

Offshore Electricity Transmission: Further consultation on the Enduring Regulatory Regime

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Target audience: Offshore generation developers, Transmission Licensees, prospective Offshore Transmission Owners and all other stakeholders with an interest in Offshore Electricity Transmission.

Overview:

This document consults further on the enduring offshore transmission regime, building upon Ofgem's December 2009 consultation. It sets out further detail on the arrangements for OFTO built transmission assets and presents an additional "generator build" option to provide greater flexibility to offshore generators. The document also outlines the implementation challenges that we have identified in delivering this further option and considers how the competitive tendering regime can facilitate the development of a co-ordinated transmission system.

We welcome responses to this consultation by no later than 29 September. We would also welcome comments of a material nature by 9 September.

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Context

Electricity generated from offshore renewable energy sources is expected to make an important contribution towards the UK achieving its renewable energy targets by 2020. Fit for purpose offshore electricity transmission infrastructure is required to transfer the electricity generated offshore to the onshore network and ultimately to consumers. It is important that this infrastructure is developed in a timely, secure and cost-effective manner. It should also provide best value to present and future electricity consumers, while reflecting the requirements of generators and ensuring that, as far as possible, offshore infrastructure develops in a co-ordinated manner.

The Office of Gas and Electricity Markets (Ofgem¹) and the Department of Energy and Climate Change (DECC²) have developed a regulatory regime for offshore electricity transmission. A key part of the regime is that offshore electricity transmission licences will be granted following a competitive tender process run by Ofgem.

In June 2009, the previous Secretary of State for Energy and Climate Change commenced powers to enable modifications to be made to the industry codes and licences for the purposes of offshore transmission ("Go Active"). Under the enduring framework, put in place at that time, an Offshore Transmission Owner (OFTO) appointed by the competitive tender process would be responsible for the construction and ongoing operation of offshore transmission assets. This framework also extended National Grid's System Operator function offshore.

Following Go Active, Ofgem launched the first transitional tender round under the new regime and subsequently consulted on detailed aspects of the enduring framework. The first transitional tender round³ commenced on 22 July 2009. Following commencement of Go Live for the transitional regime in July 2010, Ofgem announced Preferred Bidders for seven of the first transitional projects⁴, with preferred bidders for the remaining two projects to be announced later. Ofgem estimates that the current tender round will deliver savings of £350 million for offshore wind farms and ultimately consumers.

¹ Note that, for ease, Ofgem is used to refer to Ofgem, Ofgem E-Serve and the Gas and Electricity Markets Authority in this consultation.

² And its predecessors, the Department for Trade and Industry and the Department of Business, Enterprise and Regulatory Reform.

³ Under the transitional arrangements developers are able to construct transmission assets which are then transferred to an OFTO appointed through Ofgem's tender process. The developer will transfer ownership of the completed transmission asset to a licensed OFTO at a price set by the Authority following an assessment of costs. Therefore, for transitional projects, the role of the OFTO is to finance, own and operate an asset that has been or will be constructed by the generator developer.

⁴ Ofgem's press release is available from the [Ofgem website](#).

Alongside the first transitional tender round, Ofgem has consulted further on the enduring regulatory framework. This included publication of an open letter on 5 November 2009⁵, a consultation document on 18 December 2009⁶ and a further open letter on the clarification of transmission losses on 26 January 2010⁷. The December consultation document outlined detailed proposals for the enduring regulatory regime consistent with the framework put in place by DECC and invited respondents' views.

Ofgem and DECC published a joint statement in July 2010⁸ which set out our intention to consult further on the enduring regime. This consultation now seeks views on allowing a "generator build" option to provide offshore generators with additional flexibility and considers the issues associated with implementation of this option. It also presents updated proposals in respect of the OFTO build options outlined in December 2009. In addition, this presents how the regime promotes co-ordinated development and seeks views on whether any further action is needed in this area.

Associated Documents

- [Providing additional flexibility in the enduring regulatory regime for offshore electricity transmission – Ofgem/DECC open letter](#)
- [Offshore Electricity Transmission: Open letter on draft Tender Regulations 2010](#)
- [Offshore Electricity Transmission: Open Letter on the Enduring Regime - Clarification of transmission losses](#)
- [Offshore Electricity Transmission: Consultation on the Enduring Regime, December 2009](#)
- [Offshore Electricity Transmission: An Open Letter on the Enduring Regime, November, 2009](#)
- [Offshore Electricity Transmission: Final Statement on the Competitive Tender Process, June 2009, Ofgem ref: 71/09](#)

N.B. Prior to the publications listed above, Ofgem and DECC consulted extensively on the regime. All documents relating to that consultation are available on the Ofgem website.

⁵ [Offshore Electricity Transmission: An Open Letter on the Enduring Regime](#)

⁶ [Offshore Electricity Transmission: Consultation on the Enduring Regime](#)

⁷ [Offshore Electricity Transmission: Open Letter on the Enduring Regime - Clarification of transmission losses](#)

⁸ [Providing additional flexibility in the enduring regulatory regime for offshore electricity transmission – Ofgem/DECC open letter](#)

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Summary

This consultation document follows a series of consultations by the Government and Ofgem to establish a regulatory framework for the enduring offshore electricity transmission regime. It follows the Ofgem consultation document, published in December 2009, entitled "Offshore Electricity Transmission Consultation on the Enduring Regime" and the subsequent joint Ofgem and DECC open letter "Providing additional flexibility in the enduring regulatory regime for offshore electricity transmission" published on 27 July 2010. This consultation gives:

- a further opportunity to comment on the framework for OFTO build, specifically the detail of the early and late appointment options;
- an opportunity to comment on proposals for allowing a generator build option within the enduring offshore transmission regime and the issues around the implementation of such an approach; and
- an opportunity to provide views on whether any further action is necessary to facilitate the development of a co-ordinated onshore and offshore network within the offshore transmission regulatory regime.

The regulatory framework envisages that competitive tenders are run by Ofgem to identify to whom an offshore transmission licence is to be granted.

OFTO Build Option

Under the OFTO build option the OFTO is responsible for the financing, construction, operation and maintenance of transmission assets. This approach provides flexibility to allow a generator to choose who assumes responsibility for pre construction activities, such as consenting. Where the generator assumes this responsibility, then the competitive tender will take place nearer the point of construction. This is termed the "late" OFTO appointment option. Where pre-construction work is to be done by the OFTO we term this the "early" appointment option.

This document presents, in Chapter 3, features common to both OFTO build options and then highlights the different issues in developing an 'early' OFTO appointment and then a 'late' OFTO appointment and how they might be addressed. We are seeking views on the development and implementation issues identified and approaches we have considered.

Generator Build Option

The generator build option enables the offshore generator to retain control over the delivery of its transmission assets before transferring them to an OFTO to operate and maintain them once completed. The generator build option has elements in common with existing transitional arrangements for projects already constructed, under construction or about to construct. However, the option would not be a simple

extension of the existing transitional arrangements. We are seeking views (in Chapter 4 of this document) on the issues we have identified that would need addressing and our considerations on how they might be resolved to deliver a robust generator build option.

Implementation of a Generator Build Option

Should we decide to develop a generator build option following this consultation, we have identified (in Chapter 5) a number of implementation issues which would need addressing to ensure that this option could be implemented. We have set out our proposals for addressing these issues and ensuring that any generator build option can be effectively implemented. We are seeking views on the issues we have identified and how they might best be addressed.

It is necessary that Ofgem continues to have the ability to run effective competitive tender processes (to grant OFTO licences) under any new generator build model. DECC and Ofgem are currently considering whether the appropriate mechanisms are in place to do so.

Facilitating co-ordinated offshore development

Ofgem and DECC consider that the proposals outlined in this consultation document promote co-ordination. We believe that the regime is sufficiently flexible to enable co-ordinated development of the transmission system as a whole, although would welcome feedback from stakeholders on whether more can be done. In chapter 6 we consider:

- What we mean by co-ordinated development
- How strategic investment can be delivered under the current regulatory framework. In particular:
 - The role of the NETSO in promoting co-ordinated development;
 - The incentives for generators to find co-ordinated outcomes; and
 - Options for promoting greater co-ordination and strategic network development.
- Whether it would be beneficial for the NETSO to be able to make the case for additional offshore transmission assets to supplement those triggered by a generator connection request, for example the triggering interconnection between zones.

1. Introduction

Chapter Summary

This chapter outlines the purpose of this consultation document. It sets out the scope of issues that we are now consulting on to finalise the enduring regime. It also provides relevant background and highlights some key recent developments.

Purpose of this document

1.1. Ofgem and DECC have worked together with industry over the past five years to develop a regulatory regime for offshore electricity transmission. The legal framework for the regime is now in place and Ofgem E-Serve, Ofgem's delivery arm, is currently working within that framework to appoint the first OFTOs. This consultation builds on previous decisions and as well as comments received from respondents through subsequent consultation to set out our proposals for further development of the enduring regulatory regime.

1.2. We continue to believe that competitive tenders for offshore transmission licences will ultimately deliver best value for consumers. Nonetheless, it is important the regulatory framework is flexible to the requirements of offshore users of the transmission system. As such, this consultation gives:

- a further opportunity to comment on the framework for OFTO build, specifically the detail of the early and late appointment options;
- an opportunity to comment on proposals for allowing a generator build option within the enduring offshore transmission regime and the issues around the implementation of such an approach; and
- an opportunity to provide views on whether any further action is necessary to facilitate the development of a co-ordinated onshore and offshore network within the offshore transmission regulatory regime.

Background

Commencement of the regime

1.3. In June 2009, following extensive consultation, the previous Secretary of State for Energy and Climate Change commenced powers to enable modifications to be made to relevant industry codes and licences for the purposes of offshore

transmission ("Go-Active"). This enabled Ofgem to begin the process of identifying Offshore Transmission Owners (OFTOs) through competitive arrangements under Tender Regulations⁹ approved by the previous Secretary of State. This framework also extended National Grid's System Operator function offshore, therefore extending the System Operator's role in supporting co-ordinated development of the transmission system, onshore and offshore.

1.4. On 23 July 2009, Ofgem commenced the first transitional tender round for 9 offshore wind projects, with transmission assets worth £1.1 billion being tendered. There has been strong competition in these tenders and Ofgem received ITT bids from five firms representing a significant investment appetite. On 5 August 2010 Ofgem announced that three preferred bidders (Balfour Beatty Capital Ltd, Macquarie Capital Group Ltd and Transmission Capital Partners) had been selected to own and operate the first £700 million worth of transmission links to seven offshore wind projects. Ofgem also announced forecast savings as a result of using a competitive tender process of around £350 million on the first £1.1 billion of assets. This demonstrates the strength of the offshore regime in attracting the investment needed, securing benefits for generators and consumers.

1.5. The Secretary of State has now commenced the remaining statutory provisions ("Go Live") for the transitional regime. The Government expects to fully commence the provisions of the Energy Act on an enduring basis following the conclusion of the consultation on the enduring regime.

1.6. The 2010 Tender Regulations were made on 22 July 2010 and came into effect on 29 July 2010. If projects do not meet the Qualifying Project Requirements by 31 March 2012, as set out by the Tender Regulations 2010, they will be subject to the enduring regime. We note that this also applies to those projects that qualify as transitional projects through the additional flexibility in the reasonable endeavours test provided by the Tender Regulations, but do not meet the requirements by the backstop date of 31 March 2012.

Previous consultation on the enduring regime

1.7. In December 2009 Ofgem set out its further thinking on the detailed aspects of the enduring regime for offshore electricity transmission set out by DECC at Go-Active. The consultation stressed the key principles of providing flexibility to offshore generators and facilitating the delivery of significant volumes of new generation capacity. The December consultation set out that a generator has some flexibility over when it could request a tender to appoint an OFTO (as long as it had met the

⁹ The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010 (Tender Regulations) facilitate the making of a determination on a competitive basis of the person to whom an offshore electricity transmission licence is to be granted.

qualifying project requirements and tender entry conditions). In particular, over whether to opt for:

- An early appointment, in which an OFTO is appointed with responsibility for all aspects of consenting, design, procurement, construction and ongoing operation of transmission assets;
- A late appointment, in which an OFTO is appointed for procurement, construction and ongoing operation of transmission assets;

1.8. Ofgem received 21 non confidential responses¹⁰ to the December consultation. The majority were from developers of generation projects. Responses were also received from parties active within the offshore transmission supply chain and from a potential OFTO.

1.9. Developers of offshore generation set out that the regime could increase risk for generators as they would have less control over the delivery of transmission assets. Most notably that a generator would have more at stake than an OFTO should delivery of the transmission infrastructure be delayed. Generators claimed that funders would levy a premium for this risk, which would increase costs to the generality of consumers. Moreover, in some instances the risk of non delivery may prevent projects from being developed. These respondents therefore proposed that generators be allowed to construct their offshore transmission assets on an enduring basis with those assets then being transferred to an OFTO (selected by a competitive tender) once completed.

1.10. We have previously noted that there is a strong incentive for timely delivery in place, as an OFTO would not receive its full revenue entitlement until construction was complete. We also note that the limited feedback from prospective OFTOs and new entrants to the UK offshore transmission supply chain has been broadly supportive of the proposals set out in the December consultation.

1.11. In response to these concerns, we published an Ofgem/DECC open letter, "Providing additional flexibility in the enduring regulatory regime for offshore electricity transmission" in July 2010. This letter set out our intention to consult on a generator build option, which would allow a generator to be responsible for all aspects of consenting, design, procurement and construction of offshore transmission infrastructure which would then be transferred to an OFTO appointed via a competitive tender run by Ofgem. This consultation presents the issues raised in the open letter in more detail.

¹⁰ All non-confidential responses are available on the [Ofgem website](#).

1.12. DECC has produced an impact assessment of the additional generator build option outlined in this document¹¹.

Structure of this Document

1.13. We have, as far as possible, structured the document according to the various options available to parties wishing to participate in the enduring regime. In each of the following chapters we outline the issue under consideration, discuss the options we have considered and, where appropriate, set out our policy position:

- Chapter 2 provides an overview of the enduring regulatory regime. It outlines the flexibility available to offshore generators and discusses common features of the various options.
- Chapter 3 sets out in greater detail the characteristic of OFTO built transmission assets.
- Chapter 4 considers how an option in which a generator constructs transmission assets could be structured.
- Chapter 5 considers the implementation challenges associated with delivering the generator build option.
- Chapter 6 considers how the regime can facilitate co-ordinated offshore investment and whether further action is required.

1.14. The document also contains a series of appendices:

- Appendix 1 summarises the questions raised throughout the document.
- Appendix 2 summarises the responses to the December 2009 consultation.
- Appendix 3 provides a glossary of terms.
- Appendix 4 outlines how to provide feedback on the consultation process.

Responding to this Document

1.15. We would welcome comments from respondents on all issues raised in this consultation, although particular issues on which we are seeking feedback are highlighted in the relevant chapters. We would also be happy to discuss the issues raised in the document with stakeholders and interested parties.

¹¹ This is available from the [DECC website](#).

1.16. Responses should be received no later than 29 September 2010, although we would welcome responses of a material nature by no later than 9 September. We are also inviting early responses to the issues raised in chapter 5 and request that responses to these questions are also provided by 9 September. Due to the tight timescales involved, we will not be accepting late responses to the consultation. All responses should be sent to:

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1.17. We note that in the open letter, we set out that we intended to consult for a period of six weeks. The consultation is being published later than previous expected and we have therefore decided to reduce the consultation period by a week. We consider that this is appropriate given the joint statement published in July set out the high level issues for consultation. We hope that this has enabled stakeholders to engage on these issues. Following publication, we note that there has been considerable interest in the proposals and we have met several interest stakeholders to discuss the issues. We also note that the powers of the Secretary of State to make changes to the standard industry framework expire in December 2010. We therefore consider that reducing the consultation period by one week is justified to keep the process on a timeline to deliver in December 2010. We recognise the extra demands that reducing the consultation period to five weeks may place on stakeholders and would appreciate your co-operation.

Next Steps

1.18. Following consideration of responses, there would be a further implementation consultation to deal with changes to the standard industry framework should the Secretary of State decide to implement the generator build option. The table below sets out the high level timetable for the next steps for consultation on the enduring regime:

Consultation open:	26 August
Early response deadline:	9 September
Response deadline:	29 September

Standard Framework consultation opens:	Late October
Standard Framework consultation closes:	Late November
Decision document published:	Mid December
Secretary of State's Energy Act 2004 powers expire:	19 December

2. The enduring regulatory regime for offshore electricity transmission

Chapter Summary

This chapter provides a high level overview of our proposals for the enduring regulatory regime for offshore electricity transmission, which are discussed in more detail in the subsequent chapters of the document.

The objectives of the enduring regulatory regime

2.1. Ofgem and DECC note the important role of the enduring regulatory regime in facilitating the achievement of the UK's renewable energy targets, security of supply and in decarbonising the energy sector. As such, DECC and Ofgem have worked together over 5 years to design and implement the regulatory regime for offshore electricity transmission. We have consistently set out that the objectives of competitive tenders for offshore transmission licences are to:

- deliver fit for purpose transmission infrastructure to facilitate the connection of offshore generation and facilitate the realisation of significant carbon savings;
- provide certainty and best value to consumers through the competitive process; and
- attract new entrants to the sector.

2.2. We have also sought to ensure that the regime should facilitate generator choice in respect of the division of responsibility for the delivery of high voltage assets that can form a secure and compliant offshore transmission system and promote the development of integrated, innovative network solutions.

2.3. Within the context of these high-level objectives, there are a number of key principles within the current framework that we consider are necessary in all cases to ensure the development of offshore transmission networks as part of the integrated National Electricity Transmission System (NETS). These include:

- Timely application by the generator to the National Electricity Transmission System Operator (NETSO) for connection to and use of the NETS;
- Extensions to the NETS to provide offshore generator connections are required to comply with the minimum security standards set out in the Security and Quality of Supply Standards (SQSS);
- Extensions to the NETS to provide offshore generator connections are required to comply with minimum technical, design and operational criteria and performance

requirements defined for transmission system infrastructure in the Grid Code and System Operator-Transmission Owner Code (STC);

- The compliance of transmission owners with ownership unbundling requirements of the Third Energy Package;
- Requirements to cooperate and assist transmission licensees in the development of co-ordinated transmission investment plans (when developing extensions to the NETS to provide offshore generator connections)
- Requirements to share with the NETSO detailed design information to populate agreements and systems used when operating the NETS (when developing extensions to the NETS to provide offshore generator connections); and
- Requirements to share information to enable the development of transmission investment plans (when developing extensions to the NETS to provide offshore generator connections).

2.4. The options discussed in this document have been developed in light of these objectives and principles.

Overview of the enduring regulatory regime

2.5. The enduring regulatory regime set out by DECC at Go-Active seeks to provide flexibility for generators in when an OFTO will be appointed. It already provides some choice in the activities that offshore generators can undertake in developing the offshore transmission system and those activities undertaken by the OFTO. In all cases, we set out that an OFTO would be responsible for procurement, construction and operation of the transmission system.

2.6. The framework which has been developed by Ofgem and DECC will, irrespective of the point at which an OFTO is appointed, involve a series of common features. These common features are:

- **Initial interactions** - we would expect there to be early dialogue between the generator, NETSO, potential OFTOs and the supply chain. This would inform choices about the connection application and the likely choices that can be made.
- **Connection application** - an offshore generator will initiate the process of developing offshore infrastructure by applying to the NETSO for connection to and use of the NETS (in accordance with the Connection and Use of System Code (CUSC) application process). The connection application would include the generator's required level of capacity and timing.
- **Receiving (and signing) an initial offer** - the NETSO will then make an initial stage connection offer to the offshore generator (within three months of the application) based on the necessary onshore works and a series of assumptions about the offshore works which are required to deliver the connection. The

offshore generator then has a period of three months within which to accept the agreement offered by NETSO.

- **Commencing the tender process** – The competitive tender process requires that the offshore generator submit a formal request that a tender is commenced for its project. Ofgem will then assess whether the project has met the Qualifying Project Requirements and then set out the Tender Entry Conditions that the developer must satisfy. Once the tender entry conditions have been met, Ofgem will commence the tender. We expect to use annual tender windows to help to support opportunities for economies of scale and to minimise administration costs for Ofgem and bidders.
- **The tender process** - this involves a series of stages in which the Authority invites and assesses bids from parties wishing to become a licensed OFTO.
- **Tender evaluation** - in which Ofgem will assess bids with the aim of determining the party to whom the offshore transmission licence is to be granted. Ofgem will seek input from external advisers, relevant technical experts and, where appropriate, the NETSO.
- **The second stage connection offer** - in which the Preferred Bidder offers terms to the NETSO and a construction offer for the offshore transmission system is developed in accordance with processes set out in the STC. The NETSO will reflect the terms of the construction agreement developed by the Preferred Bidder in an agreement to vary the connection offer that the NETSO offers to the generator. The generator faces a decision about whether to accept the offer.
- **The asset transfer process** - this facilitates the transfer of any assets (we note that there may be no assets under an early appointment) from a generator to an OFTO and the payment of the generator by the OFTO for the efficient costs of those assets as determined by the Authority.
- **Licence grant** - in which a licence is granted to the successful bidder (and is granted concurrent to the transfer of assets at financial close).
- **The concluding of contracts and delivery of assets** - in which the appointed OFTO will conclude contracts with the supply chain and deliver assets to the required specification and timescales.
- **The ongoing package of rights, obligations and incentives** - these are enforced via the conditions of the OFTO licence and determine the package of licence obligations and incentives (to maximise availability and provide incremental capacity) which an OFTO faces.

2.7. Underpinning all of these stages is a series of contractual arrangements, set out in industry codes and licences, which form the basis of relationships between market participants and provide the governance framework within which the OFTO, the NETSO and generators operate. These arrangements are, as far as practicable, common with onshore arrangements.

2.8. We would highlight that project specific licence conditions are determined by the Authority as part of each tender exercise, including any performance obligations. Ofgem will consult separately on the performance incentive regime later in the year ahead of the second transitional tender round. This consultation will consider refinements to the availability incentive within the framework already in place, potentially including certain parameters, such as the level of OFTO revenue at risk and the specific availability target. Any refinements to the incentive will not affect licences granted as part of the first transitional tender round.

Third EU Energy Package

2.9. We have made clear in previous consultations that the Offshore Transmission regime would need to be compatible with the requirements of the EU Third Energy Package (the Third Package). The unbundling provisions of the Third Package seek to achieve separation of transmission interests (ownership and operation of transmission systems) from generation and supply activities. As set out in the July Ofgem/DECC open letter, issues relating to the Third Package will be dealt with through different consultation processes. We note the following consultations:

- Ofgem's consultation on the certification of transmission system operators under the Third Package, published in July 2010¹², set out that Ofgem's initial view is that offshore electricity transmission systems are covered by the definition of "transmission system".
- DECC's consultation on the Implementation of the EU Third Internal Energy Package, published in July 2010¹³, confirmed that, once built and licensed, offshore transmission infrastructure will need to meet the unbundling requirements unless a derogation (or exemption) applies. We recognise that OFTOs will have to comply with these requirements.

2.10. The Third Package is discussed in the context of a generator build option in chapter 5.

Ofgem's December Proposals and July Joint Statement

2.11. In the December 2009 consultation Ofgem noted that, at the highest-level, a generator's decision about when to request that a tender process is initiated will determine the division of responsibility between a generator and an OFTO. This decision will lead to Ofgem holding a tender process to appoint an OFTO based on bids consistent with that scope.

¹² The consultation document is available from the [Ofgem website](#).

¹³ The consultation document is available from the [DECC website](#).

2.12. Ofgem also set out a range of options, consistent with the previous Government's decision on transitional and enduring arrangements, in respect of the time at which an OFTO could be appointed. This included a range of options between an early approach, in which an OFTO would be appointed to undertake all transmission activities, and a late appointment approach, in which a generator would undertake initial transmission pre-construction work before a tender process appointed an OFTO to let contracts, manage the construction programme and commence transmission services.

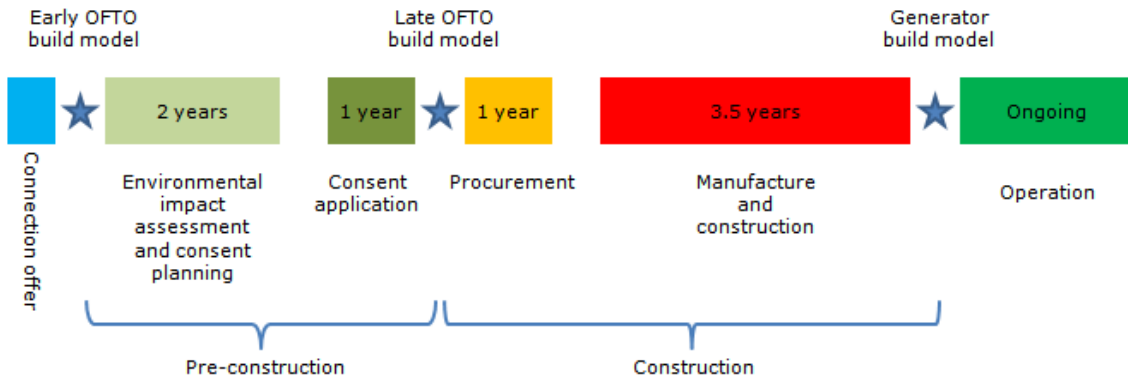
2.13. In responding to the consultation, generators raised concerns that the regime could increase risk for generators by limiting their control over the delivery of transmission assets. They also claimed that, at best, financiers of generation projects would respond to this perceived risk by levying a premium which could increase costs to consumers and, at worst that some offshore generation projects would not be go ahead due to uncertainties about the identity and capability of the OFTO.

2.14. Therefore, in Ofgem and DECC's subsequent joint statement, we outlined our intention to consult further on providing additional flexibility within the regulatory regime. We noted that this additional flexibility would provide generators with significant choice over the role for themselves relative to an OFTO (with regard to design and construction of transmission) and would allow the different preferences of projects to be reflected - leading to efficient overall outcomes. However, we also outlined the challenges that were likely to be involved in developing a generator build option and stressed the need for further consultation and engagement with industry stakeholders on these issues.

2.15. Some stakeholders also responded to the questions posed in the consultation document (see Appendix 2 for details). These comments have informed the development of the OFTO Build proposals which are set out in Chapter 3.

Alternative options

2.16. The diagram below shows our updated view on the range of options that should be available to an offshore generator. The key feature of these proposals is that the different preferences of offshore developers can be reflected and optimal decisions made. We note that under all options the generator is likely to interact with industry to inform decisions about the connection applications and the likely choices that can be made. However, a consistent set of principles and processes should, as far as possible, apply to all approaches.



2.17. The diagram¹⁴ shows that:

- The widest scope of activities for an OFTO would occur if they were appointed following initial scoping work by the generator (which avoids a duplication of effort and cost) and were responsible for all aspects of pre-construction, consenting, procurement, construction and operation of transmission assets. For ease, we term this an early appointment.
- A late appointment would appoint an OFTO to deliver the procurement of the transmission assets and construction phases of the build programme, after a generator had obtained the necessary consents for the transmission works. This is best thought of as reflecting a traditional Private Finance Initiative (PFI) approach.
- We are also proposing that a generator should be able to opt for a generator build option, in which a generator would design and construct (in accordance with a series of common standards) transmission assets with a transfer of ownership to an OFTO (appointed via competitive tender) taking place after the generator had completed construction.

2.18. We note that even where the developer retains responsibility for certain activities, we believe that there will be opportunities for parties to undertake activities on the behalf of developers. Equally, there is the opportunity for developer to undertake activities on the behalf of an OFTO where an activity is an OFTO responsibility.

¹⁴ The timescales shown in the document are based on published data and certain aggregated project specific information and therefore should not be viewed as representative of average timelines.

2.19. We note that some parties may view the arrangements that were put in place for transitional projects as a generator build option. However, these arrangements were put in place specifically to facilitate the transfer of generator built high voltage offshore connections that were designed (and in some cases constructed), before the offshore transmission regime was put in place. Given the timings, the design work carried out by the offshore generators was largely undertaken before the applicable standards and performance requirements for offshore transmission systems were defined. Therefore alongside the transitional project tender process, Ofgem has needed to deal with requests for derogations in respect of compliance issues. The transitional arrangements are time limited (as defined in Schedule 2A Electricity Act 1989¹⁵) and were designed to address the specific circumstances faced by projects that were already under construction and were too far advanced to be considered under the enduring arrangements. We do not consider that extension of the current transitional project approach would be a sustainable generator build option as part of the enduring regime.

2.20. It is essential that any generator build option delivers a secure and efficient electrical system, regardless of OFTO and generator build options, transmission assets should be required to meet the same technical and operating standards.

2.21. In our view, and as discussed in more detail in the later Chapters of this document, there would need to be changes to the standard framework to include a generator build option as part of the enduring regulatory regime for offshore electricity transmission.

¹⁵ Into which Schedule 2 to the Energy Act 2008 was inserted by section 44(2) of the Energy Act 2008

3. OFTO Build Options

Chapter Summary

This Chapter focuses on approaches which involve an OFTO constructing assets. We consider an early and a late model.

Question Summary

- Q3.1. Do you agree with the proposed scope of activities defined as pre-construction works?
- Q3.2. What are the appropriate mechanisms for ensuring that contingencies are managed efficiently?
- Q3.3. What are your views on allowing generators a role in informing the evaluation criteria for technical issues or enabling generators to comment on the technical sections of the bid submissions?
- Q3.4. What should be Ofgem's role in the transfer of property rights and consents to the OFTO?
- Q3.5. Should we extend OFTO of last resort arrangements to include failed OFTO build tenders (noting a generator could construct their own assets should the tender process fail to identify an OFTO under those appointment options), and if so should the obligations be extended to all transmission licensees?
- Q3.6. What are the appropriate mechanisms for ensuring that there is effective competition across the supply chain under OFTO build options?
- Q3.7. How feasible are fixed price bids under an early OFTO appointment tender process? Is a bid based on approaches to procurement and financing possible?
- Q3.8. To what extent can design innovation be realised under an early OFTO appointment approach, given the restraints imposed by the connection offer and technical codes and standards?
- Q3.9. What are your views on the proposal to align stages of the tender process to milestones within the planning process?
- Q3.10. Are changes to the standard framework required to deliver an effective late OFTO appointment approach?
- Q3.11. Which approach to engaging with the supply chain of the three suggested under a late OFTO appointment enables the greatest level of competition?
- Q3.12. Do the form and nature of arrangements for asset transfer under a late OFTO appointment need to differ substantively from an early OFTO appointment?

Introduction

3.1. This is the first of two Chapters which focuses on the issues associated with appointing OFTOs at various points within the project development programme. It considers approaches which appoint an OFTO to undertake the construction of transmission assets (and to operate and maintain those assets on an ongoing basis).

3.2. As noted in Chapter 2, the current framework, which is in force, facilitates different options:

- An early appointment, in which an OFTO is appointed with responsibility for all aspects of consenting, design, procurement, construction and ongoing operation of transmission assets.
- A late appointment, in which an OFTO is appointed for procurement, construction and ongoing operation of transmission assets.

3.3. This section discusses how we expect each of the above options would operate.

Common Features

3.4. Before setting out the specifics of each of these two options, we note that there are several features that will be common to both options.

Connection application

3.5. The generator's connection application would include the generator's required level of capacity, which provides the basis of the specification for the tender process.

Triggering the tender

3.6. A generator who wishes to trigger an OFTO build tender will need to comply with a series of Qualifying Project Requirements and Tender Entry Conditions. We had previously considered whether there was a case for merging these two sets of requirements. Having considered the issue further, and noting that no respondent to the December consultation commented on the issue, we do not consider that there is a case for change and note that the two sets of requirements serve separate purposes.

3.7. We consider that the Qualifying Project Requirements as currently drafted in the Tender Regulations 2010 are fit for purpose for an approach in which an OFTO is responsible for the construction of offshore transmission assets. However, we consider that changes to the Tender Entry Conditions may be required. At the very least, we consider that they may need to be amended to include the following:

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- The developer has entered into an undertaking to agree to provide a draft transfer agreement, based on guidance provided by Ofgem prior to licence grant.

Pre-construction

3.8. In previous consultations we have set out that we are minded to allow the recovery by developers of certain efficiently incurred pre-construction costs at or following the grant of a licence to a successful OFTO. The timing of OFTO appointment will impact on the pre-construction activities that a generator will undertake. There are consequently likely to be a range of cost items that would need to be considered as pre-construction costs.

3.9. In the interests of transparency and simplicity we consider that a pre-condition of tender entry conditions should be that the generator provides a draft transfer agreement based on guidance provided by Ofgem. We consider that the transfer agreement provides an appropriate vehicle through which to progress discussions over pre-construction works. Ofgem will assess the cost of such pre-construction works and set out our view on the economic and efficient value.

3.10. We consider that a relatively flexible approach to dealing with pre-construction costs is required. This reflects our proposal to try and provide flexibility to developers in the time at which they choose to trigger a tender process (and hence the point at which an OFTO is appointed). However, we are proposing to define the scope of pre-construction costs on a case-by-case basis. In addition, Ofgem will ensure that any such costs have been efficiently and economically incurred (as required by our statutory duties). We would welcome views on the items that should constitute pre-construction costs under both of the options discussed below (i.e. the early and late build options). We recognise that there are different interpretations of the scope of pre-construction items. We consider that pre-construction works could include and be limited to:

- Carrying out Environmental Impact Assessment and stakeholder consultation in relation to the OFTO works;
- Obtaining necessary planning permissions;
- Obtaining necessary landowner consents (leases, easements, wayleaves etc.);
- Carrying out engineering surveys (onshore and offshore) in relation to the OFTO works (these could include sea-bed geophysical and geo-technical surveys and metocean surveys);
- The high level engineering design needed prior to undertaking the activities described above; and
- Any economic analysis in support of this high level engineering design.

Q3.1. Do you agree with the proposed scope of activities defined as pre-construction works?

Contingencies

3.11. We recognise that in building assets, OFTOs will need to manage cost uncertainty and construction risk effectively. We note that it is standard practice in construction projects to build in contingency for a range of factors. However, such contingencies tend to be of a limited size. There is a balance between providing contingencies that may or may not be used, putting in place hedging instruments or assuming the uncovered risk. Striking the right balance should deliver better value to consumers. Accordingly, we will need to consider what is an appropriate contingency envelope, given the variety of options potentially open to the OFTO¹⁶.

3.12. While market based solutions may often be preferable to contingencies, contingencies may sometimes be the more efficient option and so deliver better value to network users. As an example, an offshore transmission project may have a landing point which will require a certain amount of cable undergrounding that is unknown at the time of the tender process. Potential OFTOs would be able to include a specific contingency amount in their bid to cater for this risk.

3.13. Where contingencies are allowed it is important that OFTOs face appropriate incentives to manage within them. This may include capping of contingencies, sharing mechanisms or rewards. Other approaches may include determining revenues on firm cost and undertaking an efficiency assessment on any use of contingency once projects are completed. Such an approach could also use cost capping.

3.14. The items below are those where there may be uncertainty to be managed and that we will need to decide whether contingency, hedges or assuming uncovered risk are appropriate mechanisms for risk to be borne. Items may include:

- ability to obtain consents and planning permissions (including land agreements, wayleaves, easements etc.);
- conditions attached to consents and planning permissions;
- ground conditions (to the extent the sea-bed surveys and other site surveys had not been undertaken);
- commodity prices, which feed into the prices of key items of offshore kit;
- exchange rate movements;

¹⁶ This section only considers contingencies available to the OFTO through the licensing regime. Such contingencies would only be available to the OFTO under the OFTO build model.

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- changes in the size of the grid connection required due to changes in the size of the offshore wind farm as it progresses through the development process; and
 - changes in connection date may cause the need for renegotiation of supply contracts put in place by the OFTO¹⁷.

3.15. Regardless of the mechanisms that are in place, contingencies will be determined on a case by case basis before the commencement of the tender. We recognise that including contingency mechanisms may have an effect on the evaluation process and will be considering how the level of contingency bid is best evaluated together with the revenue stream and other items of the bid.

Q3.2. What are the appropriate mechanisms for ensuring that contingencies are managed efficiently?

Effective tender process

3.16. The Authority determines the framework of the tender, extent of variants allowed and potentially approach on contingency. The framework needs to be robust to ensure that the competitive process is effective.

3.17. Evaluation will also take transmission losses into account. In any transmission system, some energy is lost in the process of transmission. Given the significant expected level of future offshore generation capacity, it will be important to take account of the level of losses in offshore transmission assets. We will not be undertaking a technical assessment of the losses attached to a particular design. Rather, the level of losses will need to be set out as part of a bid, based on costs over the full 20 year period. Losses will be considered alongside other elements of the bid, including operations and maintenance costs and capital expenditure.

3.18. The approach to evaluation will be set out ahead of each stage in the tender process.

3.19. Where the Authority considers that their assessment could be improved by engaging with the NETSO, they are able to request information and views from those parties (NETSO is required to provide this through Standard Licence Condition 25 of their transmission licence).

3.20. We are also considering whether to allow generators a further role in evaluations. This role would be limited to the generator directly affected by the

¹⁷ Scope of changes to connection date and connection size may be limited by constraints in contractual agreements between NETSO and offshore generator.

tender exercise. The areas we are considering are to allow the generator to comment on are:

- The technical aspects of any variant bids received - so as to inform Ofgem evaluation;
- The technical aspects of all bids received - so as to inform Ofgem evaluation; and/or
- Comment on technical evaluation criteria- in advance of tenders being run

3.21. However, the decision to select a Preferred Bidder and grant a licence to a Successful bidder is the Authority's alone.

Q3.3. What are your views on allowing generators a role in informing the evaluation criteria for technical issues or enabling generators to comment on the technical sections of the bid submissions?

Transfer of responsibility

3.22. Once a successful bidder has been selected, the process of transferring responsibility to that party needs to take place. We consider that there are two important issues here:

- The process which is used to facilitate the transfer; and
- The process to determine the efficiently incurred cost that we would allow an OFTO to recover under its licence as a consequence of any transfer agreement between the OFTO and the generator.

3.23. Experience from the first tender rounds suggests that there are strong arguments for developing a standard framework to facilitate the transfer for all projects. Over time, as in PFI, we would expect such agreements to become highly standardised and we consider that this would aid transparency and reduce administrative burden for all parties.

3.24. In general, we consider that generators should make information about any pre-construction costs which they have incurred available to bidders via the data room. We also consider that Ofgem has a role in assessing those costs and determining whether they have been efficiently incurred (and hence whether customers should pay them).

Q3.4. What should be Ofgem's role in the transfer of property rights and consents to the OFTO?

OFTO of last resort

3.25. Under Condition E21 (Offshore Transmission Owner of Last Resort) of the Offshore Transmission Licence and Condition B18 of the onshore TO licences, the

Authority is able to issue Directions to licensed parties requiring them to provide transmission services in certain circumstances. Directions can be provided where:

- A transitional tender exercise has been unable to determine a person to be granted an offshore transmission licence (following two tenders); or
- the Authority intends to revoke the transmission licence of an offshore transmission owner.

3.26. We are considering whether or not an OFTO of last resort arrangement is required under an OFTO build approach for a situation in which an enduring tender exercise has been unable to determine a party to be granted an offshore transmission licence. This may occur if bidders consider there is too much construction risk attached to the project or the timescales set for the project are deemed to be unrealistic. Putting an OFTO of last resort arrangement in place to mitigate the risk of an OFTO not being appointed can be viewed in two ways. From a developer's perspective it provides comfort that a party will always be appointed to provide transmission services to a project, which may reduce risk of delay.

3.27. Alternatively one can argue that, if a tender process does not lead to a party being granted an offshore transmission licence, this is a signal that the market considers the project to be overly risky and that it would consequently be inappropriate to commit consumer's money to that project (i.e. through the OFTO of Last Resort arrangements). It can also be argued that an OFTO of last resort may reduce effective competition by creating incentives for parties not to participate in the tender process (because they expect to be appointed as an OFTO of last resort on more favourable terms).

3.28. This consultation consults on the proposal to include a generator build option within the enduring regime. Such an approach could provide an alternative to the possible extension of the OFTO of Last Resort arrangements. In particular, where an OFTO build tender has failed to appoint an OFTO, then it might be desirable to allow the generator to construct the transmission assets itself, subsequently transferring the assets once constructed. This may have benefits in terms of preserving the benefits of the competitive process rather than relying on the OFTO of last resort process.

3.29. It is important that allowing such an approach does not create perverse incentives to distort the competitive process. We consider that it might be appropriate that the option of allowing generators to subsequently build assets is at Ofgem's discretion.

3.30. We recognise that extending OFTO of last resort arrangements to cover failed OFTO build enduring tenders may create additional obligations for existing transmission licensees. Therefore we are considering whether or not additional obligations should apply to all transmission licensees or just newly granted OFTO licences. We note that safeguards are included in the OFTO of last resort licence conditions. These are in place to ensure that an OFTO of last resort Direction cannot

be issued by the Authority should it materially constrain a TO's activities and obligations.

Q3.5. Should we extend OFTO of last resort arrangements to include failed OFTO build tenders (noting a generator could construct their own assets should the tender process fail to identify an OFTO under those appointment options), and if so should the obligations be extended to all transmission licensees?

Ensuring effective competition

3.31. As noted in previous consultations, we recognise that several parties have expressed concerns about supply chain exclusivity having an adverse impact on competition. That is, in the event of there being a greater number of prospective bidders than there are supply chain component providers, exclusive agreements between bidders and suppliers could constrain the number of bidders to the number of component suppliers.

Q3.6. What are the appropriate mechanisms for ensuring that there is effective competition across the supply chain under OFTO build options?

3.32. The above section outlined the common features of the OFTO build approaches. We now discuss different OFTO build options, with division of responsibility between OFTO and generator depending on the timing of OFTO appointment.

Early OFTO Appointment

3.33. An early OFTO appointment would involve the widest scope of activities for an OFTO as a tender process would appoint a party with responsibility for all aspects of consenting, design, procurement, construction and operation of transmission assets. The OFTO would be required to finance the development and construction of the project.

3.34. We note that respondents to Ofgem's December consultation, in some cases, raised concerns about the viability of the early OFTO build option. In particular, concerns were raised about the possible impact of an early need to identify a licensee through a competitive tender process on offshore generation project timescales and about the levels of risk that bidders would need to assume.

3.35. In this section we discuss how we would expect an early OFTO appointment to operate and request views on amendments or refinements which parties feel would improve the approach. We only focus on areas where we expect amendments to the existing framework, as summarised in the previous section, to be required or where we consider that alternative approaches may be available.

Tender stages and timescales

3.36. In December Ofgem noted that, due to the greater scope of activities being undertaken by an OFTO, the challenges and opportunities facing bidders under an enduring tender would be different to those facing parties under the transitional tender round. Ofgem therefore noted that there may be a need to extend tender timescales to ensure parties have sufficient time to develop submissions and that the Authority has sufficient time to evaluate submissions.

3.37. As such, Ofgem outlined an enduring tender process lasting 13 months, including an enhanced Pre-Qualification stage (PQ) (4 months) and an extended Invitation to Tender (ITT) stage (9 months). In the subsequent consultation on the Tender Regulations¹⁸, Ofgem set out that the timing and structure of each tender would be determined on a case by case basis. The Pre-Qualification (PQ) document for each tender would confirm the structure and timing of the process. Therefore there may be a case for an optional Qualification to Tender (QTT) stage and optional Best and Final Offer (BAFO) stage, depending on the circumstances of the project being tendered.

Industry codes and licences

3.38. Generators who opt for an early OFTO appointment would see their connection offer finalised via a two stage process and both the generator and the OFTO would be required to comply with standard contractual frameworks.

3.39. In respect of the connection offer, a generator would initially receive an offer which outlined the expected connection date and the onshore works which the connection was contingent on; and would be provided with the option to sign the offer, not sign the offer or to refer the offer for determination by the Authority. The second stage of the connection offer would need to be finalised once an OFTO was appointed. The original agreement would need to be amended to reflect the onshore works the OFTO would deliver once a successful bidder had been selected. Again, a generator would face a choice over whether to sign or refer the offer to vary its existing bilateral agreement at this stage.

The basis of bids

3.40. When considering whether to bid in response to an ITT, a prospective OFTO will need to take a view on various factors. These factors will, amongst other things, include:

- the risk associated with the generation and the transmission project;
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¹⁸ [Offshore Electricity Transmission: Open letter on draft Tender Regulations 2010](#)

- the price at which it will be able to procure equipment;
- the cost of raising finance to fund the equipment purchase and construction process; and
- the return the OFTO requires for undertaking these activities.

3.41. As the period between when the OFTO is appointed and when these activities take place increases, making these assessments with certainty is likely to become more difficult. Therefore, while one may wish to ask for fixed prices in all cases, it may not necessarily be practicable or may significantly increase the risk premium OFTOs require.

3.42. Therefore, we consider that there may be a significant challenge associated with an early OFTO appointment option in defining the basis on which parties will be asked to bid. As noted in the diagram in Chapter 2, the OFTO could be appointed up to three years before the point at which one would expect to let a procurement contract and 7.5 years before transmission assets are ready and an OFTO would begin receiving its 20 year revenue.

3.43. Recognising that the two most significant cost components of a bid are likely to be the cost of equipment and the costs of finance, it is questionable whether an OFTO would be able to submit a fixed bid which provided a realistic assessment of either of these costs. In an extreme case where a fixed price was bid, an OFTO would have to take on a very considerable amount of market risk which would be expected to lead to either disincentives to participate or very significant risk premia and high levels of contingency being included in bids. This approach would be expected to create challenges in evaluating bids, may discourage parties from participating in tender processes and may mean that the best outcome for customers does not result.

3.44. As such, for an early appointment to be feasible, it would appear appropriate for parties to bid either on the basis of indicative costs or on the basis of their approach to procuring equipment and accessing finance. For example, under an indicative cost approach a bidder could outline their anticipated price and, theoretically, also provide a series of indices or specify contingencies which would be used to index link that price to mitigate some of the market risk.

3.45. Alternatively, were it considered impractical to provide any form of price, other than for the pre-construction and consenting elements of the project (which account for a very low proportion of total cost) one could evaluate parties' proposed approaches to procuring and financing the asset. This might include ensuring that best procurement practice were adhered to and that the principles often used in funding competitions, which are an established feature of PFI contracts, were met. It may also require parties to bid the margin they required for undertaking these activities (i.e. the return they would need over the result of a funding competition). However, this approach would seem to create evaluation concerns and may reduce the benefits of competition.

Q3.7. How feasible are fixed price bids under an early OFTO appointment tender process? Is a bid based on approaches to procurement and financing possible?

The tender specification

3.46. Under an early appointment approach no detailed design work would have been undertaken by a generator and consents would not have been obtained at the point when a tender takes place. However, the NETSO would have done initial scoping work of required onshore and offshore works in generating a connection offer. This may include opportunities for co-ordinated development (which is discussed in chapter 6). Hence a bidder would be able to propose the detailed design solution which it considered was most appropriate (within any constraints imposed by the connection offer and consistent with required technical codes and standards)

3.47. The connection process will involve a generator specifying the level of capacity they wish to connect and the timescales for delivery. The offer from the NETSO to the generator will contain details of the anticipated connection point, timescales for the delivery of necessary onshore reinforcement and, where this involves co-ordination of infrastructure, the wider impact on projects. Hence bidders would be expected to submit bids which were consistent with this specification, which reflected standards imposed by the NETS SQSS and which provided levels of reliability consistent with the performance incentive framework.

Q3.8. To what extent can design innovation be realised under an early OFTO appointment approach, given the restraints imposed by the connection offer and technical codes and standards?

Key issues

3.48. The section above has sought to set out the steps involved in appointing an early OFTO to deliver all the requirements of a transmission project. We now provide a brief discussion of what we view as the potential benefits of the approach and also the challenges it may pose. We would welcome parties' views on these issues.

3.49. Under an early OFTO build approach, we note that:

- The approach provides greater scope for design innovation than alternatives as bidders, should they wish to do so, would be able to submit a bid which reflected their view of the most efficient connection solution, which may drive innovation in design as well as finance.
- The approach has much in common with the approach used successfully onshore (in that a specialist provider is responsible for the design and delivery of assets).

3.50. However, we also note the following potential concerns:

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- Appointing a party significantly in advance of the point at which contracts are let and a project is energised, may mean that submitting meaningful, financially firm bids is a challenge. It is difficult to see how firm prices could be provided (without highly significant contingency costs and risk premia being included). This creates evaluation difficulties, may reduce incentives to participate in the bidding process and asks generators to accept significant risks which they only have a limited ability to control.
 - Parties would need to bid at a point when there may not be certainty about whether an offshore generation project would be consented, which could reduce incentives to participate in tender processes, and raise issues around cost recovery and securities.
 - Separate consenting of generation and transmission assets by different parties may increase the risk of delay to the project.
 - Uncertainties in costs and timing mean that companies may not compete on a like for like basis which may reduce the benefits of competition.

3.51. We also note that not all parts of the enduring arrangements have yet been used in practice. We appreciate that the infancy of the market contributes to uncertainty. We also note that onshore experience suggests that there is no common view about the level of involvement that developers of generation projects choose to have with the development of network infrastructure needed to provide connection to and use of system.

3.52. As such, we consider that there are strong arguments for including the option as part of a flexible range of choices available to generators. However, we would welcome comments on whether parties consider that the additional flexibility provided by appointing a party to take responsibility for all transmission work is desirable and, if so, how the challenges identified above can be overcome.

Late OFTO appointment

3.53. As previously noted, the current framework contains sufficient flexibility to enable an offshore generator to carry out pre-construction works (including detailed design and securing consents for an offshore transmission system that is within the scope of Offshore Works Assumptions identified by the NETSO) before a tender to select an OFTO is triggered. We note that respondents to the December 2009 consultation document, which included a prospective OFTO and offshore generators, were generally supportive of this approach.

3.54. We now discuss the expected operation of a late OFTO appointment in more detail. Again we only focus on areas where policy issues remain or where we consider amendments to the existing framework may be required.

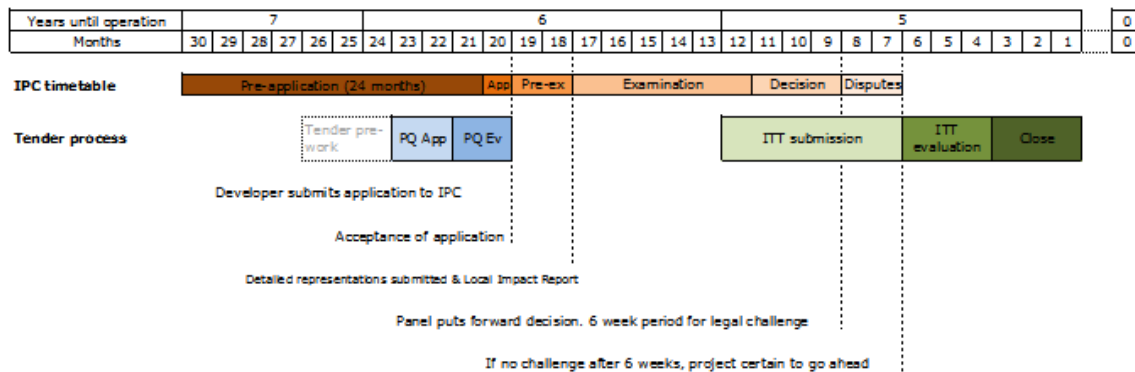
Tender stages and timings

3.55. A late appointment option needs to put an OFTO in place in order to commence construction and sign procurement contracts shortly after appointment, allowing them to meet the project timeline and specification. However, in order to minimise delays in projects, the tender process needs to be on the project development critical path for as short a time as practicable. In addition, and recognising that project development activities will be going on concurrent with the tender process, it needs to allow parties to submit bids when there is certainty that the project will go ahead (i.e. that it is consented). Finally, we note that there may be benefits in ensuring that timescales for multiple projects are consistent if this reduces the level of resource required by bidders. We consider that this is likely to require a series of trade-offs to be made.

3.56. We consider that the exact timings and stages of the tender process under a late option would be determined on a case by case basis and set out in the PQ document for that tender. However, it would appear beneficial if, as far as possible, consenting timescales, tender timescales and timings for delivering other elements of projects were aligned. We have therefore explored options, on which we would particularly welcome views, which seek to align stages of the tender process with milestones within the planning process. One possible approach, which is demonstrated using the statutory milestones within the current planning framework, is shown below.

3.57. The key features of the proposed approach are:

- The PQ stage occurs in annual tender windows which can be determined by the Authority.
- The remaining stages of tender processes are project specific and linked to milestones within the planning process at which certainty increases.
- In the example below, based on a 13 month tender process in which the optional QTT stage is not included, the ITT stage begins shortly before a decision on whether to consent a project is taken with substantive costs only being incurred after that decision. Final submissions do not occur until after the period for disputes to arise has expired.
- The period for ITT evaluation and financial close occur after this point though the intention is to keep the tender process on the critical path for the delivery of the project for as short a time as practicable.



3.58. The key difficulty in this approach is generating information on appropriate planning milestones. For it to work effectively it is likely that Ofgem and bidders would need to understand the process for taking a decision on whether to consent a project at a relatively early stage. The current planning regime for major infrastructure projects has introduced a fast-track examination and decision making process that provides greater certainty for investors. This includes a pre-application process, which includes a requirement for the developer to notify the IPC of the date of application. We have therefore considered whether it would be possible to modify the tender entry conditions to require the generator to enter an undertaking to provide information on the progress of the consenting process to Ofgem as well as the relevant planning authority.

3.59. We note that market participants have suggested a similar approach to that discussed above. This would involve a two stage ITT process, with an initial stage, which would take place at the start of the consenting process, being used to generate alternative connection designs which could inform the consent, before a second price based stage was run after consents were granted.

3.60. We recognise that this approach is more complex than running sequential tenders. However, we consider that it makes for a more focussed project specific approach and may reduce risk for bidders and generators since more significant bid costs are only incurred once there is certainty over consents.

Q3.9. What are your views on the proposal to align stages of the tender process to milestones within the planning process?

Industry codes and licences

3.61. The contractual arrangements within the standard framework were intended to facilitate the late OFTO appointment approach. However, we note that the scope of the approach is not defined explicitly in the standard framework. We consider that it could be beneficial to provide additional clarity within the standard framework and plan to develop change proposals.

Q3.10. Are changes to the standard framework required to deliver an effective late OFTO appointment approach?

3.62. While this framework is well established onshore and amendments to the standard framework were made to deliver transitional projects and to facilitate the expected operation of the enduring regime, challenges arise as a result of a party which is not a transmission licensee undertaking a role which is typically undertaken by a licensee (in this case pre-construction works). In order to ensure that parties comply with the necessary standards, provide sufficient information to the NETSO and to facilitate the sharing of that information, we consider that there may need to be amendments to the CUSC, STC and Grid Code. These issues, which are particularly relevant to a generator build approach, are discussed further in Chapter 5.

Tender specification

3.63. Under a late appointment approach there is less scope for variation in the tender specification than under the early OFTO appointment approach. The key requirement for bidders is to submit a bid which is compliant with detailed design parameters that have been defined by pre-construction works, including: the requirements of the planning consent issued to the generator; the generator's request for connection as contained in the connection offer (including timescales and levels of capacity); and the NETSO's response to that request.

3.64. We do not see an argument for allowing parties to submit variant bids where there is a substantial change in design that undermines the work by developer and potentially delays connection. This could include a proposed variant bid that invalidates consents. However, there may be other reasons for submitting variant bids. We consider that it would be appropriate for parties to submit a variant bid within the scope of the specification of the tender. We note that the benefits of this approach may be greater if the consenting system allows, and generators seek, flexibility in consents as this will increase the scope for innovation by bidders.

The basis of bids

3.65. Relative to an early OFTO appointment, a late OFTO appointment involves much reduced times between the point at which an OFTO is appointed and the point at which funds will be committed, as such we expect that it will be practical to ask bidders to submit firm prices.

3.66. For an effective tender process it is important that there are a sufficient number of bidders participating for competitive forces to take effect. In this regard it is important that barriers to entry are not unduly onerous for bidders. It is also essential that the supply chain is engaged in the best way; to facilitate an effective competition. In this regard, respondents to previous consultations have raised concerns about the risk of exclusive supply arrangements constraining the competitiveness of the tender process. We have considered these concerns and

believe that they may be relevant to the basis of the bid that we require of potential OFTOs.

3.67. We consider that there are three possible approaches to the basis of the bid:

- **Firm price at ITT based on negotiated equipment prices** – Prior to bidding at the ITT stage, each bidder could approach equipment suppliers to negotiate prices for the equipment required to deliver their connection design during the tender process. The successful bidder would then conclude the negotiated contract on their appointment as an OFTO. This approach has most in common with the approach often used under the PFI and other approaches, including long term equipment supply contracts (such as high speed rail) where it is common for manufacturers to support individual consortia during the final tender stage. However, given the costs involved it may be unlikely that equipment manufacturers would be willing or able to engage with a number of bidders (because the time and cost involved in assessing a detailed connection design is too great). This may lead to a situation with each equipment supplier partnering a single bidder. We note that such a situation would raise similar concerns to those highlighted in regard to exclusivity agreements. This would be a particular concern for competition where the equipment supply market is relatively constrained (as it currently is) as there would be relative few parties competing.
- **Firm price at ITT based on indicative equipment prices** - An alternative approach would be to have an OFTO appointed ahead of the detailed negotiation of equipment contracts. Firm bids at the ITT stage would be based on indicative equipment prices - which would be confirmed between the OFTO and the supply chain following the appointment of the Preferred Bidder. This approach may increase the opportunity for the Preferred Bidder to negotiate with the equipment suppliers to provide the best value contract for the project. It would also allow equipment manufacturers to offer their list prices to a range of bidders, rather than having to commit to a sole bidder because of associated costs. We also note that this approach may mitigate concerns about exclusive agreements between bidders and suppliers constraining the number of bidders to the number of component suppliers.
- **Firm price at ITT based on heads of terms offering by equipment manufacturers** – A final approach would be to allow the major equipment manufactures to offer head of terms to all participants in the tender process. This would allow multiple parties to compete in the tender process and would minimise costs for the supply chain.

3.68. We want to establish an approach that enables the greatest level of competition and provides best value to consumers and generators. This is a finely balanced issue, particularly given the current depth of the supply market. We would welcome views on the approaches set out above.

Q3.11. Which approach to engaging with the supply chain of the three suggested under a late OFTO appointment enables the greatest level of competition?

Asset transfer

3.69. Our proposed approach to transferring responsibility from a generator to an OFTO is substantively similar to that outlined for an early appointment approach. The generator would produce a transfer agreement based on Ofgem guidance and provide information on costs incurred. Ofgem would assess the costs to set out its view on the economic and efficient level of costs that ought to have been incurred.

3.70. Because a late appointment involves a greater role for generators, the case for arrangements which clearly specify how different costs should be treated, to avoid the chance of generation and transmission costs being accounted for differently between different projects, may be greater.

Q3.12. Do the form and nature of arrangements for asset transfer under a late OFTO appointment need to differ substantively from an early OFTO appointment?

Key issues

3.71. In the section above we discussed the operation of a late OFTO appointment. We now briefly consider what we see as the benefits of the approach and the questions it raises.

3.72. Under a late OFTO appointment there would be different roles for generators and OFTOs. We would expect that an offshore generator which opted for a late OFTO option would address risks associated with offshore transmission system development as part of the pre-construction works, which could reduce the risk they face during the tender process. We also note that the greater certainty which would be available during the later stages of project development could increase the scope for fixed price bids to be submitted as part of the tender process.

3.73. We consider that a late OFTO appointment may provide the following benefits:

- The consenting of generation and transmission assets) can be undertaken together and OFTOs are not exposed to planning risk.
- The later point at which a bid is submitted requires bidders to assume less market risk and provides greater scope for fixed price bids.
- The proposed approach to holding tenders includes both common and project specific elements which allows bids to be submitted when uncertainty over consenting has been resolved.

3.74. However, the approach could be argued to provide relatively little scope for system design innovation (which is an objective of the regime). Nevertheless, we consider that the approach can provide substantial benefits through innovation in financing and delivery.

4. A Generator Build Option

Chapter Summary

This chapter discusses how a generator build option might operate and discusses the policy issues and implementation challenges it is likely to raise.

Question Summary

- Q4.1. Should a generator build option be included in the enduring regime?
- Q4.2. Are changes needed to the connection application process to reflect the different scope of information available at each stage for NETSO offers under a generator build option?
- Q4.3. Do you agree with our initial assessment of required amendments to the standard industry framework? Have you identified further areas that may require amendments?
- Q4.4. Do you agree that there is now sufficient understanding of the offshore transmission market and arrangements for cost assessments to remove the need for an ex-ante cost guarantee?
- Q4.5. Do you think that action is required to ensure fair and timely asset transfer from the generator to the OFTO, given that the property transfer scheme only applies to transitional projects?
- Q4.6. Are OFTO of last resort arrangements required under the generator build approach and if so, should the obligations be extended to all transmission licensees?
- Q4.7. What are the appropriate mechanisms for ensuring that generators ringfence transmission costs from generation costs when competitively procuring under a generator build approach?

N.B. Further questions on the implementation of a generator build option can be found in chapter 5.

Introduction

4.1. In light of responses to Ofgem's December consultation, we published a joint statement that set out that we were planning to consult on a generator build model in the enduring regime.

4.2. A generator build option would see a generator taking responsibility for all aspects of design, procurement and construction of transmission infrastructure with a tender process determining the price at which the asset transfers to an OFTO which will operate the asset on an ongoing basis. A generator build option is not currently available under the enduring offshore transmission regulatory regime and its inclusion would raise significant development and implementation issues.

Q4.1. Should a generator build approach be included in the enduring regime?

4.3. We have considered options for extending the range of choices available to offshore generators that are seeking an offshore connection to the NETS and we have consequently developed proposals for a generator build option.

4.4. Our proposal has been informed by responses to Ofgem's December 2009 consultation, experience from transitional projects and the minimum requirements for offshore transmission system design (including applicable design standards and information sharing obligations to promote co-ordinated development of the NETS) that are defined within the current standard framework. As such, the proposed generator build option for the enduring arrangements has some similarities with the transitional arrangements which are in place to facilitate the connection of existing projects in advance of the finalisation of the enduring regulatory regime. However there are important differences that we consider are necessary to address to enable the design and implementation of a robust generator build option.

4.5. This Chapter outlines these proposals and considers the issues we have identified in developing a potential generator build option. Implementation issues are discussed in more detail in the next Chapter.

Tender Entry Criteria and Qualifying Project Requirements

4.6. We would expect the Tender Entry Criteria and Qualifying Project requirements which are in place for transitional projects to remain in a substantively similar form for a generator build option. Any changes would require amendments to be made to the current Tender Regulations.

Triggering the tender

4.7. Under a generator build option a tender would be triggered via a notification to Ofgem that a generator wished its project to be included in the next tender window, subject to satisfying the qualification and entry requirements under the Tender Regulations. We note that it would be incumbent on the generator to ensure it made its application in timescales which allowed a tender to be run and an OFTO appointed in consistent with the timely delivery of the transmission infrastructure and its contracted connection date.

The connection offer and asset design

4.8. The NETSO would make an offer to the generator to vary its connection agreement (second stage connection offer). At each offer stage, the generator needs to decide whether to:

- Accept the terms offered and enter into an agreement;
- Reject the terms offered; or

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- Dispute the terms offered by referring the offer to the Authority for determination.

4.9. We have considered the appropriateness of the two stage connection application process to the generator build model. Our initial view is that the process steps remain necessary to ensure appropriate contractual interfaces are put in place. However, we note that the scope of the offer needed at each stage will be substantially different for the generator build model compared to an OFTO build model. For example, the generator would be expected to provide the NETSO with relevant information about the offshore connection assets that may be available at the initial offer stage.

4.10. We note that it is likely that in the future circumstances could arise in which the NETSO identifies that the most efficient way of facilitating the connection of two projects, both of which wish to self build assets, is via a joint connection solution. In this case we would expect parties to reach a contractual agreement which allowed the overall solution to be delivered in accordance with the NETSO's planning assumption requirements.

Q4.2. Are changes needed to the connection application process to reflect the different scope of information available at each stage for NETSO offers under a generator build option?

Tender Stages and Timings

4.11. We would expect that the tender process under a generator build option would not be significantly different to the transitional tender process.

Contractual arrangements

4.12. Contractual arrangements for offshore generators, the NETSO and OFTOs are underpinned by a standard framework made up of licences and industry codes.

4.13. For transitional projects, the generator build of high voltage assets was addressed through project specific bilateral agreements. Although these bilateral agreements were based on standardised arrangements, they were not explicitly defined within the standard framework. This arrangement was considered acceptable as there were a limited number of qualifying projects and the arrangement was only applicable on a time limited basis. However, we consider that, on an enduring basis, a standardised approach that defines compliance and other information sharing requirements for offshore infrastructure would be required to ensure the security and stability of the network.

4.14. The standard framework defines roles and responsibilities for:

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- Generators in respect of generating station performance requirements and arrangements for connection to and use of the NETS (Generation licence, CUSC and Grid Code);
 - OFTOs in respect of offshore transmission system performance and design requirements (transmission licence, NETS SQSS and STC), and
 - NETSO in respect of operation and design of the NETS and arrangements for connection to and use of the NETS (transmission licence, STC, NETS SQSS, CUSC and Grid Code).

4.15. Without changes to the standard framework, there is not a default mechanism to require offshore generators to design and build offshore transmission assets that meet the minimum standard of offshore transmission system performance and design. The lack of default arrangements would be likely to result in non-compliant offshore infrastructure that may not be efficiently operable by the NETSO and whose development the NETSO is unable to co-ordinate. It is generally accepted that standard aspects of contractual arrangements between the NETSO and its customers should be available in public documents.

4.16. Were this situation allowed to occur transmission assets built by generators would not necessarily be compliant with technical rules and may be unable to connect (without derogation from Ofgem). We consider that needs to be addressed under a generator build model to ensure that costs and risks to consumers and do not increase due to the development of offshore transmission assets that are not compliant with technical rules.

4.17. Assets may also be less attractive to potential bidders (as there would be a risk that they would need to be made compliant), which could reduce competitive pressure during tender processes; and there could be additional operating risks to the NETSO.

4.18. We therefore expect to work with market participants and code owners to develop appropriate contractual arrangements. The principle is that the same requirements and obligations should apply under a generator build approach as under an OFTO build approach. Our initial view is that amendments to the CUSC, STC and Grid Code may be required, as discussed further below.

- In respect of the CUSC, we consider that amendments may be required to ensure that an offshore generator must design offshore transmission infrastructure that meets the minimum design standards. Changes may also be needed to ensure that offshore generators share information with the NETSO when designing assets and consent to it being shared with other TOs for investment planning purposes and potentially with bidders during the tender process. There may additionally need to be amendments to define arrangements for sharing of "as built" information and testing information (to demonstrate compliance).
- We consider that elements of the STC may need to be amended to reflect the possibility that an offshore generator may have responsibility for the design and build of an offshore transmission network and to ensure that the NETSO is able to

share information from the offshore generator about the offshore transmission system (to fulfil its STC obligations in respect of sharing information) with other transmission owners (including the Preferred Bidder when selected). There may also be a need for changes to the detailed STC Procedures that support the STC obligations.

- We consider that changes to the Grid Code's Connection Conditions, Planning Code, Data Registration Code, Operating Code 11 and Planning Code may be needed to add obligations for generators that are designing and building offshore transmission infrastructure. Changes could include requirements on generators to ensure that offshore transmission systems developed under the generator build approach comply with the SQSS and other STC requirements. The Grid Code would also need to set out the detailed information that the NETSO requires from the offshore generator during the design, build and testing phases of the project.

Q4.3. Do you agree with our initial assessment of required amendments to the standard industry framework? Have you identified further areas that may require amendments?

The basis of bids

4.19. Under a generator build option a prospective OFTO would bid to acquire an asset which they would operate and maintain over an initial 20 year period. In common with the existing transitional tender process, we consider that bidders should submit a fixed tender revenue stream based on the ex-ante cost assessment and their costs of operating and maintaining the asset over 20 years.

Tender Specification

4.20. Because a generator has designed and constructed an asset, there is no scope for design innovation (other than that realised from the generator's expected incentive to seek the option which delivers it best value) and no need for variant bids. The tender specification would be based on the details of the constructed asset, which would be made available via the data room.

Evaluating Bids

4.21. The method of evaluating bids would involve only relatively small refinements to that used during the first transitional tender rounds. As under the transitional round, the Authority will evaluate bids based on bidders responses against a number of detailed criteria, including their required annual revenue and their managerial, technical and legal capability. Generators would be able to comment on technical aspects of all bids received to inform Ofgem evaluation.

Transferring responsibility

4.22. There are a number of issues around the transfer of responsibility which are discussed below.

Facilitating asset transfer

4.23. We would expect this process for facilitating asset transfer to continue to take place in a substantively similar form to that used under the transitional arrangements. There would be a need to consider how to ensure assets were transferred in an effective, fair and timely manner.

4.24. Given a generator would be undertaking construction work for generation and transmission assets, it is likely that detailed consideration will need to be given to cost allocation issues. We consider that it is important that generation and transmission costs are accounted for consistently across projects and that there are clear rules for identifying which costs fall into each category. A failure to do so might be expected to lead to generation costs being inefficiently or inappropriately labelled as transmission costs and vice versa. We will therefore give consideration to these issues in the context of regulatory reporting requirements and how we would undertake cost assessments in relation to a generator build option.

Ex-ante and ex-post cost assessments

4.25. A further important area is the process for transferring ownership of the transmission asset from the generator to an OFTO and, in particular, the transfer value of the assets. This includes considering whether, and if so how, ex-ante and ex-post cost assessments take place and whether any comfort around the recovery of capital costs is provided to generators.

4.26. Under the current transitional arrangements, Ofgem undertakes a cost assessment for each offshore project prior to the transitional tender round to establish the initial value of the assets. This ex-ante value essentially forms the "guide price" for the competitive tendering process. It then undertakes an ex-post assessment after completion to determine the efficiently and economically incurred cost of the assets.

4.27. In order to provide comfort to generators and funders, under the transitional arrangements parties were provided with a guarantee that they would be able to recover the higher of 75% of the ex-ante cost assessment or 100 percent of the efficiently incurred ex-post cost from the OFTO, as set out by the ex-post assessment. This approach was designed to achieve an appropriate balance of incentives and risks - the key incentive for the developer being that efficiently incurred costs would be remunerated and the key risk that inefficient expenditure (in excess of 75% of Ofgem's ex-ante estimate) would not be guaranteed to be remunerated. Where there were differences between the ex-post and ex-ante assessments, it was expected that the OFTO's revenue stream would be adjusted accordingly following licence grant.

4.28. We continue to consider that an ex-ante and an ex-post assessment are required, though do not consider there to be a case for guaranteeing that a certain level of costs can be recovered. The decision to guarantee that a minimum level of costs could be recovered reflected the relatively immature state of the market and the need to provide investors and financiers with comfort. However, this approach required consumers to assume some risk. Given there is now a greater understanding of the offshore transmission market and that generators know ahead of incurring costs the arrangements for assessing costs, we consider that the strength of the arguments in favour of providing comfort have diminished. We therefore propose not to extend this arrangement to a generator build option. This would mean that, as onshore, only efficiently and economically incurred costs as assessed by Ofgem would be recoverable.

4.29. We also note that a generator has strong incentives to make information about the costs of the asset available as this is likely to lead to more competitive bids and, in due course, lower transmission charges. We consider that, in the long run, as more information is available and benchmarking of the costs of offshore transmission assets becomes more feasible, there is a case for the generator to provide information on cost which would form the basis of the bid. Therefore, in the longer term, the requirement for Ofgem to undertake the ex-ante cost assessment may fall away. In such an event, Ofgem would reserve the right to carry out an ex-ante cost assessment should the information provided by generators be deemed insufficient. However, in the short term, Ofgem will continue to be responsible for ex-ante cost assessments and keep this policy under review.

4.30. We note that in any case Ofgem would still be responsible for undertaking the ex-post cost assessments and is able to disallow any inefficiently incurred costs.

Q4.4. Do you agree that there is now sufficient understanding of the offshore transmission market and arrangements for cost assessments to remove the need for an ex-ante cost guarantee?

Transfer of assets to the OFTO

4.31. A significant issue for consideration is whether action is needed under the generator build option to ensure effective, timely and fair transfer of transmission assets from the generator to the successful bidder.

4.32. Under the transitional arrangements there are time-limited powers, under Schedule 2A of the Electricity Act 1989, to enable the Authority, once a successful bidder has been identified, to make a property transfer scheme if required in order to ensure that the property is transferred from the asset owner to the successful bidder in a fair, timely and effective manner. The Electricity Act 1989 states the following:

- No application may be made for a property scheme after the end of the transitional period.

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- Subject to sub-paragraph (3), “the transitional period” means the period of 4 years beginning with the day on which section 92 of the Electricity Act comes into force.
 - Before the end of the transitional period, the Secretary of State may, by order and following consultation, extend that period by a period specified in the order.
 - An order under sub-paragraph (3) may relate to a particular case, or to cases of a particular description, only.
 - The total transitional period, and therefore availability of a Property Transfer Scheme, in any case must not exceed 7 years (up to 2016).

4.33. We expect it would be in the relevant parties' interest, under the generator build option, to reach a commercial agreement as to the terms of the transfer - a generator would wish to avoid being stranded and a successful bidder would want its revenue stream to commence. However, the transfer scheme was put in place, as a last resort measure, to give generators and successful bidders an avenue for expediting the transfer of assets where commercial agreement could not be reached. It was designed to provide certainty and reassurance to tender participants for transitional projects that the transfer of assets can be achieved. This included helping to ensure that generators and successful bidders were not placed under undue pressure by a third party seeking unreasonable commercial advantage.

4.34. Therefore, recognising that the property transfer scheme only applies to transitional projects and is time-limited, we need to consider whether action is required to ensure that assets can be transferred from generator to successful bidder under the generator build option. We have identified the following risks of not having arrangements to ensure the efficient and timely transfer of assets under the generator build option:

- Generators becoming involved in disputes over pricing with OFTOs and third parties prior to transfer of assets. Should such disputes arise and not be resolved generators may be at risk of having their assets stranded. This would be a significant risk to generator's funders and may increase renewable generation costs;
- Generators being held to ransom by third parties who may refuse to transfer assets to the OFTO on reasonable terms (knowing that the generator faces stranding risk); and
- Failure to achieve a timely and fair transfer could be reflected in the premium which is added to bids or result in higher costs of financing for the OFTO.

4.35. We also note that the risk identified to OFTOs and generators (above) are likely to increase risk premiums, and therefore prices, which would have a consequential impact on consumers through higher prices.

4.36. Options for implementation of any such arrangements are discussed in chapter 5.

Q4.5. Do you think that action is required to ensure fair and timely asset transfer from the generator to the OFTO, given that the property transfer scheme only applies to transitional projects?

OFTO of Last Resort

4.37. Paragraph 3.25 sets out the circumstances under which an OFTO of last resort might be appointed under existing provisions. There may be a need for similar arrangements relating to failed tenders under the generator build option to provide comfort to generators that an OFTO will be appointed in these circumstances. We recognise that a generator build option and transitional arrangements are similar in terms of timescales and the need for such a mechanism to mitigate the risk of stranded generation assets. However, as set out in paragraph 3.30, we need to be mindful of the wider and unexpected obligations this would place on transmission licensees. Implementation of any such arrangements is discussed in Chapter 5.

Q4.6. Are OFTO of last resort arrangements required under the generator build approach and if so, should the obligations be extended to all transmission licensees?

Competition issues

4.38. An important objective of the regulatory regime is to create effective competition in the provision of transmission services and in the supply chain which would serve the offshore market. There are a number of areas where a generator build approach may create competition concerns.

4.39. A generator procuring generation and transmission works together may be more likely to appoint a single provider which could, potentially, have a number of undesirable consequences:

- **Costs to customers** – while a generator would be expected to sign contracts which provided the least cost in the round, it may not, necessarily, minimise transmission costs. It could be argued that more transparent contracting and more effective competition could lead to reductions in costs to customers.
- **Development of supply chain competition** – exclusive contracting could also constrain the development of vigorous supply chain competition (which may increase costs to future consumers). If opportunities for new entry are not transparent, because of a perception that exclusive relationships exist, it may be less likely that new entrants will seek to participate in the market.
- **Risk of inefficient allocation of costs** – a generator identifying generation costs as transmission costs due to the benefits of effectively offset capital expenditure with a long-term source of finance

4.40. We therefore consider it important that a generator competitively procures separately for transmission in a transparent, fair and non discriminatory manner. We also consider that there should be a requirement for generators to ringfence transmission costs from generation costs when signing procurement contracts under a generator build model.

Q4.7. What are the appropriate mechanisms for ensuring that generators ringfence transmission costs from generation costs when competitively procuring under a generator build approach?

Key issues

4.41. This section has highlighted a number of implementation issues associated with a generator build option. We now briefly consider the key issues associated with this option.

4.42. The generator build option may offer advantages in that generators can directly control the construction of generation projects and transmission projects, potentially benefitting from any economies of scale which may exist and avoiding any additional costs from delays or risks which may be caused by appointing two parties.

4.43. A generator build option extends the range of options available to generators and allows them to make choices based on their individual preferences, financing arrangements, perceptions of risk and skill sets. Overall, we consider that adding this option to the OFTO build option leads to an overall enduring regime which:

- Allows risk to be allocated to those generators that are able to manage it and avoids creating delays and extra risk in the generation market.
- In tandem with the other options consulted on previously, provides a flexible framework which is capable of reflecting the needs of generators of different sizes of project, with different financial structures and of different technologies.

4.44. We consider, however, that there a number of issues which will need to be considered to ensure that a generator build approach allows the objectives of the enduring regime to be met:

- To ensure network security and stability the option creates a need to amend the contractual arrangements between the NETSO and generator to ensure that the obligations of the STC and SQSS are in place. We expect a series of changes to the CUSC, STC and Grid Code to be necessary.
- The generator build option provides a much reduced scope of activities for an OFTO relative to the earlier appointment proposals. It is therefore likely to be an option which appeals to a different type of potential OFTO than approaches involving a greater scope of work. There is a risk that this may deter certain potential entrants. This may be particularly the case if parties are able to opt

initially for an early appointment but to self build assets if they do not like the results of the first tender.

- A generator build approach may provide inefficiencies through a generator identifying generation costs as transmission costs due to the benefits of effectively offset capital expenditure with a long-term source of finance. We note that these incentives increase the importance of ensuring compliance with the SQSS, of robustly assessing the cost of assets ex-post and the need for robust reporting rules.

5. Implementing the Generator Build option

Chapter Summary

This Chapter considers the routes available to deliver the amendments to the standard framework which we consider would be required to implement a generator build option, were a decision to be taken to introduce this option following consultation.

Question Summary

We would welcome respondents' views on the implementation of a generator build model:

- Q5.1. What is the most appropriate route to implement the required amendments to the standard industry framework to deliver the generator build option?
- Q5.5. What is the best approach to implementing OFTO of last resort arrangements under a generator build model?

We would particularly welcome **early** views by 9 September on:

- Q5.2. the feasibility of the timetable to deliver an enduring regime by 19 December 2010 (when the Secretary of State's powers expire);
- Q5.3. what are the minimum necessary changes to implement a generator build approach. Do respondents consider that it is possible to develop and deliver these changes by 19 December 2010?; and
- Q5.4. the best approach to ensuring timely, effective and fair transfer of assets to the OFTO.

Introduction

5.1. The discussions in previous chapters touched on a number of areas in which amendments to existing arrangements may be needed to deliver additional flexibility or to put in place measures to promote robust governance processes or to facilitate effective competition. This Chapter considers these issues in more detail, including, where appropriate, discussing alternative approaches to addressing issues. In particular, we consider the following:

- How to develop contractual frameworks to ensure that assets are built to appropriate standards and that co-ordination between OFTOs, Transmission Owners (TOs), generators and the NETSO is facilitated.
- Arrangements which allow the effective, timely and fair transfer of transmission assets on an enduring basis.

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- Managing the risk of stranded generation assets on an ongoing basis.
 - Steps which may be required to facilitate effective competition.
 - Other issues, including ensuring compliance with relevant European Directives.

Ofgem's Vires

5.2. It is necessary that Ofgem continues to have the ability to run effective competitive tender processes (to grant OFTO licences) under any new generator build model. DECC and Ofgem are currently considering whether the appropriate mechanisms are in place to do so.

Tender Regulations

5.3. To implement the generator build option, we would need to amend the Tender Regulations to reflect our proposals. Ofgem would consult on these once the policy approach is finalised and before Ofgem commences enduring tenders.

Amending industry codes and licences

5.4. As we discussed in Chapter 4, which considered the operation of a generator build option, we consider that relatively significant amendments to the standard framework are likely to be required to deliver a generator build option. Ofgem and DECC have considered potential routes to delivering these changes in a robust, co-ordinated and timely manner. There are currently two options available for making changes to transmission licences and industry codes which are:

- The Secretary of State can make changes using powers under sections 90 and 91 of the Energy Act 2004 to amend relevant codes, agreements and licences. These at Go-Active to make the necessary amendments to the codes and licences for the offshore transmission regime. These powers expire in December 2010 (18 months after Go Active). To use these powers to implement changes to the enduring regime will require finalising the design of the regime and identifying necessary amendments to the industry framework before their expiry in December. This will be challenging and require considerable co-operation and support from industry stakeholders.
- Normal governance arrangements where the Authority makes decisions on change proposals brought forward by industry stakeholders. We recognise that this would require significant cooperation from industry stakeholders and could create uncertainty over the timescales and eventual implementation of the regime. We also note that co-ordinating the development of amendments to the CUSC, STC, Grid Code and, potentially, other arrangements could be complex.

5.5. We also note that on 1 July the standard conditions of the electricity transmission licence were amended to introduce powers which would allow Ofgem to

initiate Significant Code Reviews (SCR). We note that the aim of SCRs is to facilitate consideration of decisions on complex reforms of a technical nature, in a way that is consistent with Government and European policy. However, while SCRs would give the Authority the power to direct changes, changes would still be brought forward through normal governance arrangements. The challenges of normal governance arrangements discussed above therefore apply to amendments through SCRs.

5.6. As set out in paragraph 1.18 there is a challenging timetable to consult upon the enduring regime, draft modifications to codes, consult on those modifications, and then instruct code owners to make any changes using Secretary of State's powers (which expire on 19 December 2010).

Q5.1. What is the most appropriate route to implement the required amendments to the standard industry framework to deliver the generator build option?

Q5.2. We would welcome early views on the feasibility of the timetable to deliver an enduring regime by 19 December 2010 (when the Secretary of State's powers expire).

5.7. We note that the timescales for delivering the regime are very challenging, and the regime may not be able to be delivered in its entirety by 19 December 2010. However, there may be specific elements of the regime that are considered to be achievable in these timeframes.

Q5.3. We would welcome early views on what are the minimum necessary changes to implement a generator build approach. Do respondents consider that it is possible to develop and deliver these changes by 19 December 2010?

Transfer of Assets to the OFTO

5.8. Chapter 4 set out the existing arrangements for transitional projects to ensure the fair, timely and efficient transfer of assets and identified the risks of not having arrangements under the generator build option. We have asked stakeholders whether they feel any arrangements to manage these risks would also be necessary under the generator build option. The possible options to incorporate arrangements in a generator build option are discussed below.

Introduction of new primary legislation

5.9. The case for the legislative approach, when it was adopted for the transitional regime, was that:

- bidders would know exactly what assets and risks they were adopting and would be able to price this risk into bids;

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- a transfer scheme enables the transfer of leases, licences, consents and contracts without requiring third party consents to be obtained. This could save time and avoid the potential for third party contractors to refuse to consent to the transfer;
 - a transfer scheme can also transfer liabilities, which can be quite difficult to implement under contractual arrangements;
 - a transfer scheme is able to split contracts and liabilities without requiring a re-negotiation of terms of contracts with third parties. Where generators have constructed generation and transmission assets using a single contractor and single contract, they should be able to effectively split any remaining liabilities and rights; and
 - a transfer scheme can also create new contracts where necessary (such as any necessary interface agreements between generator and OFTO).

5.10. We believe these arguments are also appropriate for the generator build model.

Voluntary Asset Transfer

5.11. Given that in the enduring regime generators will know that assets will have to transfer to an OFTO or risk being stranded, a voluntary asset transfer may be possible. A voluntary asset transfer would see the generator transfer its assets to an OFTO chosen through a competitive tender on terms which it would negotiate directly with the OFTO. Ofgem would only grant a licence once the transfer had been agreed. We consider that there are a number of potential problems and concerns with this approach, which are summarised below:

- Ofgem would have no power to determine what is in the voluntary agreement or to enforce the agreement. This could undermine the tender process as the agreement for the transfer of the assets would need to be negotiated with the preferred bidder after it has been selected through the tender process (it would be unreasonable and time consuming to expect the generator to negotiate with all the bidders before one is selected);
- the generator will have to obtain third party agreement for the transfer of leases, licences, consents and contracts, which may delay the process and increase the costs, and will need to be concluded before the OFTO is selected so that the OFTO has certainty that it is going to have all the assets it needs to operate the offshore transmission infrastructure;
- if the generator does not agree with the choice of OFTO or the cost assessment it may thwart this process (although in doing so, it would be stranding its own assets, unless there is to be an OFTO of last resort);
- if disputes arise, Ofgem does not have the power to resolve the disputes or make determinations;

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- consumers will ultimately bear the costs if the process fails and assets are stranded because the voluntary agreement is inadequate or is breached; and
 - The provisions of the Schedule 2A property transfer scheme provide a route of appeal to the Competition Appeal Tribunal.

5.12. We note that under OFTO build options there would be no ability for Ofgem to compel the transfer of the asset. However, the scale of what is at risk is far smaller for transfer of pre-construction works. We consider that the risks of the voluntary asset transfer approach outlined above are less onerous in this situation.

5.13. We recognise it is important that generators and potential OFTOs have sufficient clarity on how assets will be transferred. This matter will continue to be explored by DECC and Ofgem over the coming weeks. However, should parties have views we would welcome early feedback on this matter.

Q5.4. We would welcome early views on the best approach to ensuring timely, effective and fair transfer of assets to the OFTO.

OFTO of Last Resort

5.14. It may be possible to amend the OFTO of Last Resort provisions through use of Ofgem's powers under the Electricity Act. Alternatively there may be other routes to delivery, such as the utilisation of powers available to the Secretary of State under the Energy Act 2004 or subsequent powers.

Q5.5. We would welcome views on the best approach to implementing OFTO of last resort arrangements under a generator build model.

The Third Package

5.15. The unbundling provisions of the Third Package seek to achieve separation of transmission interests (ownership and operation of transmission systems) from generation activities. As set out in the July Ofgem/DECC open letter, issues relating to the Third Package will be dealt with through different consultation processes and mechanisms will be put in place separately.

5.16. The UK must comply with the requirements of the Third Package. Therefore, we have made clear in previous consultations that the Offshore Transmission regime would need to be compatible with the requirements of the Third Package. We need to ensure that a generator build approach can be implemented in such a manner that meets the third package requirements. While we consider that a generator build approach is compatible, we note that some activities around planning and design will sit with a generator. As such, we will need to ensure that this option is fully compliant with the requirements of the third package.

5.17. Ofgem's Consultation on the certification of transmission system operators under the Third Package, published in July 2010, set out Ofgem's initial view that offshore electricity transmission systems are covered by the definition of "transmission system". DECC has subsequently confirmed that, once built and licensed, offshore transmission infrastructure will need to meet the unbundling requirements of the Directive unless a derogation (or exemption) applies. Therefore OFTOs will have to comply with these requirements.

6. Facilitating co-ordinated offshore development

Chapter Summary

As well as promoting efficient individual connection solutions, the enduring regulatory regime needs to be capable of facilitating co-ordinated offshore development where this provides the most effective overall outcome. In this chapter we consider how the proposals outlined in the previous chapters promote co-ordination and request views on whether additional measures are required.

Question Summary

Q6.1. Do our proposals create sufficient opportunities for co-ordinated development of offshore transmission infrastructure?

Q6.2. Are there circumstances where additional offshore infrastructure development would be in the wider interest of the NETS?

Q6.3. Do you consider there to be any issues in respect of interoperability and standardisation?

Q6.4. We would welcome views on the materiality of issues surrounding interfacing with other regimes.

Introduction

6.1. The enduring regulatory regime should provide an appropriate framework to deliver timely investment in offshore transmission infrastructure. It is also important that the regime encourages efficient development of the NETS, both onshore and offshore. We recognise that a co-ordinated offshore and onshore network may bring significant benefits to users of the transmission system. We believe that the established regime is sufficiently flexible to enable co-ordinated development of the transmission system as a whole, although would welcome feedback from stakeholders on whether more can be done.

6.2. Several respondents to the December consultation, and interested stakeholders, raised concerns about whether Ofgem and DECC's proposals for the enduring regime would lead to the development of co-ordinated and optimised transmission networks in a timely manner. Those parties, including existing network companies, argued that a more "strategic" approach was required.

6.3. In this chapter we consider how the proposals outlined in this consultation document promote co-ordination and request views on whether additional measures are required. We consider:

- What we mean by co-ordinated development

-
- How strategic investment can be delivered under the current regulatory framework. In particular:
 - The role of the NETSO in promoting co-ordinated development;
 - The incentives for generators to find co-ordinated outcomes; and
 - Options for promoting greater co-ordination and strategic network development.
 - Whether it would be beneficial for the NETSO to be able to make the case for additional offshore transmission assets to supplement those triggered by a generator connection request, for example the triggering interconnection between generators (e.g. between zones).

Co-ordinated Network development

6.4. We note that co-ordinated network development can be interpreted in different ways. In our view, co-ordinated network development requires a framework which allows the transmission network to develop efficiently and which allows economies of scale to be realised, without exposing consumers to unnecessary costs or risks. For such a framework to be effective, it should be able to respond flexibly to future needs of users and can identify cases in which synergies or social benefits (such as increased security of supply) can be realised through greater co-ordination or interconnection of transmission assets.

6.5. We consider that effective co-ordination of onshore and offshore network development requires clear and well defined roles for the system operator (which is tasked with facilitating co-ordination), and those parties developing the transmission assets. It is therefore important that robust industry codes and governance frameworks which promote information sharing and facilitate co-operation between parties are in place.

6.6. Efficient development of the transmission system is most likely to occur where:

- investment takes place in response to clearly signalled demands for capacity by network users (backed by appropriate financial commitments);
- the transmission system meets the requirements of each system user for capacity in a timely manner; and
- the design of the network identifies the most cost effective investment opportunities taking account of the demands signalled by all users.

6.7. We consider that our proposals provide a framework for delivering efficient network development. The development of the offshore transmission system is primarily driven by the capacity requirements signalled by offshore generators. We also consider that National Grid has an important role as NETSO to facilitate co-ordinated develop opportunities across the transmission system more widely, taking account of the capacity demands signalled by other users.

6.8. The remainder of this chapter outline the ways in which our proposals facilitate co-ordinated development of the transmission system and explores whether additional measures are required to ensure that effective co-ordination is achieved.

How the regime supports co-ordinated offshore development

6.9. This section sets out the roles of industry participants in delivering effective co-ordination. Specifically, it considers the role of the NETSO, generators and the Crown Estate.

The role of the NETSO

6.10. At Go-Active, DECC extended the scope of NGET's system operator role to offshore waters. As such, NGET is responsible for the day-to-day management of the flow of electricity across the national electricity transmission system, onshore and offshore. It also extends the role of the NETSO for co-ordinating new connections to the transmission system.

Obligations under the Electricity Act

6.11. Section 9(2) of the Electricity Act 1989 sets out the general duties of transmission licence holders. It notes that: "it shall be the duty of the holder of a licence authorising him to participate in the transmission of electricity:

- to develop and maintain an efficient, co-ordinated and economical system of electricity transmission; and
- to facilitate competition in the supply and generation of electricity."

The Offshore Development Information Statement

6.12. In developing the offshore transmission regime, Ofgem consulted on and subsequently implemented new obligations in the licence of NGET. These obligations require NGET to produce an annual Offshore Development Information Statement (ODIS). This statement is required to set out a range of future scenarios for the development of the offshore transmission system based on information available to NGET. The purpose of this statement is to provide information about the likely impact of possible future scenarios on the development of the NETS. This includes the opportunities for co-ordinated development of transmission connections. We have previously highlighted that such information could be useful to offshore developers when making strategic decisions in respect of their offshore generation projects.

6.13. The interim ODIS statement has already been published¹⁹ and we expect the next statement to be published in September 2010 and annually thereafter. We believe this will provide valuable information for offshore developers and others with an interest in offshore networks to identify scope for co-ordination benefits.

The role of generators

6.14. We have already set out that offshore generators have an important role in triggering the competitive tender process, based upon their capacity requirements and operating requirements. It is therefore important that offshore generators make informed decisions as these are most likely to align their commercial interests with the wider interests of consumers.

Requesting connections from the NETSO

6.15. A key issue in developing co-ordinated offshore infrastructure is access to information. Effective co-ordinated development of the transmission system requires information about how the demands for transmission infrastructure will develop over time. Therefore, a key consideration when thinking about how effective co-ordination is achieved is to identify who is best placed to manage information about the overall requirements of the transmission system.

6.16. The Crown Estate has awarded geographic leases to some of the world's largest energy companies and individual consortia have been granted development rights for particular offshore zones. These parties will form a view about how much capacity to develop, where to locate projects within zones and when to bring capacity to market. These decisions will be reflected in their connection applications to the NETSO for a connection to the transmission system.

6.17. Under the offshore regulatory framework, generators are able to apply for staged connection to reflect when generating capacity is expected to be operational. This enables generators to signal their capacity requirements to the NETSO over an extended period. Moreover, it provides a basis on which the NETSO may take a view on how best to meet the requirements for transmission capacity as a whole. We consider that these factors should enable the transmission system to develop efficiently.

Incentives to seek cost effective connections

6.18. Offshore generation is expected to make an important contribution to the achievement of the UK's renewable energy targets. The successful deployment of large volumes of offshore generation will depend, in part, on achieving connection to

¹⁹ The interim ODIS statement is available from the [National Grid website](#).

the transmission system in a cost effective manner. As such, we consider that offshore generators have a strong incentive to seek (through discussions with the NETSO and, potentially, other parties) cost effective connection solutions and, where appropriate, look to secure any benefits of adopting a co-ordinated approach.

The role of The Crown Estate

6.19. We note the Crown Estate also has an important role in facilitating co-ordinated developments offshore, as discussed below.

A seabed owner and manager

6.20. The Crown Estate has extensive marine assets, including ownership of approximately 55% of the UK's foreshore and the majority of the seabed within the 12 nautical mile UK territorial limit. It also has the right to exploit natural energy resources, excluding fossil fuels, on the continental shelf within the Renewable Energy Zones. The Crown Estate has a responsibility to ensure an efficient and sustainable use of seabed in relation to marine activities, including corridors for cables and pipelines within 12 nautical miles and those cables associated with renewable energy infrastructure in the Renewable Energy Zones.

Awarding Leases or Agreements

6.21. The Crown Estate first tendered sites for offshore wind demonstration sites (Round 1, 2001) and for commercial deployment (Round 2, 2003; Round 3, 2009 and Scottish territorial waters, 2008). In addition a test and demonstration site Round and a Round inviting applications for extensions to existing Round 1 and 2 sites were undertaken in 2009.

6.22. Following the Round 3 tender process undertaken during 2009, The Crown Estate awarded Zonal Development Agreements (ZDAs) for 9 marine wind farm development Zones. The ZDAs allow parties to identify sites with development potential within each Zone for which an Agreement for Lease may be applied for in order that generation projects can be developed. The ZDAs specify the target level of generation capacity to be developed and set the broad area within which development can occur. Once a project has obtained all necessary consents the Agreement for Lease can be converted to a full Lease.

Investing in development of Round 3 projects

6.23. The Crown Estate is a co-investor with its development partners in Round 3 offshore wind projects to the point of reaching consent and has committed to investing over £100 millions.

6.24. The Crown Estate is in the unique position of having a commercial interest in, and holding information about, each offshore development and it is able to facilitate co-ordination and co-operation between project developers. The Crown Estate has

stated that engagement with stakeholders over national and zonal issues to highlight issues early and build long-term relationships is crucial to delivering significant growth in the offshore wind sector.

6.25. The above factors mean that the Crown Estate is well placed to work with stakeholders to identify potential economies of scale or efficiency savings and to ensure that development occurs in an appropriate and co-ordinated manner

Summary of co-ordination under the enduring regime

6.26. In summary, the key ways in which the offshore transmission regulatory regime may deliver co-ordinated development of the transmission system, onshore and offshore are:

- A NETSO is in place that is responsible to for the day-to-day co-ordination of electrical flows across the transmission system, supported by obligations to develop an economic, efficient and co-ordinated system.
- The publication of an annual ODIS statement which sets out scenarios on the potential development of the NETS offshore. This should enable developers to take decisions on an informed basis.
- The regime puts decisions about how much capacity to request and when to request that capacity in the hands of generators who have incentives to find cost effective outcomes and, where appropriate, work together to secure the benefits of co-operation.
- The regime protects customers from taking the risk of stranded assets by allowing transmission investment triggered by firm financial commitments.

6.27. As a co-investor in the Round 3 zones, the Crown Estate also has an important role in facilitating co-ordination of offshore infrastructure.

6.28. We consider that the competitive tender process for offshore transmission licences is sufficiently flexible to accommodate tenders for co-ordinated infrastructure. Provided that the scope of the tender is specified appropriately then the competitive process should deliver cost effective transmission infrastructure in a secure and timely manner.

Q6.1. Do our proposals create sufficient opportunities for co-ordinated development of offshore transmission infrastructure?

Options for delivering greater co-ordination

6.29. We have set out above how we consider our current proposals for the enduring regime facilitate the delivery of co-ordinated offshore investments. We have

highlighted the importance of initially putting decisions about what infrastructure is required in the hands of generators, while the NETSO has an important role in ensuring that all requirements are met in a cost effective manner. Nonetheless, we would welcome views on whether further steps should be taken to promote the co-ordinated development of the transmission system.

6.30. Over time, we recognise that more integrated offshore network infrastructure may be desirable. The extent of integration will depend on a number of factors, including:

- The scale, volume and location of offshore generation, including the desire for further development of marine renewables;
- Other demands for transmission capacity, including greater integration with Europe;
- The speed of development of offshore technology, such as high capacity HVDC;
- The anticipated availability of feasible cable routes and landing points;
- Environmental factors, such as the protection of environmentally sensitive areas; and
- The cost and benefits derived from co-ordination of the transmission system.

6.31. In the medium term, integration offshore development may be desirable where:

- a connection between two or more windfarms or offshore zones is expected to improve network resilience, and therefore enhance system security, such the benefits of doing so sufficiently outweigh costs.
- undertaking investment offshore would more effectively meet the requirements of users of the NETS. This may include providing additional assets offshore to relieve wider system constraints.

6.32. Under these circumstances, we consider that it is likely to be in consumers' interests that tenders are held to facilitate the delivery of this additional infrastructure. Since the requirement for transmission infrastructure is likely to be triggered by the changing demands for transmission system capacity then it may be appropriate for the NETSO to specify additional assets that forms part of a competitive tender triggered by a generator. In doing so, we would expect that the NETSO would be required to demonstrate a robust need case, including that such assets would derive a clear benefit to consumers (possibly expressed against a net present value test).

6.33. As with the onshore network, we recognise that there might be circumstances in which individual generators may not be able to deliver the most effective outcome,

due to conflicting commercial interests. We consider that under these circumstances the NETSO has a key role in identifying and facilitating opportunities for integration. Under the current framework, at the initial stage, the NETSO is required to make assumptions about the scope of offshore works required. There are restrictions on the factors that the NETSO can take into account (for example the NETSO must take account of contracted background and offer terms for works reasonably required). On receipt of an offer for connection from the NETSO, an offshore generator decides whether to accept, dispute or reject the agreement offered. The generator would be able to dispute the basis of the offshore works assumptions. The Authority would assess if the offshore works assumptions were reasonable in making a determination to resolve the dispute.

6.34. We recognise that there are a number of challenges to delivering the most economic and efficient transmission system. We therefore consider that it is important that our proposals are capable of robustly assessing any investment case which is put forward and delivering this investment in a timely manner and we would welcome respondents' views on the best method of achieving this.

Q6.2. Are there circumstances where additional offshore infrastructure development would be in the wider interest of the NETS?

Other issues

6.35. We also consider that there are several other issues and interdependencies which may influence co-ordinated offshore development.

Interoperability and standardisation

6.36. We note that realising the benefits of co-ordination may require some level of standardisation by developing and introducing technical standards. The future development of offshore networks is likely to be more effective if technologies which are interoperable are installed and it will be more difficult to develop co-ordinated networks if bespoke solutions are brought forward.

6.37. While the SQSS specifies minimum technical standards for system security and quality of supply, the technical specification of equipment is not restricted to defined standards. Hence we view this as an issue for the industry and the offshore transmission supply chain to consider and, if appropriate, address through the relevant industry code forum.

Q6.3. Do you consider there to be any issues in respect of interoperability and standardisation?

Interfacing with other regimes

6.38. We note that the offshore transmission regime may interface with other regulatory regimes and with the regime governing interconnection. Ofgem and DECC therefore recognise the need to ensure that regimes interface effectively and do not create any barriers to efficient network development.

6.39. We note that Ofgem has recently consulted on the regulatory treatment of interconnectors.

Q6.4. We would welcome views on the materiality of issues surrounding interfacing with other regimes

Appendices

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Appendix 1 - Consultation Response and Questions

Next Steps

1.1. We are issuing this consultation document for a period of five weeks. During the consultation period we would be pleased to discuss the issues raised in the document with interested parties.

1.2. In parallel with the consultation process we will continue to consider the key challenges raised by the generator build and other option and the steps which need to be taken to deliver an effective enduring regime. Based on responses to this consultation, we intend to publish an implementation consultation in late October. Following this consultation, we intend to publish a decision document later in the year.

Responding to this document

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

1.4. We would especially welcome responses to the specific questions which we have set out at the beginning of each chapter heading.

1.5. Responses should be received by 29 September 2010 and should be sent to:

Sam Williams
Ofgem
9 Millbank
London SW1P 3GE
Email: offshoretransmission@ofgem.gov.uk

Paul Hawker
Department of Energy and Climate Change
4th floor area D
3 Whitehall Place
London SW1A 2AW
Email: offshore.transmission@decc.gsi.gov.uk

1.6. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. 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.

1.7. 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.

1.8. Any questions on this document should, in the first instance, be directed to:

Sam Cope
Senior Manager, Offshore Transmission
Ofgem, 9 Millbank
London
SW1P 3GE
Tel: 020 7901 7239
Email: Sam.Cope@ofgem.gov.uk

Chapter 3: OFTO Build Options

- Q3.1. Do you agree with the proposed scope of activities defined as pre-construction works?
- Q3.2. What are the appropriate mechanisms for ensuring that contingencies are managed efficiently?
- Q3.3. What are your views on allowing generators a role in informing the evaluation criteria for technical issues or enabling generators to comment on the technical sections of the bid submissions?
- Q3.4. What should be Ofgem's role in the transfer of property rights and consents to the OFTO?
- Q3.5. Should we extend OFTO of last resort arrangements to include failed OFTO build tenders (noting a generator could construct their own assets should the tender process fail to identify an OFTO under those appointment options), and if so should the obligations be extended to all transmission licensees?
- Q3.6. What are the appropriate mechanisms for ensuring that there is effective competition across the supply chain under OFTO build options?
- Q3.7. How feasible are fixed price bids under an early OFTO appointment tender process? Is a bid based on approaches to procurement and financing possible?
- Q3.8. To what extent can design innovation be realised under an early OFTO appointment approach, given the restraints imposed by the connection offer and technical codes and standards?

- Q3.9. What are your views on the proposal to align stages of the tender process to milestones within the planning process?
- Q3.10. Are changes to the standard framework required to deliver an effective late OFTO appointment approach?
- Q3.11. Which approach to engaging with the supply chain of the three suggested under a late OFTO appointment enables the greatest level of competition?
- Q3.12. Do the form and nature of arrangements for asset transfer under a late OFTO appointment need to differ substantively from an early OFTO appointment?

CHAPTER 4: Generator Build Option

- Q4.1. Should a generator build approach be included in the enduring regime?
- Q4.2. Are changes needed to the connection application process to reflect the different scope of information available at each stage for NETSO offers under a generator build option?
- Q4.3. Do you agree with our initial assessment of required amendments to the standard industry framework? Have you identified further areas that may require amendments?
- Q4.4. Do you agree that there is now sufficient understanding of the offshore transmission market and arrangements for cost assessments to remove the need for an ex-ante cost guarantee?
- Q4.5. Do you think that action is required to ensure fair and timely asset transfer from the generator to the OFTO, given that the property transfer scheme only applies to transitional projects?
- Q4.6. Are OFTO of last resort arrangements required under the generator build approach and if so, should the obligations be extended to all transmission licensees?
- Q4.7. What are the appropriate mechanisms for ensuring that generators ringfence transmission costs from generation costs when competitively procuring under a generator build approach?

CHAPTER 5: Implementing the Generator Build Option

- Q5.1. What is the most appropriate route to implement the required amendments to the standard industry framework to deliver the generator build option?
- Q5.5. What is the best approach to implementing OFTO of last resort arrangements under a generator build model?

We would particularly welcome **early** views by 9 September on:

- Q5.2. the feasibility of the timetable to deliver an enduring regime by 19 December 2010 (when the Secretary of State's powers expire);
- Q5.3. what are the minimum necessary changes to implement a generator build approach. Do respondents consider that it is possible to develop and deliver these changes by 19 December 2010?; and
- Q5.4. the best approach to ensuring timely, effective and fair transfer of assets to the OFTO.

CHAPTER 6: Facilitating Co-ordinated Offshore Development

- Q6.1. Do our proposals create sufficient opportunities for co-ordinated development of offshore transmission infrastructure?
- Q6.2. Are there circumstances where additional offshore infrastructure development would be in the wider interest of the NETS?
- Q6.3. Do you consider there to be any issues in respect of interoperability and standardisation?
- Q6.4. We would welcome views on the materiality of issues surrounding interfacing with other regimes.

Appendix 2 – December 2009 Consultation Responses

Introduction

1.1. This Chapter provides an overview of the key themes arising from the 21 responses we received to the December consultation. Copies of all non-confidential responses are available from the Ofgem website.

1.2. The key issues raised by respondents were:

- Generators unanimously raised the concern that the regime would increase risk for generators as they would have less control over the design and delivery of those assets. They suggested that generators be given the enduring option of constructing assets themselves in response to this.
- Generation project developers set out that the enduring tender process would delay projects that narrowly missed the transitional tender criteria and called for an extension to the existing “transitional” arrangements.
- A significant number of generation project developers considered that our proposals not to allow “capacity oversizing” were inconsistent with facilitating efficient offshore development. Some parties also advocated a “zonal OFTO” approach or, in one case, a change in approach such that a single party was responsible for the delivery of all offshore assets.
- Views were divided on how much scope for variant bids should be provided. Parties noted that significant scope could maximise innovation but noted they could also create evaluation challenges. They therefore stressed the need to avoid delaying generation projects. In addition, the majority of generation project developers argued that the developer should have an explicit role in bid evaluation.
- There was general support for proposals to compress and streamline tender timescales, including removing the Qualification to Tender stage of the process. However, parties were supportive of some flexibility in timescales which could reflect project specific factors.
- Parties recognized the need to promote effective competition, though no party felt it was appropriate to explicitly facilitate new entry. Parties expressed concern about the practicality of prohibiting exclusive contracting with the supply chain and generally felt that the requirements of the licence and competition law should be sufficient to address concerns over access to cables or land.
- In general, parties were supportive of our proposals in respect of the revenue stream and package of incentives, though several parties suggested that availability incentives should be strengthened.
- Respondents pointed to ambitious industry plans for offshore developments, and to the UK’s membership of the North Sea Grid Initiative. They stressed the need

to ensure regimes for interconnection and offshore transmission were compatible and to address these issues sooner rather than later to provide certainty.

1.3. More detailed discussions of responses in respect of each of the themes of the consultation document are set out below.

Extending the Transitional Regime

1.4. Respondents also proposed that generators be given the enduring option of constructing the offshore transmission assets themselves. They raised the concern that the regime would increase risk for generators as they would have less control over the design and delivery of those assets. They also argued that a generator would have more at stake than an OFTO should delivery be delayed. They claimed that financiers of generation projects would respond to this perceived risk by levying a premium which could increase costs to consumers.

1.5. Respondents had concerns that a limited number of projects that had experienced delays in construction would not be able to qualify for the second transitional tender round under the Tender Regulations in place at the time. They felt that the enduring arrangements would not be able to facilitate the timely delivery of transmission assets for these projects. They suggested an extension to the transitional arrangements in response to this. Respondents also had concerns that delays to projects caused by the enduring regime could render the enhanced ROC support for offshore wind meaningless, as it is limited to projects accredited by 2014.

Oversizing Capacity

1.6. Six respondents disagreed with our proposals not to include proposals to incorporate the "oversizing" of capacity into the regime and suggested that oversizing capacity is important in encouraging efficient zonal development and innovation.

1.7. One party stated that if oversizing is to be incorporated, it needs to be backed by a reasonable level of user commitment, and welcomed discussion on how user commitment arrangements might work offshore. One agreed that stranding risk should be borne by the developer, though another stated that the generator cannot be expected to underwrite the additional cost associated with over-sizing capacity and that a risk sharing mechanism would be required.

Variant Bids and Evaluation

1.8. Twelve replies addressed the issue of allowing and evaluating varying bids, with responses varying significantly. One respondent stated that there should be no flexibility, as it would cause exposure to uncertain and significant costs and risks, while two respondents said that OFTOs should be required to bid against a tight specification when generators are facing significant time pressures. One bidder said there was a role for NETSO in defining cases where standards should be applied and where flexibility should be allowed. This party suggested that NETSO should also

provide onshore cost implications of the plausible onshore connection points to be bid against.

1.9. A majority of respondents considered that variant bids should only be allowed if the benefits could be demonstrated. Of these, two thought that variant bids would be self regulating due to the extra costs involved. Three respondents also suggested that variant bids should be submitted alongside a compliant bid. All generation project developers which responded were keen that there should be generator involvement throughout the ITT stage to ensure acceptance of variant bids.

Tender Timings

1.10. Ten respondents supported streamlining the tender process. Of these parties, two noted that the longer the process, the less valid prices would be and hence the greater scope for including risk premia in bids. The overall lengths suggested ranged from five months (3 for bidders, 2 for evaluation) to 11 months (9 for bidders, 2 for evaluation) though one respondent had concerns that the ITT evaluation time of 3 months was too short given the complexity of bids. Five parties also respondents promoted a flexible approach to the ITT stage according to the specific requirements of the project.

1.11. Two respondents suggested a streamlined approach by which a bidder is selected on the basis of high level bids early in the process, who then revise risk and price later. Two other respondents thought the tender process was too long and the enduring regime could imply unnecessary delays.

1.12. One developer with experience of the first transitional tender round highlighted the exceptionally challenging timescales of the tender process and stated that consideration should be given to how much of this was down to first time effects. Another developer said that the suitability of the timings of the tender process depends on the detail in the requirements of the high level specifications and that lessons should be learnt from the transitional tender rounds.

Competition Issues

1.13. In general parties recognised the need to facilitate effective competition within the regime and noted the potentially undesirable consequences of limiting access to land and cable routes and/or of contracting between manufacturers and bidders on an exclusive basis. However, no party felt there was a need to include provisions within the regime to explicitly promote new entry, though one suggested we should keep our position under review.

1.14. In respect of exclusive contracting with the supply chain, two respondents considered that supply chain exclusivity should not be permissible under the enduring regime as it could significantly constrain competition. One had concerns that suppliers may team up with bidders who may be affiliates of TOs that they do significant business with. They also had particular concerns in terms of long HVDC cables, as there is only one supplier with sufficient capacity to accommodate their

manufacture. Eight respondents felt that there should not be measures to preclude supply chain exclusivity under the enduring regime. Of these respondents, two parties considered that existing competition legislation should be sufficient to discourage exclusivity.

1.15. The consultation document also considered whether there was merit in an option involving bidding on the basis of indicative costs and tendering after appointment (which may maintain competitive pressure). Eight respondents thought that this approach was worthy of further consideration, although four gave the approach conditional support. One party felt it was unlikely to be effective unless accompanied by an obligation to not enter into exclusive or binding arrangements at the time of OFTO tender. Another thought that it only had merit if it could be shown to reduce the timetable from tender initiation to commissioning. Three respondents were opposed to this approach. Two expected that there should be firm bids in the tender to avoid delays; the other felt that this approach could lead to additional risk premiums being built into the bid, resulting in an economically inefficient result.

1.16. Four respondents also considered that the existing regulatory and legal safeguards were sufficient to ensure that access to offshore cable capacity and cable routes is made available. One respondent suggested an approach by which developers obtain rights to the land or cable corridors and make them available to OFTOs as and when required. Another said that control of a single cable route constitutes a monopoly, and will require regulation.

Revenue Stream and Incentives

1.17. There was a general consensus among respondents that the broad structure of the revenue stream and incentive mechanisms remained appropriate. Four parties explicitly stated that the existing incremental capacity incentive structure remains appropriate, while two suggested that the OFTO should be able to undertake some incremental capacity expansion without a new tender process and another suggested that the existing twenty percent cap should be revised.

1.18. Seven developers suggested that there was a case for placing a stronger incentive that incentivises quick repairs by OFTOs. One respondent supported the current incentive, while one supported the concept but suggested an alternative method of structuring the incentive.

1.19. We did not receive any evidence to support the inclusion of a refinancing claw-back mechanism or a mechanism to deal with insurance market volatility and parties suggested that these mechanisms could constrain the scope for innovation.

Responding to Future Developments

1.20. Six respondents highlighted the need to co-ordinate offshore transmission assets and interconnectors in the enduring regime. One highlighted concerns that merchant interconnectors could be developed close to prospective wind farms in order to circumvent the competitive regime.

1.21. Two respondents asserted that dealing with future expansion and extension of offshore assets was an issue that needs to be addressed in the short term. They argue that this decision is on the critical path for decisions on whether or not there should be connection applications for a large, phased project or separate applications for each stage.

1.22. We have fully considered comments raised by respondents in developing the proposals in this document.

Appendix 4 – The Authority’s Powers and Duties

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

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.²⁰

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly²¹.

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

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

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them²²;
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.²³

²⁰ Entitled “Gas Supply” and “Electricity Supply” respectively.

²¹ 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.

²² 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.

²³ The Authority may have regard to other descriptions of consumers.

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

- promote efficiency and economy on the part of those licensed²⁴ 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; and
- secure a diverse and viable long-term energy supply.

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

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

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation²⁵ 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.

²⁴ Or persons authorised by exemptions to carry on any activity.

²⁵ Council Regulation (EC) 1/2003

Appendix 5 - Glossary

A

Authority

The Gas and Electricity Markets Authority

B

BAFO

Best And Final Offer

C

CUSC

Connection and Use of System Code

G

GBSO

Great Britain System Operator

I

IPC

Infrastructure Planning Commission

ITT

Invitation To Tender

N

NETS

National Electricity Transmission System

NETSO

National Electricity Transmission System Operator

NGET

National Grid Electricity Transmission

O

ODIS

Offshore Development Information Statement

Ofgem

Office of Gas and Electricity Markets

OFTO

Offshore Transmission Owner

P

PFI

Private Finance Initiative

PPP

Public Private Partnership

PQ

Pre-Qualification

Q

QTT

Qualification to Tender

S

SCR

Significant Code Review

SQSS

Security and Quality of Supply Standards

STC

System Operator - Transmission Owner Code

T

TO

Transmission Owner

Z

ZDA

Zonal Development Agreement

Appendix 6 - 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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