a review of the regime after the first transitional and enduring projects had been tendered. **We intend to monitor the effectiveness of the new regime to ensure it is delivering the anticipated benefits.** There was also a call for a workshop to go through the tender process. **National Grid and BWEA will be running a 'getting connected' workshop in December to go through the connection and tender processes.**

1.2. One respondent suggested allowing, under the enduring regime, developers to construct the transmission assets themselves and then transfer them to an OFTO selected by competitive tender for owning and maintaining the transmission assets. **We believe that allowing the option of excluding competition from designing, financing and constructing transmission assets would not deliver the range of benefits to stakeholders that our proposed competitive approach for enduring projects would bring.**

1.3. There were some concerns about the viability of the new regime for Round 3 projects and beyond and suggestions that further work be undertaken to ensure that the assumptions applicable to Round 1 and 2 projects were still valid. **Chapter 1 sets out in more detail how we anticipate the new regime interacting with Round 3 projects.**

1.4. One respondent felt alternative approaches had not been properly considered, in particular continuing the existing 'merchant approach'. Another felt that the proposed approach was too bureaucratic and risky for developers. One respondent also had concerns about whether the proposals for the new regime would deliver the intended objectives. **Chapter 1 provides the rationale for the approach to the new regime and the benefits we believe it has over alternative approaches.**

Coordination and interaction with The Crown Estate proposals

1.5. One respondent asked how the potential benefits of collaboration with The Crown Estate's proposed approach to Round 3 projects would be delivered through a competitive tender approach using a tender window. **Chapter 1 provides further details on the interaction between Round 3 and the competitive tender process. Paragraph 1.39 of this Chapter covers the issue of tender windows.**

Costs and Benefits

1.6. Some respondents felt that the potential costs of the regime, for example in separating generation and transmission assets and the subsequent potential duplication of costs and activities in maintaining them separately outweighed any benefits. **The accompanying Impact Assessment covers potential costs of the proposed regime.** They also expressed doubt that OFTOs would be able to finance and maintain transmission assets more efficiently than developers and that if they did the benefits would not be passed on to developers and consumers. **We believe that the competitive tender process will ensure that bids are competitively priced and benefits will accrue to the generators.**

Delays and complexity

1.7. There were concerns from some respondents that the complexity of the regime would lead to delays with particular concerns about the possibility that an OFTO would not be in place for transitional projects before Go Live. The possibility of exemptions from the new regime was also raised. **We remain confident that OFTOs will be in place in time for Go Live and that it is not desirable to provide exemptions to projects at 132kV or above. Ofgem are engaging with transitional projects to ensure any concerns about the tendering of individual projects are addressed. In addition, we recognise the usefulness of an OFTO of Last Resort mechanism manner in the unlikely event that the tender process fails to identify a suitable bid. We have put forward an idea of how this might operate, see Chapter 2, on which we are seeking views.**

Consistency with onshore arrangements

1.8. One respondent listed a number of areas where they felt the offshore regime was not consistent with onshore arrangements. Another respondent suggested that not all proposals were consistent with the Transmission Access Review work to date. Another requested confirmation that £4bn of investment in the onshore grid will provide adequate capacity for offshore wind and will be ready in time. They wanted incentives for NGET to carry out strategic investment to be able to quickly and efficiently deliver generation to the network. **Chapter 1 explains the interaction between the Transmission Access Review and the proposed new offshore transmission regime.**

Interconnectors and EU Supergrid

1.9. Two respondents called for more studies and promotional work by Government on offshore transmission networks and interconnectors, including to other EU member states. Another respondent considered that the scope of the current offshore transmission project should not be extended to consider offshore interconnected networks. **The consideration of proposals on any new interconnectors or EU Supergrid is being taken forward outside of this consultation process. However, we believe that our proposed new offshore transmission regime would to accommodate such developments should they be realised.**

Design of the regulatory regime

Revenue adjustments – should the regulated revenue stream be adjusted and, if so, how should this be designed?

1.10. Twelve respondents provided comments on regulated revenue stream adjustments. All respondents on this issue supported the use of revenue adjustments on a case by case basis (one proposed that they be subject to negotiation between Ofgem, the generator and the OFTO), but there was variation in which specific areas they should be applied to. There were also suggestions that the mechanisms should be transparent and open to appeal. **Revenue adjustments are covered in Chapter 3.**

1.11. The seven respondents who referred to proposals on indexation supported its use. Some stated that indexation should only apply to part of the revenue stream for example operation & maintenance and insurance costs. **This issue is covered in Chapter 3.**

1.12. There was support for the use of adjustment mechanisms to cover predictable but uncertain cost factors ('Known Unknowns') such as licence fees, business rates and insurance premiums. Two respondents felt that there should not be an adjustment mechanism for post construction refinancing. **Chapter 3 provides our response to these issues.**

1.13. There was support for the proposal for dealing with unexpected changes resulting from exceptional events ('Unknown Unknowns') on a case by case basis. One respondent suggested that Ofgem should set out in advance high level principles for dealing with these events on a case by case basis. Suggestions for where a mechanism may be needed in this category included regulatory and taxation changes and for uninsurable force majeure. There were requests for further clarity on how adjustments for unknown unknowns will be managed. **Chapter 3 provides Ofgem's proposed approach to 'Unknown Unknowns'.**

Incremental capacity – what are your views on our updated position?

1.14. Eleven responses commented on this issue. A slight majority supported the 20 per cent cap with the minority arguing it was an arbitrary figure or not applicable in all cases. There were requests for clarification about how a request for incremental capacity increase would be reflected in the OFTO's revenue stream. Some respondents also thought that any request for an incremental capacity increase of over 20 per cent would require a retender of the whole project, with the potential result that the OFTO has its licence revoked and its transmission assets sold. A further suggestion was that OFTOs would only be able to recover efficient costs in the event of an incremental capacity increase request. **All of these points are covered in Chapter 3.**

1.15. One respondent argued in favour of removing the 20 per cent cap when an incremental capacity increase did not involve major construction work. **We do not feel that this would be definable and that the 20 per cent cap on investment provides better clarity.** There was also a suggestion that the arrangements would need to be revised for Round 3 projects where there would be more incentive for OFTOs to invest ahead of user commitment. **We do not believe that such a scenario would impact on the 20 per cent cap as separate tenders would be held.** There was also a concern that where a generator affiliate has not been successful in a tender the generator might make changes to initiate a retender in the hope that its affiliate might be successful. **We do not anticipate generator affiliates being able to bid (see Chapter 2).**

What are your views on the appropriate structure and level of OFTO performance incentives; including how much of the regulated revenue stream should be exposed to such incentives?

1.16. Fourteen responses covered this issue containing a wide variety of views on the need for, structure and level of incentives.

1.17. Many respondents stressed the need for incentives to be set at a higher level than the cost of maintaining the transmission assets, so that OFTOs resolve the problem rather than accept the penalty. However some felt that any increase in performance requirements or a penalty-only regime would lead to an increase in the OFTO bid resulting in effect in a generator self-insuring. Two respondents felt the 10 per cent cap was reasonable with three stating that 10 per cent seemed too low and requesting Ofgem's analysis in proposing this figure to be released. One respondent said that 10 per cent was too high given the lack of experience in the area. Most respondents welcomed a flexible case by case approach. One respondent suggested that incentives regimes should be reviewed every 2 years and be open to challenge. Two said that all incentives should be symmetrical as onshore and one felt the setting of incentives was near impossible in such an infant industry. **Chapter 3 presents our updated position on the incentives regime and Appendix 8 presents Ofgem's advisers financial modelling on the appropriateness of a 10 per cent penalty cap.**

Delivery incentives

1.18. Three respondents thought there was little need for such incentives because an OFTO will receive no revenue until the works are complete. If one were used a number of respondents felt that allowances should be made for the lack of experience in constructing transmission assets in the marine environment. Five respondents agreed that a delivery mechanism should be asymmetrical. A definition of "extensive delay" and "failure to deliver" and clarification of how adverse weather conditions would be treated were also requested. **Chapter 3 provides our updated position on delivery incentives.**

1.19. Three respondents felt there should be scope for a bilateral agreement between the OFTO and generator to hasten the delivery date if generation assets were going to be completed ahead of schedule. **We note that any such agreement would need to be approved by NGET as GBSO.**

Energy Losses

1.20. Three respondents agreed that energy losses should only be a factor at the design stage but argued that there needed to be a mechanism to ensure energy losses performance promised at the design stage is delivered. Two respondents agreed that an operational losses incentive was inappropriate, but another felt there should be such an incentive. **Chapter 3 sets out our position on these issues.**

Operational availability incentives

1.21. Five respondents supported the proposal for an asymmetric incentive with two explicitly supporting a permit system that would grant OFTOs a number of "free" outages. Others requested details of how such a permit system would work. One respondent suggested that a generator be able to share the costs of maintenance with an OFTO given that potential losses to a generator of lack of availability would likely be more than to an OFTO. One respondent felt the incentive should include the variable costs of maintenance. Two supported the proposed 97per cent availability level, but three said 97per cent was too low and advocated at least 98.5per cent availability. **Chapter 3 sets out our position on operational incentives and Appendix 5 presents how the proposed permit system might operate.**

Adjusting revenue to reflect incentives

1.22. Two respondents agreed that penalties should be paid via reduced transmission charges the following year, while two others suggested GBSO pay the generator in the year in which the failure occurs and then recover from the OFTO later. **Chapter 3 and Appendix 5 cover how such adjustments might operate.**

What should be the role of the generator in defining the level and structure of performance incentives ex ante as part of their requirements?

1.23. Six respondents felt the generator should be engaged in setting the incentives with one suggesting that the generator set them alone. Two respondents felt that Ofgem should set default levels with the generator having to make the case to vary having been given information on the costs/benefits in terms of charges in doing so. **We have proposed that there be a standard set of incentives with the flexibility for these to be varied for individual tenders.**

What actions should be taken in the event of persistent OFTO underperformance?

1.24. Seven Respondents had views on this issue. Four felt that penalties should be proportionately increased with the ultimate sanction being termination of the OFTO licence (one suggested this happen at the generator's request). There was also a suggestion of an OFTO-backed insurance scheme to cover such an eventuality. The need for a smooth transition from one OFTO to another in the event of licence termination by allowing the generator access to the market or compensation during the interim period was also stressed by two respondents. Two respondents thought that OFTOs should be given every chance to remedy failures as the costs and upheaval in replacing them would be significant. One suggested allowing investors in OFTOs to have "step in" rights to enable them to cure any OFTO breaches which might lead to default. **Chapter 3 provides details on our proposed approach to persistent underperformance and also OFTO abandonment of a project.**

Other issues raised by respondents

Duration of regulated revenue stream

1.25. Four respondents reiterated concerns that the proposed 20 year period is too short. One respondent wrote in support of the 20 year proposal and another felt it should be negotiated between the generator, OFTO and Ofgem on a case by case basis. Two respondents requested clarity on the proposal that Ofgem to be able to set a shorter revenue period when "competition has not been effective in the tender process". **Chapter 3 reiterates our position on the standard duration of the regulated revenue stream and clarifies circumstances where a shorter revenue period might be appropriate.**

End of the regulated revenue stream

1.26. Three respondents wrote in support of the proposed flexible approach with one requesting clarification on what happens to licences in the event of a new OFTO being appointed following a retender. One respondent thought the arrangements should be negotiated between the generator, OFTO and Ofgem on a case by case basis. Two respondents were concerned that the proposed approach would lead to uncertainty and the possibility of an incumbent OFTO not maintaining the assets in

the latter years of the revenue period. **Chapter 3 sets out revised proposals for arrangements at the end of the regulated revenue stream for comment. It also presents a proposed OFTO 'performance bond' to help ensure the satisfactory maintenance of assets in the latter years of the revenue stream.**

Generator affiliates and business separation

1.27. One respondent wrote in support of business separation proposals whereas one other had concerns about the costs of and delays in abiding by such requirements and also about future EU legislation in this area. The issue of business separation was also raised under responses to OFTO of Last Resort proposals. **This issue is covered in Chapter 2.**

Decommissioning costs

1.28. One respondent requested clarity on how decommissioning costs of transmission assets would be included in the price control and suggested they be recoverable by the OFTO nearer the time when cost information is clearer. **We note that successful bidders will need to receive Secretary of State approval for their fully costed decommissioning plans and should decide how best to manage any risks associated with decommissioning. Chapter 3 covers this issue.**

Allocation of Risk

1.29. Three respondents expressed concerns about the level of risk for generators under the proposed regime. They felt that generators would have to deal with the consequences of OFTO poor performance and failure without control over (or guarantee of) the selection of a suitable OFTO. **We believe that our proposals set out in Chapter 3 will ensure that risks lie with those best placed to manage them. We are confident that the updated proposals on incentives, penalties and OFTO poor performance will mitigate this risk and minimise its impact on the generator. The June 2008 Policy Update and Ofgem's tender consultation document provide details on the role of the generator in the tender process.**

Tender process (including transitional arrangements)

The proposed pre-conditions for the enduring tender process, and in particular whether there are any other pre-conditions that it would be appropriate to consider.

1.30. Nine respondents commented on the proposed preconditions of a connection offer (or connection application plus appropriate financial commitment to a tender) and lease arrangements with The Crown Estate.

1.31. Five respondents felt the proposals pragmatic and one highlighted the potential to help guard against unwanted "access hoarding". This included support for allowing developers to enter a tender process before receiving a connection offer to reduce potential delays.

1.32. One respondent felt that a tender should only start when the generator was ready; likely to be after Section 36 consents had been gained.

1.33. There were requests for clarity on what was meant by "lease arrangements with The Crown Estate", some respondents took this to mean the final lease agreement, i.e. when all consents had been gained, and had concerns about the feasibility of this while others assumed it mean an option on a lease and were content with the proposals. There was one concern that requiring lease arrangements were inconsistent with onshore which had no equivalent requirements. **Further detail on these issues is provided in Ofgem's tender consultation document.**

The proposed approach for treating seabed surveys in the enduring regime.

1.34. Eight of the ten respondents to this question felt that seabed surveys should be the responsibility of the generator/developer to save time with some expressing concerns that OFTOs might want to re-evaluate the surveys with potential extra costs and delays. The remaining two thought there should be flexibility as set out in the June 2008 Policy Update. Three respondents stated that developers should be remunerated for the cost of undertaking the surveys**. This issue is covered in Ofgem's tender consultation document.**

The proposed linkage between the tender process and the connection process.

1.35. There was support for the proposals with some concerns about the detail of how the approach will be reflected in the relevant codes and agreements. One respondent felt that changes between the original connection agreement and one revised after the tender process would create risks for the generator and undermine the value of the original agreement. **Chapter 4 and the relevant annexes cover the connection application process. The comments on implementation under the codes and agreements are dealt with under those sections of this summary.**

The proposed approach for OFTOs to provide construction security.

1.36. Ten respondents commented on the appropriate level of construction security to be provided by the OFTO. Four respondents thought 100 per cent was an appropriate level of security. Five other respondents saw no need for such a security or felt it should be significantly less than 100 per cent of the construction cost. Alternative approaches were suggested to achieve the same level of reassurance

without the need for 100 per cent security and the extension of existing onshore arrangements was also advocated.

1.37. There were also requests for further clarity on how such a security would work and the process that Ofgem would adopt for dealing with an OFTO unwilling or unable to complete construction, including the role of the GBSO. More detailed comments on how such a policy would be implemented under the STC are covered in the STC part of the summary. **Chapter 3 presents revised proposals on construction security for comment.**

The proposed approach that the preferred bidder will make its offer of construction through the normal STC process.

1.38. Five respondents felt this approach was appropriate. **Any points made on detail are covered in the STC part of the summary.**

Other issues raised by respondents

Tender windows

1.39. Three respondents expressed doubts that tender windows would help deliver coordination of projects, suggesting that they would introduce delay instead. However, one of these respondents welcomed the proposal to review the effectiveness of the tender window. One respondent wrote in favour of the proposal. **Our position remains that Go Active and Go Live will effectively serve as two tender windows and that we will use the experience gained to decide whether to continue with this approach in the enduring regime.**

Preferred bidders securing firm prices and reviewing revenue stream

1.40. Two respondents expressed concern that bidders would not be able to secure 'firm prices' until after selection as preferred bidder. They suggested that once appointed the preferred bidder be granted greater flexibility to secure prices. There was also a suggestion from one respondent that the preferred bidder be permitted to review its revenue stream to mitigate risks. **Ofgem's tender consultation document covers this process.**

Consents and leases

1.41. The three respondents who provided views on this all agreed that the developer should continue to gain consents for generation and transmission assets. One respondent thought that developers should not be reimbursed for the costs involved in this while another thought they should be reimbursed for risk taken as well as actual costs involved. One respondent felt that untangling transmission and generation consents would be costly and bureaucratic. **These issues are covered**

in Ofgem's tender consultation document. There was also a concern that developers would likely need onshore TO/DNO cooperation in commissioning feasibility studies but as onshore TOs and DNOs were under no licence obligation to provide this it could lead to delays as responding would not be a priority for them. **We believe that TOs and DNOs will have a strong commercial incentive to cooperate and feel there is no need for a licence obligation.**

OFTO of Last Resort

1.42. There were many requests for clarity on the proposed mechanism for an OFTO of Last Resort under transitional arrangements. Two respondents asked if a generator would be forced to become an OFTO of Last Resort, another asked if the generator would have had to have participated in the tender. Four respondents asked for greater detail on what business separation requirements would be, and the legal basis for such requirements. The time taken and costs involved in business separation was also a concern with one respondent asking whether the generator would be able to recover the costs involved? One respondent asked what steps Ofgem would be taking to preclude the need for an OFTO of Last Resort. Two respondents advocated a similar mechanism for projects under the enduring regime. **Chapter 2 presents our updated position on OFTO of Last Resort and the process to be followed before such a mechanism might be used. Our position remains that an OFTO of Last Resort is not necessary in the enduring regime in the event of a tender process failing to identify a successful bidder.**

EU Procurement requirements

1.43. One respondent asked whether EU procurement rules would apply to OFTO activities. Another respondent suggested that Procurement directive 2004/17/EC did apply and that the tender process should allow OFTOs to address these requirements especially by allowing sufficient time. **The next Ofgem tender process consultation document will contain details on how the tender process will accommodate the need for bidders to make suitable contractual arrangements with suppliers.**

Ofgem managing the tender process

1.44. One respondent asked whether Ofgem was devoting sufficient resources to enable it to manage tenders, particularly given that tender windows would concentrate the need for resources at the same time. One respondent asked for further details of how the process will be administered while another thought Ofgem would not have the necessary experience to be solely responsible for making the proposed decisions. It was suggested that the Ofgem tender team should have delivery objectives and performance incentives to ensure it manages the process effectively. One respondent also stressed the need to involve OFTOs and generators and make certain areas, such as the setting of the revenue stream, the subject of negotiation. **Ofgem is making the necessary arrangements to ensure that it will be able to run effective tenders from the Go Active date.**

OFTO investment credit rating

1.45. Two respondents sought more detail on what alternative forms of financial status would be acceptable for Ofgem if an investment credit rating was not required. A suggestion was made that it would be sufficient to demonstrate suitable funding, including reserves and working capital, was in place. **Ofgem's tender consultation document covers this issue.**

OFTO cost recovery

1.46. One respondent suggested that OFTOs be able to recover their bid costs. **We set out in our January 2008 Joint Policy statement that we expect participants to meet their own costs of tendering for OFTO licences.**

Role of the generator in the tender process

1.47. Three respondents advocated active generator involvement in the tender process to varying extents. These included triggering the tender process, populating the data room, considering variant bids, and assessing/selecting the revenue stream. **The tender consultation document sets out the role that we expect generators to play in the tender process.**

Licence Exempt 132kV Connected Offshore Generators

1.48. Five respondents expressed concerns that such existing licence exempt offshore generation projects would face difficulties transitioning to the new regime particularly as they do not currently have a number of agreements with National Grid which would be necessary under the new regime. Two respondents felt this would reduce the attractiveness of such projects to potential bidders. One respondent suggested that standard arrangements be developed by a reconvened Offshore Transmission Embedded Transmission Working Group. **Chapter 4 covers this issue.**

Role of National Grid in engaging with transitional projects

1.49. One respondent had concerns about National Grid engaging with transitional projects and the possibility of information sharing with any potential National Grid owned OFTO. Information was requested on how this will be prevented. **Chapter 3 sets out proposals for business separation requirements for National Grid between its role as GBSO and potential OFTO. Ofgem's tender consultation document also covers this issue.**

Separation of transmission and generation assets

1.50. Three respondents expressed concerns regarding the separation of transmission and generation assets and activities, particularly for existing projects.

They argued that this will involve costs and delays, for example in operating and maintenance activities. **We believe that it will be in the commercial interests of generators and OFTOs to work together to ensure that assets are maintained in the most cost effective manner. However, we recognise that there will be costs for existing projects in separating generation and transmission assets. This is covered in the accompanying Impact Assessment.**

RAV Assessments

1.51. One respondent was against such assessments. Three other respondents requested further details on the criteria Ofgem will use in making such assessments including whether Ofgem would undertake an engineering audit. One respondent requested clarity on how the "two stage" assessment of RAV would operate with firm tenders and in particular how changes in RAV would be accommodated after the assets had been completed and handed over? Our position remains that RAV assessments will be carried out. **Further detail is in the Ofgem tender consultation document.**

Preconditions for transitional projects

1.52. Three respondents supported the need for such preconditions. One argued that the condition that "the developer has secured an offshore connection offer from NGET" may not apply in the case of Licence Exempt Embedded projects. **This point is covered in Chapter 4.** There was also a suggestion to include a precondition of an independent engineering audit report on design of works that have not been completed by Go Active. **An OFTO licence will not be granted without an independent engineering audit certifying that the transmission assets are fit for purpose. Ofgem's tender consultation document covers this issue.**

Offshore charging

1.53. Ten responses were received on the offshore charging proposals. The majority of respondents asked for Ofgem to clarify its thinking and intentions with regard to its request to NGET to revisit its charging methodology proposals, given the guiding principle that offshore arrangements should mirror those onshore. These respondents also raised concerns that the slow pace of development and potential reduction (or removal) in the amount of socialised costs offshore would negatively affect the economics of offshore wind, introduce uncertainty and inhibit rather than support the overall policy objectives of connecting generation offshore.

1.54. Another respondent considered that the proposal to allow charges to be recovered in accordance with the agreed charging methodology in place "at that time" leaves the relevant offshore generators and OFTOs exposed to the risks that changes in such methodologies may have significant impacts on them in the future. It called for a change in the governance process to ensure that all those affected by such charges have the ability to propose changes which will better facilitate the regulatory objectives, not just the network operator(s).

1.55. In terms of the further analysis work being conducted by NGET, one respondent noted that consideration should be given to the regulatory solution and amendment of the structure and administration of the tender process to address the perverse incentive for an OFTO to incorrectly allocate locational costs, rather than the charging methodology.

1.56. One respondent suggested that the modification proposal being developed by NGET is extremely complex and is likely to become more so given the parallel developments in the charging arrangements for "local" asset charging and in response to the Transmission Access Review.

Transmission Access and Compensation

1.57. Respondents were supportive of the key proposals for access, with some noting the obvious interaction with the ongoing TAR work.

1.58. Of the responses received on compensation arrangements, almost all supported the proposal that the CUSC should define arrangements that enable an offshore generator to benefit from compensation to be paid in respect of defined offshore transmission system outage conditions, if the offshore generator has requested and paid for full or partial redundancy in its offshore transmission system connection. One respondent [DONG] raised a concern that this approach may not be consistent with the suggestion that the User may specify different levels of compensation in its requirements for the OFTO tender. It questioned whether minimum compensation levels could be set out in the CUSC with the User free to specify different arrangements on a bilateral basis.

1.59. Two respondents asked for Ofgem to clarify its thinking with regard to the policy proposal that requires an OFTO to compensate a generator for the offshore part of its TNUoS charge even in the event of an outage on the onshore transmission network. These respondents did not agree that there was sufficient justification presented in support of this policy and argued that this would unfairly penalise the OFTO for events outside of its direct control. They welcomed our request for NGET to conduct further work to investigate whether it is appropriate for the funding of the rebate of onshore and offshore elements of transmission charges (in the event that an offshore generator is entitled to compensation for a loss of transmission access).

1.60. One respondent requested that Ofgem share the supporting analysis underpinning this proposal to help understand how the proposed offshore compensation arrangements compare with Ofgem's proposal for penalty payments through an operational availability incentive mechanism. Another respondent agreed with the stated interpretation of the CAP 48 compensation principles and the ability for an offshore generator to receive a "CAP48" rebate of the onshore and the offshore TNUoS charge. A third respondent commented that "CAP76" payments should be considered as well as CAP48 payments in the compensation mechanism.

1.61. In terms of the actual mechanism for funding compensation arrangements, almost all respondents who commented supported the proposal for the mechanism to

be set out in the CUSC. One respondent was of the view that it would be inappropriate to place obligations on transmission asset owners in the CUSC.

1.62. In terms of the mechanism for the funding of OFTO compensation, almost all respondents supported the proposal for the mechanism to be set out in the STC. Two respondents noted however that, at present, CAP48 payments are pass-through items in TO price controls pending the development of a workable incentive arrangement. There is as yet no agreed methodology for allocating responsibility for fault outages between the GBSO and TO. One respondent noted that arrangements for passing the payment from OFTO - GBSO - User and associated revenue implications should be set out in the OFTO and GBSO's transmission licence. The other respondent noted that subject to the concerns of 'double jeopardy' for the OFTO in the event of both CAP48 payments and an availability incentive being in operation being addressed it agreed in principle with OFTO funding of compensation being set out in the STC.

1.63. NGET, as GBSO, made the general observation that it expected the means by which offshore compensation is ultimately funded to be discussed as a part of the offshore transmission licence special conditions development.

Relevant Documents

Cross Relevant Document Responses

1.64. One respondent welcomed the proposal for us to undertake a consistency check between and within relevant documents. This respondent notes a particular need to review the definition of force majeure to ensure that it is appropriate from an offshore perspective.

1.65. One respondent queried whether an offshore generator connected to a licence exempt offshore distribution network is required to comply with industry codes.

1.66. Two respondents noted that some policy positions had not been reflected in the changes proposed to the relevant documents.

1.67. One respondent requested informal guidance about the interpretation of the proposed technical requirements.

Transmission Licence

1.68. Two respondents questioned whether the proposed standard conditions in Section E were consistent with the proposal for light touch regulation arrangements for offshore transmission. Another respondent considered that the obligations in respect of Indebtedness (standard condition E10) would hinder some types of financing arrangements for offshore transmission projects.

1.69. One respondent asked whether the proposed transmission licence obligation in respect of Regulatory Accounts (E2), Change of Financial Year (E3) and Security arrangements (E12) could be removed.

1.70. One respondent asked whether the Authority would apply Section E in full or only in part in respect of specific OFTOs. Another respondent queried whether there were arrangements currently treated as special conditions for existing transmission licensees, that could be defined as standard conditions for OFTOs

BSC

1.71. Three respondents provided comments relating to the proposed changes to the BSC. There were no objections to the proposed changes.

1.72. One respondent questioned whether the offshore transmission system would be considered an external system outside Great Britain.

1.73. One respondent noted the proposal that the Transmission Company take responsibility for the Offshore Transmission Connection Point was inconsistent with most other transmission connection points.

1.74. The same respondent noted that the proposed change to the definition of 'Grid Supply Point' was not required.

1.75. The same respondent also asked for clarification that there will not be any change to the requirements for BM Units and that offshore generation and/or demand will be represented in the BSC as BM units in the normal way.

1.76. One respondent noted that the proposed changes to the BSC may have an impact on BSCPs and requested early consideration of BSCP 02, 06, 20 and 27 to allow registration and management of new offshore metering systems.

Connection and Use of System Code (CUSC)

1.77. Two respondents provided comments on the proposed drafting of the CUSC.

1.78. The following points were raised and have been addressed through revised drafting of the CUSC. Changes since the last publication are set out in Annex 3.

- The definition of 'Relevant Transmission Owner' should be amended to relate to the transmission owner responsible for the specific offshore transmission system linked to the specific generator – the drafting of the main body of the CUSC has been amended to address this.

- The proposed Interface Agreement was only relevant where the OFTO owned the transmission platform.
- Is six months an acceptable timescale for the removal of assets from an offshore platform after termination of an agreement?

1.79. One respondent noted that changes to CUSC are linked to the final framework for charging, access and compensation.

1.80. Both respondents raised concerns that the Company has the ability to modify the Bilateral Connection Agreement and Construction Agreement.

1.81. Both respondents raised concerns that the Company has the ability to terminate the Bilateral Contract Agreement. One respondent felt that the Agreement should be varied rather than terminated. One respondent requested that termination should only be a result of actions within the user's control.

1.82. One respondent requested clarification that Appendices O and P of the Construction Agreement were definitive lists.

Grid Code

1.83. Seven respondents provided comments on changes to the Grid Code.

1.84. Respondents were seeking clarification in respect of the:

- Scope of Offshore Grid Entry Points and Offshore Grid Supply Points;
- Proposed change to the definition of a large power station (particularly in respect of the proposed 10MW threshold for power stations connected to an offshore transmission system);
- Arrangements for payment to an offshore generator for reactive power services provided to NGET; and
- Generator's ability to register a group of strings of turbines as a single BM unit in light of the proposed GBSQSS requirements that appear to require a double busbar arrangement on the offshore platform.

1.85. One respondent considered that the offshore generator should be able to decide whether the design of the offshore transmission system required for its connection, should make use of reactive power capability offered as part of the generator's application under the CUSC.

1.86. One respondent was concerned by the risk under the proposed arrangements that onshore transmission owners would not be represented at GCRP.

System Operator Transmission Owner Code (STC)

1.87. Six respondents provided comments on the proposed drafting of the STC.

1.88. One respondent considered that the proposed TO Construction Agreement did not adequately reflect the offshore transmission proposals in respect of the fixed price control arrangements, the proposed availability incentive and the financing arrangements permitted by the proposed transmission licence. A further respondent considered that a standard agreement in the STC should be a guide only and allow for OFTO discretion to deal with project specific issues.

1.89. One respondent considered that the boundary between an offshore transmission system and the onshore transmission system should be defined by Ofgem and not NGET. A further respondent considered that the offshore platform should be owned by the OFTO.

1.90. One respondent did not consider that the requirements proposed in STC Section K appropriately reflected the relevant reactive power capability range requirements defined in the Grid Code. This respondent observed that for long cable circuits, a zero reactive power transfer requirement at the point of connection to the onshore system may not be appropriate. It considered that the proposed obligations in respect of reactive power capability requirements are an example of discriminatory arrangements.

1.91. One respondent considered that the proposed requirement for all OFTO equipment to be fully compliant with IEC standards to be overly restrictive. This respondent noted a view that there was not an equivalent obligation in respect of onshore transmission licensees.

1.92. Respondents provided comments on the draft STC change proposals, advising that the proposed:

- Governance arrangements are difficult to understand.
- Process for dealing with connection applications needs to be developed.
- Arrangements for construction securities are not sufficiently developed or defined.
- Changes do not provide for an OFTO to enter into an interface agreement with a distribution licensee in respect of an embedded transmission connection.

1.93. Respondents observed that:

- The STC should develop to reflect Grid Code developments in respect of generator compliance.
- Consideration should be given to a single commissioning party approach with handover to appropriate licensed party on commissioning.
- There should not be a need for additional GBSO funding if an OFTO opts for the GBSO to directly control its offshore transmission system.

GB Security and Quality of Supply Standard (GBSQSS)

1.94. Seven respondents provided comments relating to the proposed changes to the GB SQSS.

1.95. Respondents were seeking clarification in respect of the:

- limit on generation capacity on a single cable circuit.
- treatment of compliance issues and derogation requests particularly in respect of transitional projects before a transmission licence is granted;
- treatment of two offshore cable connections to either side of a single onshore substation that is run split;
- justification for the proposal to apply MITS criteria to interconnected offshore networks; and
- GBSQSS criteria that would apply to connections to multiple generators using different technologies.

1.96. Respondents also questioned the:

- justification for the proposal for a double busbar at both offshore and onshore connection points;
- account taken, as part of the cost benefit analysis work, of the impact to an offshore generator of an extended transmission system outage;
- need for a further review of the GBSQSS to define security criteria that would be applicable for the design of offshore connection for R3 projects; and
- intended requirements in respect of limits on voltage step changes.

Distribution Connection and Use of System Agreement (DCUSA)

1.97. Two respondents provided comments relating to the proposed changes to the DCUSA. There were no objections to the proposed changes but one respondent raised concerns about the means by which onshore distribution works can be integrated into NGET's connection application process and the implications of NGET being treated under a different category under DCUSA than is proposed for the Distribution Code.

Distribution Code

1.98. Two respondents provided comments relating to the proposed changes to the Distribution Code. There were no objections to the proposed changes but one respondent raised concerns about the means by which onshore distribution works can be integrated into NGET's connection application process and the implications of NGET being treated under a different category under DCUSA than is proposed for the Distribution Code.

Appendix 2 – List of respondents to Ofgem/BERR June 2008 Regulatory Policy Update

Ofgem and DECC would like to thank all respondents to the June 2008 Policy Update for their comments. The following submitted non-confidential responses.

British Energy
British Wind Energy Association
Bryan Norris
Centrica
Dong Energy
EDF Energy
E.ON UK
National Grid (GBSO)
National Grid (TO)
Poyry Energy Consulting
RAB Grid Group
RWE npower
Scottish Power Energy Networks
Scottish Power Renewables
Scottish and Southern Energy
Scottish Renewables
StatoilHydro ASA
Warwick Energy

Appendix 3 - Consultation Response and Questions

1.1. DECC and Ofgem 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 9 January 2008, although we would welcome comments of a material nature by 18 December, and should be sent to:

Offshore Transmission Team
OFGEM,
9 Milbank,
London,
SW1P 3GE

Or by email to: offshoretransmission@ofgem.gov.uk

1.4. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website[1]. Respondents may request that their response is kept confidential. DECC/Ofgem 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. Any questions on this document should, in the first instance, be directed to:

Mr Sam Cope,
OFGEM,
9 Milbank,
London,
SW1P 3GE
020 7901 7239
Sam.Cope@ofgem.gov.uk

[1] www.ofgem.gov.uk

Questions - Chapter 1

➔ There are no questions

Questions - Chapter 2

➔ We seek respondents' views as to our revised approach to the OFTO of last resort mechanism

➔ We seek respondents view on the drafting of the licence condition that reflects our updated policy (see separate annex 1)

Questions - Chapter 3
We would welcome views on our approach to the following issues:

➔ Extending or re-tendering licences at the end of the 20 year revenue stream – what are your views on the proposed options?

➔ Indexation and adjustment of the revenue stream – do you have comments on our proposals in respect of:

- Inflation?
- Refinancing?
- Business rates and licence fees?
- Any others?

➔ What are your views about a possible delivery incentive for onshore TO/DNOs?

➔ Can our detailed proposal on the availability incentive be further refined and improved?

➔ How should Ofgem appropriately respond to persistent poor performance by an OFTO, and how should any revocation mechanism be designed?

➔ What are your views on our proposal to manage the risk of OFTO abandonment through OFTO of last resort scheme?

Questions - Chapter 4

➔ Does the drafting in the annexed codes accurately reflect the policy positions set out in this document?

Questions - Chapter 5

➔ There are no questions

Questions - Chapter 6
➔ There are no questions

Appendix 4 - List of separate Annexes to this document

1.1. As described in the main body of this document, we are consulting on a range of amendments to industry codes, the transmission licence and the GBSSQSS. The drafts of these documents are published in parallel to this document as a series of Annexes. The table below lists the relevant documentation.

Document	Separate Annex No.
Consolidated Transmission Licence	**1**
BSC	**2**
CUSC	**3**
DCUSA	**4**
Distribution Code	**5**
Grid Code	**6**
STC	**7**
GBSSQSS	**8**
Special Licence Conditions	**9**

Appendix 5 - Operational Availability and performance incentives

Operational availability

1.1. As outlined in the body of the consultation document, Ofgem considers that the operational availability incentive should provide an OFTO with incentives to address both short and longer-term transmission outages.

1.2. The current proposal for the operational availability incentive is as follows:

- An OFTO's 20 year regulated revenue stream will commence upon asset completion, and will not be based on the ongoing performance of that asset; and
- To incentivise availability[2], the OFTO will be liable to make penalty payments, capped at 10 percent of annual revenue, where availability falls below a pre-defined target (currently proposed to be 98 percent).

1.3. Given these parameters, it is foreseeable that an OFTO's incentive to promptly repair transmission outages in a particular year may be weakened. For example, if an outage is significant enough for the 10 percent cap to be reached by month four of the year, the OFTO will have little incentive to fix subsequent faults for the rest of the year.

1.4. Ofgem remains of the view that the current proposal to cap operational availability penalties at 10 per cent of annual revenue is appropriate; this level of revenue exposure provides a significant performance incentive while not being so substantial that it undermines the financial viability of the OFTO. This is confirmed by Ofgem's advisor's financial modelling (which is attached as appendix 8) which suggests that several years of a 10 per cent penalty would not threaten the financial stability of the OFTO (even with gearing of 90 per cent). However, Ofgem recognises that the incentive scheme needs to be flexible to incentivise OFTOs to deliver sustained good performance, even once the 10 percent cap has been reached.

1.5. In the June 2008 Policy Update, Ofgem noted that there may be scope for inclusion of a permit mechanism to incentivise sustained good performance. Ofgem has worked with its advisors to develop a proposed model for the permit mechanism.

1.6. Under the proposed permit mechanism, good performance in a given year will enable the OFTO to earn credits which can be used to offset any poor performance in subsequent years. The banking mechanism would operate as follows:

[2] This incentive is based on OFTO asset availability, which is defined as the proportion of the year that the assets are available to use for connected generators.

- in years when network availability is above the target, the OFTO would gain availability permits (credits) which it would "bank" to use in subsequent years to reduce its target availability;

- if the network's availability falls below the adjusted target, the OFTO would be subject to financial penalties, capped at 10 percent;

- once the penalty cap is reached, the OFTO would start accruing availability debits for any further outages, which then would have to be made up for in subsequent years; and

- in years where the OFTO has availability debits "banked", the target availability would be adjusted upwards (to a maximum of 100%) so that the probability of the OFTO having to make penalty payments would be significantly increased.

1.7. No distinction would be made in the mechanism between planned and unplanned outages. Both, therefore, would have equal weight when penalties are being calculated. However, the target level would be set below 100 per cent. This makes allowance for the fact that a certain amount of planned maintenance will take place. The currently proposed target level is 98 per cent availability for all projects.

1.8. Partial availability, defined as a situation where a proportion of the transmission assets are unavailable, would be treated in the same way under this mechanism as complete unavailability. That is to say, two hours where 50 per cent of capacity is unavailable is equivalent in the incentive to one hour where 100 per cent of capacity is unavailable.

1.9. We have proposed that the default availability target will be 98 per cent. Under the permit system, this target can be adjusted in each year in two ways. Firstly, the OFTO can choose to cash in some of its banked credits. Each credit can be cashed in for a reduction in the target level. In the example below the exchange rate is one credit for a 0.1 per cent target reduction. The decision to cash in credits would be made when actual performance for the year is known. An OFTO can use credits previously accrued for good performance in this way to avoid paying a penalty for longer outages.

1.10. The second means by which the target can be adjusted is by debits carried forward from previous years. Any debits carried forward must be paid off, at a rate of 0.1 per cent of target increase per debit, up to the maximum target of 100 per cent. Up to 20 debits therefore can be paid off in any given year. This will not be optional for the OFTO – the target must be adjusted. This will increase the likelihood of having to make penalty payments in subsequent years following a major outage.

1.11. The maximum number of credits and debits that an OFTO could earn in a given year would be directly related to the availability target for that year. For instance, if the availability target is 98 per cent, the OFTO could earn credits related to performance of up to 2 percent above the availability target (i.e. for delivering 100 per cent availability). The actual number of credits earned would depend upon the multiplier used to convert performance, expressed as a percentage, into credits (see

below for an example of these multipliers). Similarly, the maximum number of debits that an OFTO could accrue, given an availability target of 98 per cent, would be related to performance of up to 98 per cent below the availability target.

1.12. If debits were accrued at the same rate as financial penalties, an OFTO, in the event of a major outage, could rapidly accrue sufficient debits to raise the availability target to 100% for the remainder of the revenue stream. This would prevent performance in each of these subsequent years affecting the performance target for the following year (since it would already be fixed at 100 per cent), effectively blunting the continued effectiveness of the incentive. Having two penalty accrual rates enables the incentive rate to have a sharp impact on short interruptions and maintain an incentive to avoid long interruptions, without stopping subsequent years' performance from affecting the penalties received. The different rates are hence designed to balance incentives between short and long interruptions.

1.13. At the end of the 20 year regulated revenue period, it could be that the OFTO would be able to cash-in any accumulated availability permit credit balance, and conversely would be liable to pay for any accumulated availability permit debit balance.

Straw man

1.14. We have set out an example of the model below. For the purposes of this explanation, the following values are used for the model:

- target rate of availability is 98 per cent;
- The cap on financial exposure in any year is 10 percent of revenue;
- The rate at which financial penalties are accrued is 0.4 percent of annual revenues for every 0.1 percentage point shortfall below their target availability;
- The rate at which availability permits accrue when performance is above the target is 1 permit for every 0.1 per cent performance exceeds the target;
- The rate at which availability permits are debited when performance is below the target is 1 permit for every 0.5 per cent performance is below the target; and
- Each banked permit credit can be exchanged for a 0.1 per cent decrease in the target for a given year.
- Each banked debit would be exchanged for a 0.1 per cent increase in the target for a given year until 100 per cent availability target is reached.

In this example, the starting availability target is 98 percent, which the OFTO exceeds in years 1 and 2, earning availability permits (credits) and a lower availability target for year 3.

However, in year 3, asset availability drops to below 50 percent due to a significant technical fault. As a result of this level of performance, the 10 percent cap on penalties is reached during the year, and the OFTO begins accruing availability debits

once the cap is reached. Additionally, the availability target for year 4 becomes 100 percent, requiring the OFTO to pay penalties for any outage in year 4.

In year 4, the OFTO's performance improves considerably. Because the adjusted target is 100 percent, the OFTO is nevertheless liable for some penalty payments. However, these are not sufficient to reach the 10 percent cap, and therefore no additional availability debits are accrued.

Continuing high performance in the following years allows availability credits to build up, effectively allowing the OFTO to work off debits accrued as a result of the major outage in year 3.

Ofgem welcomes comments on whether there is merit in attaching a banking mechanism to the availability incentive, as outlined above. Any comments on how the model may be refined, or potential alternatives to the above proposals, would also be welcome.

Appendix 6 - Evidence of subsea cable performance

Table 1: IFA Reliability and Availability data

IFA Reliability and Availability			
Year	**Bipole**	**Reliability (%)**	**Availability (%)**
1994	1	99.9	97.1
	2	100.0	97.6
1995	1	99.5	97.8
	2	99.5	98.0
1996	1	99.8	98.2
	2	97.9	96.5
1997	1	99.6	98.0
	2	99.9	97.9
1998	1	99.6	97.7
	2	99.8	97.2
1999	1	100.0	96.1
	2	99.9	96.2
2000	1	97.2	95.5
	2	99.8	97.9
2001	1	99.9	98.4
	2	98.9	96.1
2002	1	97.0	95.5
	2	99.3	97.7
2003	1	80.1	78.9
	2	99.6	98.0
2004	1	99.8	95.7
	2	99.6	97.7
2005	1	99.5	96.0
	2	96.7	94.5
Average		98.5	96.3
Minimum		80.1	78.9
Excluding 2003			
Average		99.2	97.0
Minimum		96.7	94.5

Notes:
Source: IFA User Guide, Issue 5
Availability is the percentage that the cable is in use
Reliability is availability minus planned maintenance

Table 2: Moyle Reliability and Availability data

Planned outages	Hours
Total outages	325.20
Average total outage per year	72.30
Durations	
Maximum	24.00
Mean	6.64
Median	3.00
Mode	24.00
Forced outages	
Total outages	54.15
Average total outage per year	10.83
Durations	
Maximum	9.63
Mean	1.64
Median	1.06
Mode	0.31
Average Availability (%)	**99.04**
Average Reliability (%)	**99.86**

Notes:
Source: Moyle Interconnector Ltd. Record of historic and planned outages, updated 08/06/2008
Averages are calculated over the 4.5 years for which data is available.
Availability is the percentage that the cable is in use.

These figures suggest that subsea cables can operate with reliability of >99%, with annual maintenance of around 1–3%. The Basslink cable in Australia also has reliability of over 99%[3].

[33] *The Basslink project*, presentation given by Edward Astle of National Grid to an IGEM conference, available at www.igem.org.uk

Appendix 7 - Overview of existing onshore and proposed offshore regimes

1.1. This appendix outlines the key contractual and commercial relationships that form the existing onshore transmission regime and contrasts these arrangements with those additional features that are being proposed as part of the offshore regime. It is written primarily for stakeholders from the investment community who have a limited experience of the regulatory governance of the energy industry.

1.2. In the energy markets, primary and secondary legislation, licenses and codes define the regulatory framework in which industry participants operate their businesses. This consultation document sets out the new licence conditions and codes that will define the commercial and regulatory relationships which will govern the provision of offshore transmission services.

1.3. Both Ofgem and DECC are aware that opportunities in offshore transmission have attracted interest from new investors, who may be unfamiliar with the existing industry structure, rules and regulation. The key industry players include the GBSO, onshore Transmission Owners, parties interested in becoming OFTOs, generators developing (or interested in developing) offshore generation projects, Government and Ofgem.

1.4. A legal overview now explains the relevant Primary Legislation, Licence Obligations; and Code Obligations.

Primary Legislation - Electricity Act 1989

1.5. The Electricity Act specifies five types of prohibited activity. Distribution, Transmission, Generation, Supply and Interconnector. For a party to carry out any of the above activities they must first be granted a licence to do so by the Authority (or be exempted from such requirements by the Secretary of State). The power to grant such licences is set out in Section 6 of the Electricity Act.

1.6. This power will be the basis on which offshore transmission licences will be granted. In addition, Section 6C of the Electricity Act gives the Authority the power to make regulations to enable it to determine by competitive tender the successful offshore transmission licence holders for the purposes of the offshore transmission regime.

Primary Legislation - Energy Act 2004

1.7. The Energy Act provides for broad powers to develop a regulatory regime to regulate the transmission of electricity generated offshore. The Energy Act also provides powers for the Secretary of State to make appropriate changes to relevant codes, agreements and licence conditions, which regulate onshore electricity transmission and distribution, for the purposes of regulating offshore electricity transmission and distribution.

1.8. Section 92 of the Energy Act inserts section 6C of the Electricity Act.

1.9. The provisions mentioned in paragraphs 1.7 and 1.8 are not yet commenced but they will be so that everything is in place for the regime to Go-Live.

Primary Legislation - The Energy Bill

1.10. Section 89 of the Energy Bill makes changes to the Electricity Act so that certain activities offshore require a licence. Upon commencement of this section of the Bill those participating in offshore transmission will require a licence to operate.

Licences

1.11. As stated above, the Electricity Act provides the Authority with powers to grant licences authorising certain otherwise prohibited activities (including the participation in transmission of electricity).

1.12. The transmission licence defines obligations specifying that must be complied with by licensees as a condition of the authorisation to participate in transmission.

1.13. To implement the proposed offshore transmission regime, the transmission licence (and associated GBSQSS) and relevant industry codes[4] will be modified by the Secretary of State so that they are tailored to cover offshore activities.

Industry Codes

1.14. The transmission licence standard conditions include a requirement to have in force and comply with the STC which applies to the three current transmission licensees. In the case of the GBSO, the transmission licence standard condition also include requirements to have in force and comply with the BSC, CUSC and Grid Code and to comply with the Distribution Code.

1.15. The following provides a brief description of the industry codes that are relevant to the proposed offshore transmission regime. We are proposing changes to the transmission licence standard conditions to require OFTOs to comply with the STC and NGET to comply with DCUSA as part of the offshore transmission regime. We have also proposed that offshore generators connecting to an offshore transmission system would be required (as a condition of a generation licence and/or by the GBSO as a contractual obligation) to comply with the BSC, CUSC, Distribution Code and Grid Code.

System Operator Transmission Code

1.16. The STC defines the contractual framework that applies between the GBSO and Transmission Owners. Current parties to the STC are NGET as the GBSO, Scottish

[4] Balancing and Settlement Code (BSC), Connection and Use of System Code (CUSC), Distribution Connection and Use of System Agreement (DCUSA), Distribution Code, Grid Code, and System Operator Transmission Owner Code (STC).

Hydro-Electric Transmission Ltd and SP Transmission Ltd. The STC defines obligations in respect of the:

- Provision of transmission services to the GBSO;
- Use of transmission services by the GBSO;
- Coordination of investment planning, and
- Mechanism for payments from GBSO to Transmission Owner and vice versa.

Grid Code

1.17. The Grid Code sets out, the technical requirements for connection to and/or use of the GB transmission system. These requirements include technical characteristics of electrical plant and also information provision requirements. The Grid Code is designed to facilitate the efficient and economic operation of the GB transmission system, to facilitate competition in electricity generation and supply and also to promote the security of the electricity system as a whole. The GBSO is required to have the Grid Code in force (standard Condition C14 of the transmission licence). Other electricity licensees are required to comply with the Grid Code. The GBSO also requires compliance with the Grid Code contractually via the CUSC and STC (in respect of relevant parts of the Grid Code).

Connection and Use of System Code

1.18. The CUSC constitutes the contractual framework for connection to and use of GB transmission system. The obligation for the GBSO to have the CUSC in force is set out in standard condition C10 of the transmission licence. Other electricity licensees are required to become a CUSC party and comply with the CUSC. The GBSO also requires any party seeking connection to and/or use of the GB transmission system to become a CUSC party

Balancing and Settlement Code

1.19. The BSC defines the framework for balancing and settlement arrangements. The GBSO is required to have the BSC in force (standard condition C3 of the transmission licence), an obligation that is discharged by a separate company Elexon Other electricity licensees are required to become a BSC party and comply with the BSC . Unlicensed users of the GB transmission system may be contractually required by the GBSO to become a BSC party.

Distribution Code

1.20. The Distribution Code sets out the technical requirements for connections to and/or use of a distribution system operated by a distribution licensee. Distribution licensees are required by standard condition 9 of the electricity distribution licence to have a Distribution Code in force. This obligation has been discharged by ex-Public

Electricity Supplier distribution licensees via a single GB wide Distribution Code. Other types of electricity licensees are required to comply with the Distribution Code. Distribution licensees also require compliance with the Distribution Code contractually via the DCUSA and/or site specific connection agreements.

Distribution Connection and Use of System Agreement

1.21. The DCUSA is a multi-party contract between distributors, suppliers and generators which constitutes the contractual framework for the connection to and use[5] of electricity distribution networks. It replaced numerous bi-lateral contracts to provide a consistent approach to the relationship between these parties within the electricity industry. The obligation to have the DCUSA in force is set out in standard condition 9B of the distribution licence.

[5] Currently DCUSA mainly deals with use of a distribution system.

Appendix 8 – Financial Model

The following model was developed for Ofgem by The Brattle Group

1	Tax Rate	[1]	KPMG Tax Survey 2006	30%
2	Installed Capacity (GW)	[2]	Assumed	278
3	Capex (million £)	[3]	Assumed	40.0
4	Opex as %age capex	[4]	Assumed	3%
5	Unlevered WACC	[5]	Assumed	10%
6	Debt Rate	[6]	Assumed	7%
7	Refinanced Debt Rate	[7]	Assumed	5%
8	Year of Refinancing	[8]	Assumed	2
9	Minimum Debt Coverage Ratio	[9]	Assumed	1.1
10	Initial Leverage	[10]	Assumed	50%
11	Maximum Leverage	[11]	Assumed	80%
12	Inflation	[12]	Assumed	2%
13	Depreciation Schedule (Years)	[13]	Assumed	10

				-1	0	1	2	3	4	5	6	7	8	9	10
14	Capex	[14]	Assumed	20.0	20.0										
15	Unexpected Capex	[15]	Assumed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Total Capex	[16]	[14]+[15]	20.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	Expected Revenue	[17]	See Note	0.0	0.0	5.6	5.8	5.9	6.0	6.1	6.2	6.4	6.5	6.6	6.7
18	Revenue Adjustment	[18]	See Note	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	Penalties	[19]	See Note	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	Actual Revenue	[20]	[17]+[18]-[19]	0.0	0.0	5.6	5.8	5.9	6.0	6.1	6.2	6.4	6.5	6.6	6.7
21	Opex	[21]	[3]x[4]	0.0	0.0	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4
22	Unexpected Opex	[22]	Assumed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	Total Opex	[23]	[21]+[22]	0.0	0.0	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4
24	EBITDA	[24]	[20]-[23]	0.0	0.0	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3
25	Depreciation	[25]	See Note	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
26	Unexpected Depreciation	[26]	See Note	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	Total Depreciation	[27]	[25]+[26]	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
28	EBIT	[28]	[20]-[23]-[27]	0.0	0.0	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3
29	Taxes	[29]	[1]x[28]	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
30	Net Income	[30]	[28]-[29]	0.0	0.0	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9
31	After Tax Cash Flows	[31]	[30]+[27]-[16]	-20.0	-20.0	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.8	4.8	4.9
32	NPV	[32]	NPV of [31]@[5]	-3.9	17.7	41.4	40.8	40.1	39.2	38.2	37.0	35.6	34.0	32.1	30.0
33	After-Tax Revenues	[33]	[20]-[29]	0.0	0.0	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.2	6.4
34	Fixed Costs	[34]	[16]+[23]	20.0	20.0	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4
35	PV of Revenues	[35]	NPV of [33]@[36]	48.6	52.9	57.7	56.9	55.9	54.8	53.4	51.8	50.0	47.9	45.5	42.8
36	Revenue Discount Rate	[36]	Set so [40]=0	9.0%											
37	PV of Costs	[37]	NPV of [34]@[38]	-52.5	-34.8	-15.8	-15.6	-15.4	-15.2	-14.9	-14.5	-14.1	-13.7	-13.1	-12.6
38	Cost Discount Rate	[38]	[6]	7.0%											
39	NPV	[39]	[35]-[37]	-3.9	18.2	41.9	41.2	40.5	39.6	38.5	37.3	35.8	34.2	32.3	30.2
40	NPV Check	[40]	[32]-[39]	0.0											
	WACC Over Time														

41	Revenue Factor	[41]	[35]/[39]		2.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
42	Cost Factor	[42]	[37]/[39]		-1.9	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
43	WACC	[43]	[41]x[36]+[42]x[38]		12.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%
44	Debt	[44]	See Note	20.0	21.4	22.9	33.0	31.9	30.8	29.6	28.3	27.0	25.6	24.2	22.7
45	Fixed Repayments	[45]	See Note	0.0	0.0	2.2	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
46	Interest	[46]	See Note	1.4	1.5	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.2	1.1
47	End of Year Principal	[47]	[44]+[46]-[45]	21.4	22.9	22.3	31.9	30.8	29.6	28.3	27.0	25.6	24.2	22.7	21.1
48	Tax Shield	[48]	[46]x[1]	0.0	0.0	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3
49	PV of Tax Shield	[49]	Sumproduct [48]:[57]	3.9	4.2	4.5	4.2	3.9	3.6	3.3	3.0	2.7	2.4	2.1	1.9
50	Leverage	[50]	[39]/[44]		118%	55%	80%	79%	78%	77%	76%	75%	75%	75%	75%
51	Interest Coverage	[51]	[24]/[46]		0.0	2.1	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9
52	Residual Cash Flow	[52]	$[31]+[44]_t-[44]_{t-1}-[46]$	0.0	-20.0	4.3	12.9	1.7	1.8	1.8	1.9	2.0	2.0	2.1	2.2
53	Return On Equity	[53]	IRR of [52]	17.3%											
54	APV	[54]	[32]+[49]	0.0	21.9	45.9	45.1	44.0	42.9	41.5	40.0	38.3	36.4	34.3	31.9
55	£/MW	[55]	$[17]_1x10^3/[2]$	20.30											
56	Debt Rate	[56]	See Note	7%	7%	7%	5%	5%	5%	5%	5%	5%	5%	5%	5%
57	Debt Discount Factor	[57]	$[57]_t=[57]_{t-1}/(1+[56])$	1.00	0.93	0.87	0.83	0.79	0.75	0.72	0.68	0.65	0.62	0.59	0.56

				11	12	13	14	15	16	17	18	19	20
14	Capex	[14]	Assumed										
15	Unexpected Capex	[15]	Assumed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Total Capex	[16]	[14]+[15]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	Expected Revenue	[17]	See Note	6.9	7.0	7.2	7.3	7.4	7.6	7.7	7.9	8.1	8.2
18	Revenue Adjustment	[18]	See Note	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	Penalties	[19]	See Note	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	Actual Revenue	[20]	[17]+[18]-[19]	6.9	7.0	7.2	7.3	7.4	7.6	7.7	7.9	8.1	8.2
21	Opex	[21]	[3]x[4]	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7
22	Unexpected Opex	[22]	Assumed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	Total Opex	[23]	[21]+[22]	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7
24	EBITDA	[24]	[20]-[23]	5.4	5.5	5.6	5.7	5.9	6.0	6.1	6.2	6.3	6.5
25	Depreciation	[25]	See Note	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	Unexpected Depreciation	[26]	See Note	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	Total Depreciation	[27]	[25]+[26]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	EBIT	[28]	[20]-[23]-[27]	5.4	5.5	5.6	5.7	5.9	6.0	6.1	6.2	6.3	6.5
29	Taxes	[29]	[1]x[28]	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9
30	Net Income	[30]	[28]-[29]	3.8	3.9	3.9	4.0	4.1	4.2	4.3	4.4	4.4	4.5
31	After Tax Cash Flows	[31]	[30]+[27]-[16]	3.8	3.9	3.9	4.0	4.1	4.2	4.3	4.4	4.4	4.5
32	NPV	[32]	NPV of [31]@[5]	27.6	26.2	24.6	22.7	20.6	18.1	15.3	12.1	8.6	4.5
33	After-Tax Revenues	[33]	[20]-[29]	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.2	6.3
34	Fixed Costs	[34]	[16]+[23]	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7
35	PV of Revenues	[35]	NPV of [33]@[36]	39.7	37.5	35.1	32.3	29.1	25.5	21.5	17.0	11.9	6.3
36	Revenue Discount Rate	[36]	Set so [40]=0										
37	PV of Costs	[37]	NPV of [34]@[38]	-11.9	-11.2	-10.4	-9.5	-8.5	-7.4	-6.1	-4.8	-3.3	-1.7
38	Cost Discount Rate	[38]	[6]										
39	NPV	[39]	[35]-[37]	27.8	26.4	24.7	22.8	20.6	18.2	15.3	12.2	8.6	4.5
40	NPV Check	[40]	[32]-[39]										
	WACC Over Time												

41	Revenue Factor	[41]	[35]/[39]	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
42	Cost Factor	[42]	[37]/[39]	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
43	WACC	[43]	[41]x[36]+[42]x[38]	9.9%	9.9%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%
44	Debt	[44]	See Note	21.1	19.4	17.6	15.8	13.9	11.8	9.7	7.4	5.1	2.6
45	Fixed Repayments	[45]	See Note	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
46	Interest	[46]	See Note	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.1
47	End of Year Principal	[47]	[44]+[46]-[45]	19.4	17.6	15.8	13.9	11.8	9.7	7.4	5.1	2.6	0.0
48	Tax Shield	[48]	[46]x[1]	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0
49	PV of Tax Shield	[49]	Sumproduct [48]:[57]	1.6	1.4	1.1	0.9	0.7	0.5	0.4	0.2	0.1	0.0
50	Leverage	[50]	[39]/[44]	76%	74%	71%	69%	67%	65%	63%	61%	59%	57%
51	Interest Coverage	[51]	[24]/[46]	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.4
52	Residual Cash Flow	[52]	$[31]+[44]_t$ -$[44]_{t-1}$ -[46]	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.6	1.7	1.8
53	Return On Equity	[53]	IRR of [52]										
54	APV	[54]	[32]+[49]	29.2	27.6	25.7	23.6	21.3	18.6	15.7	12.4	8.7	4.6
55	£/MW	[55]	$[17]_1 x 10^3/[2]$										
56	Debt Rate	[56]	See Note	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
57	Debt Discount Factor	[57]	$[57]_t=[57]_{t-1}/(1+[56])$	0.54	0.51	0.49	0.46	0.44	0.42	0.40	0.38	0.36	0.35

Notes and Sources:
All prices are in million £
[17],[18],[21] inflated at [12]
[17]Expected Revenue set so that before events [54]=0
[18]Revenue Adjustment set in chosen year so that after events [54]=0
[19] Includes impact of penalties on the OFTO
[25]: Capex depreciated over specified schedule from first year of operation
[26]: Unexpected Capex depreciated over specified schedule or remaining years of contract
[44]: Debt rolled over until first year of operation, paid off at a constant rate which changes at refinancing
[45]: Fixed repaymets both before and after refinancing are such that the principal is paid off in last year of concession
[46] = [6]x[44] before refinancing; [7]x[44] after refinancing

[56] = [6] before refinancing; [7] after refinancing

Appendix 9 – Background to the development of the new regime

1.1. The Energy Act 2004 (EA 2004) provides powers for the Secretary of State to make changes to the codes, agreements and transmission or distribution licences for purposes connected with offshore electricity transmission and distribution.

1.2. Since taking the EA 2004 powers, the Government has been working with Ofgem to establish an offshore transmission licensing regime to regulate the conveyance of electricity along high voltage lines offshore and associated plant and equipment which connect offshore generating stations to the onshore electricity grid.

1.3. The June 2008 Policy Update formed part of the ongoing process by BERR and Ofgem to put in place a regulatory regime for the connection of significant amounts of renewable offshore generation to the onshore electricity network, in a timely and cost effective manner, whilst maintaining the integrity of the system as a whole and achieving best value for electricity customers.

1.4. Under the new regime Ofgem, as the regulator of the gas and electricity industries in Great Britain, will be responsible for regulating offshore transmission licensees, as it does for onshore transmission network companies.

1.5. In March 2006, the Government decided that the appropriate model for the regulation of offshore electricity transmission was through a regulated price control approach, extending the principles of the onshore regulated price control approach into the offshore sector.

1.6. The Government concluded then that extending the principles that govern the regulation of onshore electricity transmission offshore was the correct approach to take for licensing offshore transmission, because it would:

- Ensure consistency with the regulatory arrangements onshore;
- Provide assistance to offshore developers by recovering the costs of building offshore grid connections through NGET's charging methodology – thus spreading the costs they would pay to connect to the onshore grid over a number of years, as happens onshore;
- Mean that the responsibility for development of the offshore transmission network would not fall to generators alone and instead the risks and costs of developing offshore grid connections would be shared by the System Operator and OFTOs; and
- Ensure a co-ordinated approach to the development of the offshore network, providing an additional environmental benefit, by reducing the unnecessary duplication of transmission assets.

1.7. The Government also decided that post commencement of sections 89, 90, 91, 92 and 180 of the EA 2004 participation in the transmission of electricity offshore at voltages of 132kV and above will be a prohibited activity without a licence.

1.8. In developing the regime, the Government announced in August 2006 that NGET's role as GBSO would be extended offshore[6]. As a result NGET will be GBSO both onshore and offshore, once the relevant parts of the EA 2004 commenced and appropriate modifications made to NG's licence for those purposes. Until then NGET is acting as offshore GBSO designate and is assisting in the development of the new regime.

1.9. In November 2006 the then Department of Trade and Industry (DTI) published an Open Letter to industry clarifying the regulatory position of high and low voltage offshore connections[7]. In the same month the DTI also published a consultation document which gave notice of, and invited views on, a proposal for the exemption by class of offshore electricity distributors from the requirement to hold a distribution licence[8].

1.10. Also in November 2006 the DTI and Ofgem jointly published a consultation document on the options for licensing those providing the offshore transmission connections between generators located in offshore waters and onshore electricity networks[9]. The document invited views on two possible models for licensing OFTO activities under a price control regime. The two options were (i) multiple non-exclusive licences issued for the offshore area with competition for the right to build, own and operate offshore transmission assets ("non-exclusive approach")[10], or (ii) awarding licences by competitive tender for specific areas offshore, with the OFTO responsible for connecting all projects in that area ("exclusive approach").

1.11. On 1 March 2007, the Government announced its decision to grant a class exemption for offshore electricity distributors from the requirement to hold a distribution licence[11].

1.12. Later in March 2007, the Government announced its decision on the model of licensing for offshore transmission. The Government announced that it had concluded that the non-exclusive approach was the most appropriate model for licensing offshore transmission.

1.13. The day after publication of the March Government response, Ofgem published a 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.

[6] http://www.berr.gov.uk/files/file32874.pdf
[7] http://www.berr.gov.uk/files/file35598.pdf
[8] http://www.berr.gov.uk/files/file35593.pdf
[9] http://www.berr.gov.uk/files/file35530.pdf
[10] See further the proposals of the July 2007 Policy Statement, paragraphs 1.18 and 4.2
[11] http://www.berr.gov.uk/files/file38027.pdf

1.14. The Ofgem document set out a framework to deliver the appropriate changes in accordance with the Government's aims. Essentially it set out a proposed model or "straw man" for the proposed offshore regulatory regime. That straw man was further developed through discussion with industry through workshops and a series of work groups.

1.15. That process of discussion and development led to the publication by BERR and Ofgem of the July 2007 Policy Statement which set out initial proposals for a licensing and regulatory regime that would apply to offshore electricity transmission networks. That document included the following key proposals:

- That an OFTO would be responsible for designing, building, financing and maintaining the offshore transmission network. The OFTO would be selected by competitive tender and awarded a transmission licence. It would receive a regulated revenue stream for meeting its licence obligations over a predetermined regulated period. The OFTO would be incentivised to meet specified performance requirements during this period.
- The competitive tender process would include an annual tender application window for coordination purposes. Any person meeting the prequalification criteria could tender for an OFTO licence covering offshore transmission assets. The tender process would be triggered by a generator(s) 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 a licence to the successful OFTO.
- That there would be transitional arrangements for projects where the generator is already constructing or undertaking steps towards constructing the offshore transmission assets. The transitional arrangements would apply to projects that met certain pre-defined criteria. To assist the transition to the enduring arrangements there would be a two-stage process to enactment of the new regime. Those two stages would be (i) a 'Go-Active' date for the new regime to enable appropriate modifications to be made to licences, codes and agreements so that tenders can be held, and (ii) a 'Go-Live' date from which point unlicensed participation in the transmission of electricity offshore at voltages of 132kV and above would be a prohibited activity.

1.16. BERR and Ofgem published the January 2008 Policy Statement on 10 January 2008 confirming decisions as a result of the responses to the July 2007 Policy Statement and other stakeholder engagement. In particular, it set out:

- That Ofgem will be the body that runs the competitive tender process to determine who will be appointed as new licensed OFTOs;
- That the Government will seek additional powers in the Energy Bill to enable the Authority to recover its costs of running the tender process, and ensure sufficient commitment to the tender process, from parties participating in the tender (in most cases the generator and potential OFTOs);
- That the Government will also seek time-limited powers in the Energy Bill to enable the Authority, once an OFTO licence has been granted, to make a property transfer scheme in order to ensure that property is transferred from the developer to the successful OFTO in a fair, timely and effective manner. The

Authority will only have the power to do so in certain circumstances (which it is envisaged will arise when commercial negotiations fail) and upon application;
- That the new regime will Go-Active as soon as reasonably practicable after commencement of the Energy Bill provisions; and
- If the date of Go-Active was delayed, then the date of Go-Live would also be delayed to allow one year for tenders to provide a sufficient period for developers meeting criteria for transitional projects to have comfort that relevant OFTOs will be appointed before the new regime comes into effect.

1.17. Ofgem's January 2008 Policy Update was published on 14 January 2008 in which it sought views on the following:

- updated proposals on the design of the regulatory regime for offshore electricity transmission;

- updated proposals on how Ofgem envisages running the competitive tender process for both the enduring regime and transitional arrangements; and

- an update on implementation of the regime, including development of the various code, licence and agreement amendments to accommodate the offshore regime.

1.18. On 13 June 2008 Ofgem and BERR published the June 2008 Policy Update. It presented and sought views on updated policy proposals and for the first time presented for comment detailed drafting proposals on changes to the various codes, licences and agreements to accommodate the offshore regime. It also recognised that reviewing and revising the codes, licences and agreements was an important task and that they constituted a large volume of documentation. It therefore announced that an extra consultation would be added to the previous work programme to enable sufficient time for this to be carried out effectively. This would result in Go- Active moving to April 2009 and Go-Live moving to April 2010.

1.19. On 6 October 2008 Ofgem published a consultation document on the tender process, which is entitled "Offshore Electricity Transmission: Competitive Tender Process". The consultation documentation sets out the key requirements for bidders in the competition, what Ofgem expects by way of responses and also the key evaluation criteria Ofgem will use in the selection process.

Appendix 10 – The Authority's Powers and Duties

1.20. 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).

1.21. 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.12

1.22. 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 accordingly13.`

1.23. 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.

1.24. 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 them14; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.15

1.25. 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:

[12] entitled "Gas Supply" and "Electricity Supply" respectively.
[13] 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.
[14] 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.
[15] The Authority may have regard to other descriptions of consumers.

- Promote efficiency and economy on the part of those licensed16 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.

1.26. 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.

1.27. 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 Regulation17 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.

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

Appendix 11 - Glossary

A

Authority

The Gas and Electricity Markets Authority

B

BERR

Department for Business Enterprise and Regulatory Reform

BETTA

British Electricity Trading and Transmission Arrangements

BSC

Balancing and Settlement Code

C

CUSC

Connection and Use of System Code

D

DECC

Department of Energy and Climate Change

DC

Direct Current

DCUSA

Distribution Connection and Use of System Agreement

DNO

Distribution Network Operator

DTI

Department of Trade and Industry

G

GBSO

Great Britain System Operator

GBSQSS

Great Britain Security and Quality of Supply Standard

GCRP

Grid Code Review Panel

GW

Gigawatt

H

HV

High Voltage

HVDC

High Voltage Direct Current

I

IFA

Interconnexion France Angleterre

K

kV

Kilo Volt

L

LV

Low Voltage

M

MITS

Medium Interconnected Transmission System

MRA

Master Registration Agreement

MW

Megawatt

N

NGET

National Grid Electricity Transmission plc

O

Ofgem

Office of Gas and Electricity Markets

OFTO

Offshore Transmission Owner

OTETWG

Offshore Transmission Embedded Transmission Working Group

OTSCWG

Offshore Transmission Standard Conditions Working Group

R

RAV

Regulatory Asset Value

RES

Renewable Energy Strategy

RPI

Retail Price Index

S

SEA

Strategic Environmental Assessment

SHETL

Scottish Hydro Electric Transmission Ltd

SLC

Standard Licence Conditions

SPT

Scottish Power Transmission Ltd

SQSS

Security and Quality of Supply Standard

STC

System Operator - Transmission Owner Code

SYS

Seven Year Statement

T

TAR

Transmission Access Review

TCMF

Transmission Charging Methodologies Forum

TEC

Transmission Entry Capacity

TO

Transmission Owner

TOCA

Transmission Owner Construction Agreement

TnUoS

Transmission Network Use of System

U

UoS

Use of System

Appendix 12 - Feedback Questionnaire

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

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

1.2. Please send your comments to:

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