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# Offshore Transmission: Guidance for Cost Assessment

## Guidance Document

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### Overview:

Offshore transmission plays an integral part in attaining the Government's target to provide 15% of the United Kingdom's energy needs from renewable sources by 2020. Efficient delivery of transmission assets for offshore wind energy projects forms a core part of the strategy for reaching this objective in the most cost effective manner.

The Department of Energy and Climate Change (DECC) together with the Gas and Electricity Markets Authority (the "Authority") have developed a regulatory regime for the construction and operation of offshore transmission assets to facilitate this objective. Under the regime, Ofgem runs a competitive tender process to select and license Offshore Transmission Owners (OFTOs).

This guidance document sets out the general cost assessment process that we follow for qualifying projects in the transitional tender rounds for offshore electricity transmission. It also describes our approach for determining the economic and efficient costs of offshore transmission assets during this process. It provides developers of offshore transmission assets with an overview of the current process and the information we expect to be provided with before costs can be included in the assessed transfer value of the offshore transmission assets.

This guidance is also intended to form the basis of our cost assessment approach to projects which qualify into the enduring regime.

## Context

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Ofgem<sup>1</sup> and the Department for Energy and Climate Change (DECC) have developed a regulatory regime for offshore electricity transmission. A key part of this regime is that offshore electricity transmission licences may be granted to Offshore Transmission Owners (OFTOs) following a competitive tender process run by Ofgem.

The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010 (the **Regulations**) provide the legal framework for the process which Ofgem will follow for the grant of offshore electricity transmission licences.

The Regulations<sup>2</sup> set out the requirement in respect of a transitional tender exercise for the Authority to calculate, based on all relevant information available to it at that time, the economic and efficient costs which ought to be, or ought to have been, incurred in connection with developing and constructing the offshore transmission assets in respect of a qualifying project.

Where the Authority has determined to grant an offshore electricity transmission licence to the successful bidder in respect of a particular project, the assessment of costs shall be used by the Authority to determine the value of the transmission assets to be transferred to the successful bidder. This value will be reflected in the revenue stream in the offshore electricity transmission licence granted to the successful bidder.

There are current proposals to replace the Regulations with revised regulations which are expected to come into force in early 2013, subject to consultation. The revised regulations, if and when enacted, will be the Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2013 (the **New Regulations**)<sup>3</sup>, which will govern enduring tender exercises. The New Regulations will set out the requirement for the Authority to conduct the cost assessment and determine the transfer value in substantially the same manner. References to "Regulations" in this document are to the 2010 Regulations.

## Associated documents

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- The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010: [Link](#)
- Offshore Transmission: Tender Rules: [Link](#)
- Offshore Transmission – Consultation on potential measures to support efficient network co-ordination: [Link](#)
- Offshore Electricity Transmission: Consultation on tender exercises under the enduring regime: [Link](#)

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<sup>1</sup> The Gas and Electricity Markets Authority is the regulator of gas and electricity markets in Great Britain. Ofgem is the Office of Gas and Electricity Markets, which supports the Authority in performing its statutory duties and functions. It is the Authority which is responsible for exercising the relevant statutory powers.

<sup>2</sup> Regulation 4(1) (Calculation of costs incurred in connection with transmission assets)

<sup>3</sup> If enacted as currently drafted for consultation, the New Regulations will apply to a qualifying project where the Authority has given notice in respect of the Invitation To Tender stage on or after the date upon which the New Regulations come into force. If the Authority has already given such notice prior to the date the New Regulations come into force, the existing Regulations will continue to apply for that project.

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# Executive Summary

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The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010 (the Regulations) provide the legal framework for the process which Ofgem runs for the grant of offshore electricity transmission licences. This process includes assessing the economic and efficient costs of developing and constructing the offshore transmission assets.

This document is intended to inform interested parties, to the extent possible at this stage, of the Authority's approach to cost assessment for offshore transmission. Much of this has already been documented in the six cost assessment reports published to date by the Authority in connection with projects in the transitional tender round<sup>4</sup>.

As such, this document distils our experience of conducting the cost assessment process on the transitional tender round projects. By providing this information, we expect that developers will improve their understanding of the offshore transmission cost assessment process and be better prepared to engage in the process.

This guidance is relevant to both ongoing and future cost assessments. We intend to keep both this guidance and our approach to cost assessment under review to ensure alignment with policy developments in the offshore regime and to deal with project specific issues as they arise. We will continue to engage with stakeholders and consult as appropriate to ensure the regime remains fit for purpose.

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<sup>4</sup> <http://www.ofgem.gov.uk/Networks/offtrans/Pages/Offshoretransmission.aspx>

# 1. The Cost Assessment Process

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## Chapter Summary

We set out both the context for cost assessment within the regulatory regime for offshore transmission and the cost assessment process adopted for all transitional round one (TR1) and transitional round two (TR2) projects to date.

## The purpose of offshore transmission cost assessment

1.1. As part of the regulatory regime introduced by the government in June 2009 to ensure cost effective development of offshore transmission infrastructure, licences for offshore electricity transmission are granted to an entity which is identified by means of a competitive tender process run by Ofgem in accordance with the Regulations.

1.2. The regulatory regime for offshore transmission encompasses both a transitional and an enduring regime. Under the transitional regime, developers are able to construct the transmission assets which are then transferred to an offshore transmission owner (the **OFTO**). All transfers to date have been on the basis of an asset sale, effected by a transfer agreement which is commercially agreed between these parties<sup>5</sup>.

1.3. The developer transfers the transmission assets to the OFTO at a transfer value determined by the Authority in accordance with the Regulations<sup>6</sup>. The OFTO will then operate and maintain the assets in accordance with the requirements of the licence and the wider regulatory framework. In return for operating and maintaining the transmission assets, the OFTO receives a long-term revenue stream.

1.4. The transfer value of the transmission assets is a key component for determining the OFTO's revenue stream. It is also used in National Grid's charging methodology to calculate the transmission charges that are payable by the generator for use of the offshore and onshore elements of the national electricity transmission system.

1.5. The qualification period for projects to be included in the transitional tender exercises has now passed. All future projects will fall under the enduring regime arrangements. Under the enduring regime, developers may choose to either:

- develop and construct the transmission assets themselves and transfer them to the OFTO identified through a competitive tender exercise (the "Generator build" option); or
- undertake high level design and preliminary works, but then have an OFTO identified through a competitive tender exercise undertake the detailed design, procurement and delivery of the transmission assets (the "OFTO build" option).

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<sup>5</sup> All transfers to date have been on the basis of an asset sale; any share based transaction (if permitted) may require a variation on how the principles are applied.

<sup>6</sup> Regulation 4.

1.6. The cost assessment process for each of these two build options will be different, as one will be based on the economic and efficient costs of obtaining the preliminary works (in the case of OFTO build) and in the case of generator build, will be the economic and efficient costs of developing and constructing the transmission assets. However, we expect the principles against which costs are assessed to be economic and efficient to be similar. We will continue to develop our thoughts on the cost assessment process for OFTO build in parallel with the development of the enduring regime.

## Regime development

1.7. The Regulations do not stipulate how the Authority should calculate the economic and efficient costs of developing and constructing the transmission assets. Whereas Ofgem has a long history of conducting cost assessments on regulated monopoly providers of onshore transmission infrastructure, the offshore transmission developers will not have been directly exposed to these processes. Additionally, the offshore regime poses challenges not experienced in the onshore regime. For example, offshore cable laying techniques are still developing and new technologies are emerging to meet the challenges of deep water developments. It is also unusual for a third party (the Authority) to determine the value at which assets are to be transferred between two commercial parties. Therefore, the offshore cost assessment process is unique in many ways.

1.8. The intention of this guidance is to inform developers and other interested parties of the Authority's approach to cost assessment, which should help to improve the process for all stakeholders. We will continue to explore ways in which the regime can be improved, in consultation with stakeholders.

1.9. Many of the transitional rounds 1 and 2 projects were at or past the design stage by the time the regulatory regime for offshore transmission was established. Feedback from the industry suggests that going forward, developers would welcome engagement with Ofgem during the early design stage, so as to reduce the likelihood that designs are considered inefficient later in the cost assessment process. We expect to consult on the nature and extent of such engagement.

## Stages of the offshore transmission cost assessment process

1.10. The Regulations require the Authority to determine the value of the transmission assets to be transferred to the OFTO, by calculating the economic and efficient costs which ought to be, or ought to have been, incurred in connection with developing and constructing the transmission assets. This is by way of two key determinations as follows:

- an estimate of the costs which ought to be incurred, where the construction of the transmission assets has not yet reached a stage when they are available for use for the transmission of electricity. This estimate is referred to as the Indicative Transfer Value (the **ITV**). In practice, the ITV has been determined prior to the Invitation To Tender (**ITT**) stage of the tender process and used by qualifying bidders as a financial assumption in their ITT bid submissions.
- An assessment of the costs which ought to have been incurred, where construction of the transmission assets has reached the stage that they

are available for use for transmission of electricity. This assessment of costs is used by the Authority to determine the value of the transmission assets to be transferred to the OFTO, and is referred to as the Final Transfer Value (**FTV**).

1.11. The developer facing cost assessment process is conducted by the Authority in parallel to the bidder facing side of the tender process. Set out below is an overview of stages of the cost assessment process and the points at which they currently interact with the bid side of the tender process. This overview is based on our experience of conducting the tender process under the transitional regime to date. As application of the enduring regime proceeds, the tender process and the points at which it interacts with the cost assessment process will evolve accordingly.

### **Initial transfer value**

1.12. Following commencement of a tender exercise, the cost assessment process has focussed on identifying an "Initial Transfer Value". This is not the "estimate" of costs conducted by the Authority under the Regulations, but the developer's initial estimate of how much they anticipate the offshore transmission assets will cost to build. Ofgem provides the developer with a pro forma 'cost template' in which to submit this cost information, broken down into certain categories, namely: capital expenditure; development costs; interest during construction; and transaction costs. To date, Ofgem has performed a basic review of the cost information at this stage.

1.13. This Initial Transfer Value has been published in the information memorandum in respect of a qualifying project which Ofgem publishes at the Pre-Qualification stage of the tender exercise (the **PQ stage**). The PQ stage results in a long list of qualifying bidders which will be invited to participate in the next stage of the tender process.

### **Indicative Transfer Value**

1.14. The next stage of the cost assessment process has focussed on Ofgem setting the "Indicative Transfer Value". This is the 'estimate' of costs referred to in the Regulations. At this stage, the developer submits updated cost information upon which Ofgem, with the support of its technical and financial consultants, carries out a forensic accounting review and a technical analysis.

1.15. The accounting exercise entails a review of the contracts that the developer has entered into in connection with development and construction of the transmission assets. The current status of the contracts are checked against the details previously provided for the purpose of the Initial Transfer Value, and the appropriateness of the proposed cost allocation between the generation assets (which are excluded from the cost assessment) and the transmission assets is reviewed.

1.16. The technical analysis has focussed on two aspects:

- Reviewing the overall design of the project, including features such as the choice of connection point from the options presented by the system operator and the technology options evaluated. The main purpose is to ensure the project design is functionally appropriate for the connected generation.

- Ensuring the costs for the project are economic and efficient. We do this by comparing cost submissions with both costs from other transmission projects Ofgem has assessed (making allowances for project specific elements) and the cost data held by our advisers. Following identification of any cost anomalies, we then discuss the reasons for these differences with the developer, to inform our consideration of whether costs have been incurred in an economic and efficient manner.

1.17. To date, the ITV has been published at the start of the Invitation to Tender stage of the tender process. The outcome of the ITT stage is identification of the preferred bidder for the qualifying project which, subject to satisfaction of certain matters prescribed in the Regulations, will become the successful bidder and ultimately the OFTO. Qualifying bidders at the ITT stage use the ITV as an assumption underpinning the tender revenue stream which they bid to own and operate the transmission assets.

### **Final Transfer Value**

1.18. Following commencement of the ITT stage, continuing into the preferred bidder stage of the tender process, the cost assessment process has focussed on setting the "Final Transfer Value". This is the 'assessment', referred to in the Regulations, of the costs which ought to have been incurred in connection with development and construction of the transmission assets. The trigger point for commencing this assessment has been when c. 90 – 95% of the project costs have been incurred. At this point, there has been sufficient cost certainty for Ofgem to make a robust assessment of the extent to which costs have been economically and efficiently incurred. It is Ofgem's experience to date that if it were to delay the assessment process until all project spend had been incurred, the process to asset transfer and licence grant would be unnecessarily delayed.

1.19. Ofgem will consider whether it may be appropriate to undertake the cost assessment in stages which reflect the construction stages of a project. However, we also note that even with this process it may be difficult to be able to confirm discrete elements of costs given the interactions between different items and potential ongoing construction work at the time of assessment.

1.20. As with establishing the ITV, Ofgem instructs both accounting and technical consultants to support this stage of the cost assessment process, reviewing all expenditure submitted by the developer. The accounting analysis undertaken to date has focussed on reconciling contract status with invoiced amounts, and examining the developer's bank statements in order to reconcile stated costs with actual payments. The technical review tends to focus on areas where there may have been significant cost increases since Ofgem set the ITV, or where comparative analysis has indicated some costs to be outside their expected ranges.

1.21. Following this assessment exercise, Ofgem sends the developer a draft cost assessment report setting out the assessed transfer value for the transmission assets of the project. This gives the developer the opportunity to correct factual errors and propose redaction of commercially confidential information. The draft report is also sent to the preferred bidder, to allow it to incorporate the assessed transfer value into their estimate of the tender revenue stream payable to the OFTO. This tender revenue stream amount, incorporating the assessed transfer value, is published in the a consultation pursuant to section 8A of the Electricity Act 1989, by which the



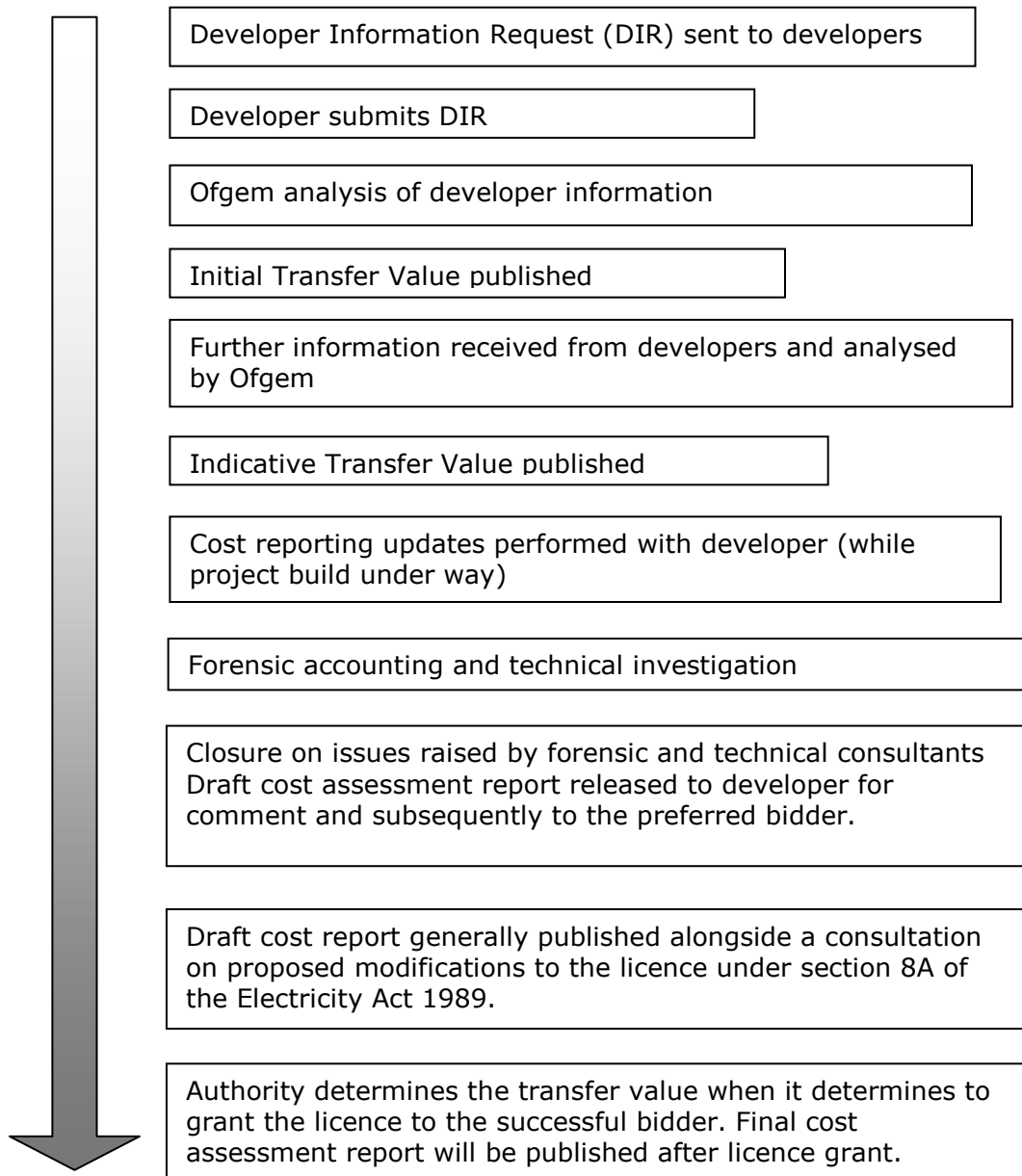
Authority proposes modification to the standard conditions of the Licence on a project specific basis (the **section 8A consultation**).

1.22. The draft cost assessment report is generally published alongside the section 8A licence consultation. The report remains in draft form until conclusion of the section 8A consultation and the Authority has determined to grant an offshore transmission licence to the successful bidder. After licence grant, the final cost assessment report containing the FTV is published on the Ofgem website.

1.23. Ofgem currently finalises the assessment of costs prior to commencement of the section 8A consultation, with the **section 8A TRS** accounting for 100 per cent of the FTV. Where the assessment of costs is to be finalised after commencement of the section 8A consultation, the section 8A TRS would continue to reflect the indicative transfer value. Where the Authority completes the assessment of costs after the section 8A consultation and sufficiently in advance of Licence grant, the post tender revenue adjustment term (contained in amended standard condition E12-A3 of the Generic OFTO Licence) (**PTRA**) may be utilised at Licence grant in order to enable a transfer of assets for 100 per cent of the FTV. If, under exceptional circumstances, this is not possible then Ofgem may determine that deferred consideration would be paid by the OFTO to the developer on conclusion of our cost assessment and we would utilise a PTRA term after Licence grant to reflect the FTV. A provision to use the PTRA term post-licence grant would be included in the amended standard conditions to enable this to happen.

1.24. The following diagram illustrates the types and levels of interaction between Ofgem and the developer during a typical cost assessment process. A table illustrating the generic cost assessment process set against the overall context of the tender exercise is provided at Appendix 1.

Figure 1: Typical generic timeline for cost assessment process



## 2. Cost Assessment Approach

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### Chapter Summary

We set out the approach we use for assessing costs. We have used this approach in assessing the indicative transfer value and final transfer value of projects in transitional tender rounds 1 and 2 and intend to apply this approach for generator build projects going forward into the enduring regime.

### Introduction

2.1. The cost assessment process analyses developer cost submissions across four broad cost categories:

- Capital expenditure
- Development costs
- Interest during construction
- Transaction costs

2.2. In considering these submissions, we first consider whether costs have been appropriately allocated, both in terms of categorisation and their division across generation and transmission for project-wide contracts. The distinction between generation and transmission assets is important, as only the costs relating to transmission assets can be included in the ITV and FTV. Once this has been decided, we then consider whether the costs would be or have been incurred in an economic and efficient manner.

2.3. Our assessment considers costs incurred in connection with the development and construction of offshore transmission assets up to the point at which they are available for use for the transmission of electricity. Under the New Regulations as consulted on<sup>7</sup>, where the developer fails to provide the information by a required date, the Authority may decide not to take into account the information provided after that date when determining the ITV or FTV.

2.4. As well as noting the details in this guidance, we would expect developers to be aware of issues raised in current and future published offshore transmission cost assessment reports. We have made some allowances for unexpected costs in earlier assessments, but we expect developers to put preventative measures in place so as to avoid incurring these costs. Failure to use appropriate mitigating strategies may result in the exclusion of such increased costs from the assessed transfer value.

2.5. We have set out below the description of the cost assessment approach. We also comment on taxation issues at the end of this chapter.

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<sup>7</sup> Ofgem open letter, "Draft Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2012 for consultation", September 2012

## Capital expenditure (Capex)

### What do we mean by capital expenditure?

2.6. The development and construction of offshore transmission assets requires developers to enter into a variety of design, delivery, construction and installation contracts. Typically, the assets that are constructed are offshore platforms, high voltage electrical power systems, export undersea cables, onshore substations and associated apparatus. We define Capex costs as the costs involved in the delivery, construction and installation (including civil works) of offshore transmission assets. We would expect developers to be able to justify why they consider their Capex costs have been incurred in an economic and efficient manner.

### Allocation and assessment of Capex costs

#### *Allocation of Capex costs*

2.7. Where common components are jointly procured (for example cable and cable laying services), Capex costs are split out between the generation and transmission elements of the project. It is important that these costs are apportioned appropriately so that there is no undue cross subsidy of the transmission element by the generation elements, or vice versa.

2.8. We would expect that the apportionment methodology adopted by a developer would be done on an objective and transparent basis, such that it can be independently replicated and verified. In such instances we would expect to be provided with the details underpinning the allocation methodology and metrics that the developer has used to determine what proportion of the costs have been allocated as transmission costs.

2.9. Such a methodology may be based on metrics such as the relative proportion of direct equipment costs (excluding all shared costs) for the transmission assets compared to the project as a whole. We are willing to discuss methodologies and their underlying rationale ahead of any submission by a developer. Once any methodology is agreed, we will cross-check that the allocation of cost accurately reflects the methodology.

2.10. In the event that a developer is unable to provide a metric and has based allocations on an estimate, we may decide to either impose a metric or exclude those costs from the transfer value. However, in such instances we will discuss options with the developer to allow the opportunity for appropriate substantiation of their estimate to be provided.

2.11. On occasions, procurement of generation and transmission assets as a package may lead to manufacturing discounts. In such instances, we would expect the discount to be appropriately allocated between the generation and transmission elements of the project.

## *Assessment of Capex costs*

2.12. This section covers a number of elements which we typically consider in assessing whether the Capex costs have been economically and efficiently incurred:

- Direct costs for transmission equipment
- Approaches to procurement and contract management
- Treatment of contingency
- Spares
- Hedging of exchange rates or commodity prices
- Outstanding costs
- Treatment of cost overruns
- Capitalisation of operating costs
- Cable surveys
- Depreciation of operational projects
- Anticipatory and wider network benefit investment

We deal with each of these in turn below.

### Direct costs for transmission assets

2.13. Comparative cost analysis is carried out by Ofgem, supported by its technical advisors, on unit costs associated with offshore transmission assets, including the direct costs incurred in constructing the transmission assets. We use this to guide our decisions on what cost areas it may be appropriate to investigate further, rather than as an absolute determinant of allowable costs. Where this analysis highlights specific costs as a concern, further analysis is conducted to determine whether these costs would be or were incurred in an economic and efficient manner. As more projects are assessed and our accumulated data becomes more robust, we expect this type of analysis to play an increasingly important role as an evidence base for what constitutes an efficient cost.

### Approaches to procurement and contract management

2.14. Our experience of the cost assessment process to date supports the view that efficient procurement processes can make a significant contribution to controlling cost. In considering the extent to which costs have been economically and efficiently incurred, we consider the efficiency of the procurement and contract management processes. Developers are advised to provide us with appropriate documentation relating to the process that was followed and a detailed justification of the outcome.

2.15. The developers of projects in the transitional tender rounds have adopted a variety of approaches to contract management. Some have managed it through combinations of alliancing, wrapped contracts and utilisation of own resources, while others have utilised the turnkey approach. Ofgem does not have any preference as to the approach taken to contract management, but developers should be able to justify that the costs incurred have been economic and efficient. As an example, we would expect that turnkey contracts may increase project management costs, but there would be a commensurate reduction in projects risks and associated costs that could be included in the FTV. Furthermore, where developers opt for a wrapped or turnkey contract, developer should provide disaggregated cost data if requested to do so, to allow Ofgem to make meaningful comparisons of the different cost categorisations.

2.16. We expect developers to manage their contractors effectively. They should evidence that project management or contract control processes are put in place up front (i.e. before the contract is signed) to minimise cost overruns. Developers should also be able to evidence how their contract and cost control processes are implemented through the project lifespan. To the extent that lack of robust contract cost management leads to increased costs in the development and construction of the transmission assets, it may be reasonable for the Authority to conclude that such cost were not economically and efficiently incurred.

2.17. If contract terms are not met, we would expect the developer to pursue its contractual rights where appropriate, rather than claiming costs through the cost assessment. If a contractual settlement has been reached, we would expect the developer to be able to explain the rationale for the settlement and identify clearly the assessment of damages, the value proposed by the contractor and the settlement reached, including details of the negotiations and justification of the settlement sum. If contractual settlement terms apply across both generation and transmission elements, we would expect the developer to be able to justify the apportionment methodology used. Any sums recovered through such claims may be reflected in an adjustment to the final transfer value. If claims are not due for settlement at an appropriate point in the cost assessment process (e.g. prior to the section 8A consultation), we would consider an appropriate adjustment to the final transfer value.

#### Treatment of contingency

2.18. For projects still in the design or construction phase, developers' cost data forecasts for the initial transfer value and/or the ITV have tended to include contingency amounts to deal with future uncertainty over the actual cost and timing of construction. We would expect a developer to have in place a methodology for establishing the contingency amount and be in a position to explain this to us. It is an assumption of the cost assessment process under the Regulations that, at the time of setting the FTV, the transmission assets are available for use for the transmission of electricity and all associated costs should be either settled or agreed with suppliers. If there are outstanding costs or costs in dispute, we would expect the developer to provide a firm estimate of these costs. Therefore, as there would be no uncertain costs remaining, it is therefore anticipated that there will be no contingency amount remaining for inclusion in the FTV.

#### Spares

2.19. Where spares for the transmission assets are to be transferred to the OFTO then we will include the economic and efficient costs of these assets as part of the FTV. Typically spares that have transferred have been accounted for as part of the original contract prices and relate to the assets that are installed, for example, cable lengths, joints and substation spares.

#### Hedging of exchange rates or commodity prices

2.20. We recognise that developers will adopt different approaches for paying contracts in foreign currency or for agreeing volatile commodity prices; for example, the developer may hedge by fixing the forward exchange rate or commodity price in advance. The payment of their contracts should then be based on such fixed rates.

2.21. Hedging can avoid the developer incurring higher costs than anticipated and ultimately protect consumers against the cost increases that would otherwise occur. If the developer does not hedge then the exchange rate or commodity price must be based on the day rates applicable when payments were made under the contract.

2.22. We ask developers to outline their approach to hedging at the outset of a project and expect them to provide supporting documentation as necessary. Where developers are unable or unwilling to provide the relevant calculations then we will determine the rate based on the forward rates applicable at the time that the contract was signed.

2.23. Developers should advise Ofgem at the outset of the project whether or not they intend to hedge items such as foreign currency and individual commodity prices. This decision by the developer will be applied throughout the duration of the project.

### Outstanding costs

2.24. When the cost assessment process is completed, cash payments made by the developer may not equal the FTV because there may be a number of outstanding non-cash items such as retentions, accrued invoices and provisions for work that is yet to be completed. If the level is significant (e.g. greater than 5% of the transmission assets), we may delay our final assessment until a lower and more accurate figure is available. Where these non-cash items have been considered to be reasonable and do not amount to a significant percentage of the FTV they will be treated as a firm commitment by the developer to allow the assessment to be completed.

### Treatment of cost overruns

2.25. The Capex costs that developers submit for consideration during the cost assessment process may vary from the ITV estimate as the construction progresses. For example, a number of projects have experienced construction and cost overruns during the installation of the undersea export cable. Unforeseen events may also lead to cost overruns.

2.26. When significant construction cost overruns arise we expect developers to discuss these matters with us in a timely manner. In such circumstances, we may undertake an investigation, supported by our advisers, to inform our decision on whether the costs have been economically and efficiently incurred and should be included in the FTV. We will consider each case on a project specific basis as the issues that arise may not be common across projects. To inform our decision making, we may instruct our advisers to liaise closely with the developer to assist us in understanding, amongst other things, the decisions and mitigating actions taken.

2.27. In determining whether the costs should be included in the FTV we will take into consideration all information that is provided, including any further evidence from the developer. Under the New Regulations, where the developer has failed to provide the information by a required date, the Authority may decide not to take into account the information provided after that date when determining the ITV or FTV.

2.28. To ensure conclusion of the cost assessment process in a timely manner, Developers are advised to provide a detailed explanation of cost overruns, including for example, a chronological order of events, solutions considered, the preferred option, the chosen solution(s) and the rationale. Without this information we may be

unable to determine that the costs have been economically and efficiently incurred. This will invariably cause a delay to the cost assessment process and may lead to exclusion of unsubstantiated cost overruns from the FTV.

2.29. We would also expect the developer not to delay progress on the project while waiting for our view on whether unavoidable costs may or may not be included in the transfer value.

#### Capitalisation of operating costs

2.30. We do not allow the capitalisation of operating costs, as this is not within the scope of the cost of developing and constructing the transmission assets. Examples of these costs that would be excluded include set up costs relating to ongoing operational costs (e.g. maintenance) that may have been capitalised.

#### Cable surveys

2.31. The efficient and timely installation of export cables is dependent on effective pre installation surveys undertaken by the developer or its contractor. A number of projects have experienced cost overruns related to the cable installation process. The reasons for such cost overruns are numerous and relate to, amongst other things, technical difficulties, bad weather and waiting on weather costs. However, an emerging theme in such cases is the extent and quality of seabed surveys undertaken by the developer or its contractor prior to the cable installation process. We understand that this information is relied upon in determining which cable laying equipment is used during the installation process. If the actual seabed conditions are not as expected in the survey, this can lead to significant cost overruns, which a developer may seek to include in the FTV.

2.32. We will examine cable installation cost overruns closely, with support from our advisors. A key issue in determining whether these costs are permitted is to understand the steps and actions taken by developers to mitigate the likelihood of cost overruns. If a developer chooses not to undertake detailed seabed surveys, this is a commercial risk that the project developer is accepting and therefore is liable for the costs arising from such a commercial decision (subject to the project specific circumstances).

2.33. There is currently variation in the approaches and standards used by generators when commissioning geophysical studies, geotechnical investigations and cable route assessments. We would welcome industry led development of minimum standards for these areas<sup>8</sup> to help address the current situation. This should create greater consistency across the industry and improve standards which may reduce the level of risk priced in by bidders. This could also reduce the risk of project delays resulting from insufficient information on cable burial conditions.

#### Depreciation of operational projects

2.34. There are some projects that have been operational for a period of time prior to the assets being transferred to the OFTO. We have considered depreciation in relation to such projects.

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<sup>8</sup> See "Offshore Electricity Transmission: Updated proposals for the enduring regime", Ofgem 72/12, May 2012



2.35. The design life indicated by manufacturers for offshore transmission assets is greater than 20 years. Therefore, at this stage based on the assumption that the assets are capable of satisfying the 20 year life applicable to the revenue entitlement set out in the OFTO licence, and in the absence of evidence to suggest they will not do so, we consider it reasonable not to apply depreciation to the assets. However we will keep this under review and consider depreciation on a case by case basis.

### Anticipatory and wider network benefit investment

2.36. The projects that have been through the cost assessment process to date have been simple radial (point-to-point) connections. However, some future projects may have coordinated grid connections, which involve additional capability within their transmission asset design to connect future offshore generation phases or provide wider network benefits. For further information in relation to such investments, please see the most recent consultation<sup>9</sup> on a proposed framework to enable coordination of offshore transmission.

2.37. We recognise developers are seeking guidance on how the costs of infrastructure involving this kind of investment will be treated under the cost assessment process. We are in the process of consulting on the regulatory treatment of such transmission infrastructure and intend to update this section of the guidance in future to reflect the outcome of that process.

## Development costs

### **What do we mean by development costs?**

2.38. Before construction of offshore transmission assets take place, the developer would usually undertake a front-end engineering design process, followed by a detailed process to obtain the relevant consents and permissions that are required for constructing assets offshore and onshore. For example, detailed surveys of the seabed will be required to ensure that the assets avoid existing apparatus or seabed wreckage, and a detailed environmental impact assessment will be required to satisfy statutory requirements. The onshore cable route for the transmission assets will require detailed planning to avoid existing assets (pipes, cables, roads and crossings), to take account of land conditions and in some cases special measures may be required to satisfy local planning arrangements. Obtaining the relevant consents will require project management services and the use of specialist equipment and contractors. We generally refer to these costs as development costs.

2.39. When the project enters the construction phase, project management activities will continue. The approach to managing the construction and day to day control of contractors has varied across developers; for example, some have project managed via in house resources and others have outsourced project management or contracted out the supply and installation through a turnkey contract.

2.40. Through the cost assessment process we will review the developer's historical and ongoing development costs. Set out below is an overview of the analysis that we have undertaken to date to ensure that the development costs included in the cost

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<sup>9</sup> "Consultation on a proposed framework to enable co-ordination of offshore transmission", Ofgem 164/12, 7 December 2012

assessment processes are allocated appropriately, and have been incurred economically and efficiently.

## **Allocation and assessment of development costs**

### *Allocation of development costs*

2.41. The development costs provided by developers may not be easily attributable to either the generation or transmission construction activities as they relate to the process of developing and constructing the offshore project as a whole (generation and transmission assets). We will therefore focus our analysis on ensuring the allocation proposed by the developer is appropriate and that we have clarity on the reasons why costs may have changed during the cost assessment process. Given the wide range of different costs submitted across projects, it is important that these costs are allocated appropriately. Where necessary, we will instruct developers to reallocate costs that have been incorrectly classified.

2.42. In a number of cases, particularly for historical development costs like seabed surveys which cover the whole of the project, developers may be unable to provide a supporting metric for the transmission elements and consequently base allocations on unsubstantiated estimates. Whilst we recognise that at the time of such cost being incurred the developer may not have kept a detailed record of how costs were allocated, we would expect the developer to provide a rationale to support the allocation proposed, especially if the costs in question are predominantly generation related. It will be for the developer to provide this information when requested. If a developer is unable to do so, we will either adopt a general cost allocation rate used elsewhere on the project or disallow the cost in question.

2.43. Where projects undergo changes in ownership, the total acquisition cost paid by the purchaser may include aspects related to both generation and transmission. Only the costs which relate to the development and/or construction of the transmission assets (and their associated financing costs which are assumed to be included in the acquisition cost) may be included in the FTV. This may require the developer to use an appropriate allocation metric to split such costs between transmission and generation. We will not expect to see any profit, premium or goodwill which forms part of the acquisition cost in this split cost, as we consider such elements reflect the value of the generation capacity rather than the transmission component.

### *Assessment of development costs*

2.44. In calculating the FTV we will review whether development costs are broadly in line with the range provided by our advisers. Where these differ markedly we will undertake additional analysis to ensure that only appropriate development costs are allowed.

## **Interest during construction (IDC)**

### **What do we mean by IDC?**

2.45. IDC refers to the financing costs incurred by a developer in the period of developing and constructing the transmission assets. Industry commonly recognises

this financing cost as part of capital expenditure. We consider that for the purposes of the cost assessment IDC is the rate of interest that an efficient transmission owner ought to incur during the development and construction phase. This may not be the same rate that a developer considers it has incurred.

## **Allocation and assessment of interest during construction**

### *Allocation of IDC*

2.46. IDC is only applicable to the cash flow that represents the capital expenditure and development costs associated with the transmission assets. Where amendments are made to the developer's submitted cost information from either the re-allocation of costs from the generation build part of the project or from efficiency assessment of the costs, this will be reflected in the cash flow. This ensures that the IDC calculated for the transmission assets relates to the economic and efficient cost of developing and constructing the assets.

2.47. For staged projects, IDC ceases for each stage of the project when the transmission assets built to that point are available for use for the transmission of electricity to the onshore network.

2.48. IDC is only allowed on the actual cash flow which represents when payments are made against the contracts for developing and constructing the transmission assets. We do not apply IDC to accounting data as it does not represent the actual cash cost to the developer and may include non cash elements such as retentions, accruals for work completed but not invoiced, unpaid invoices, any set-off amounts deducted and provisions.

### *Assessment of IDC*

2.49. The aim of providing IDC to developers is to recompense them for the economic and efficient costs of financing the development and construction of the transmission assets. The test of being 'economic and efficient' applies in respect of both the rate and the period. The interest rate is only applied up until the date transmission asset construction ceases. Should the programme for expenditure contain inefficient costs or inefficient delays it will not be applied to those costs or during those delays. The issues of IDC rate and duration are set out and discussed below.

### Interest rate applied to the project

2.50. We calculate IDC on a pre-tax nominal basis. The use of a pre-tax rate ensures that developers receive a rate that enables them to meet the expected level of tax in the chargeable gain arising from the inclusion of financing costs in the assessed costs.

2.51. The level of IDC should reflect the average rate that the developer (or in the case of corporate supplied funds, its corporate parent) has incurred on the funds provided. Generally the funds will have come from providers of both equity and debt. The rate we will allow is the rate that an efficient and economic transmission company engaged in this type of activity has or ought to have incurred. It is not necessarily

the rate that has been incurred by a developer on the generation element of the project.

2.52. We expect the developer to be able to substantiate their claim with relevant documentation; for example, evidence of the target discount rate approved for such projects, or the expected return if lower. Such rates should include the quantum and rate from lower cost debt funding where obtainable. If we consider the rate proposed by the developer to be excessive relative to its funding sources, we will assess the rate that should apply.

2.53. We most recently consulted<sup>10</sup> in July 2011 on an appropriate rate to allow offshore wind farm developers for the cost of financing transmission asset construction. The proposals in that consultation were informed by the findings of a report commissioned from Grant Thornton<sup>11</sup> (GT). The outcome of the consultation was to:

- retain a cap of 10.8 per cent on a pre-tax nominal basis for the IDC rate to apply in respect of expenditure up until 30 November 2011; and
- apply a cap of 8.5 per cent on a pre-tax nominal basis for the IDC rate to apply in respect of expenditure from 1 December 2011 (inclusive).

2.54. For the avoidance of doubt, all projects, regardless of tender round, will have IDC capped at 10.8 per cent up until 30 November 2011. From 1 December 2011 all projects regardless of tender round will have IDC capped at 8.5 per cent. If a project spans the two periods, expenditure before 1 December 2011 will be subject to the 10.8 per cent cap and subsequent expenditure will be subject to the 8.5 per cent cap.

2.55. We remain committed to a periodic review of the cap and its methodology of calculation. The periodic updates will be performed when we feel that market conditions make it appropriate in order to ensure the IDC cap is fair and reflective of current conditions.

### Duration of the financing

2.56. Each transitional project developer will have a project specific commissioning programme for the assets that it is constructing. It is important to differentiate between commissioning activities that are associated with the transmission assets and the wind farm generation assets. Before generation assets can be fully commissioned, the commissioning of the transmission assets will need to have reached a stage that permits safe energisation of the offshore transmission system and provide an offshore transmission system that is ready to transport electricity on a commercial basis (even if not evidenced at full load). There may be occasions where transmission asset and generation asset commissioning activities occur in parallel.

2.57. With these distinctions in mind, we have determined that IDC should be allowed up to the point where the transmission assets are available for use for the transmission of electricity. Where projects are phased, IDC will cease at the

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<sup>10</sup> The consultation document "Offshore transmission: Interest during construction for transitional tender rounds" (July 2011) and the non-confidential responses received are available on the Ofgem website

<sup>11</sup> GT are our financial advisers for the second transitional round (TR2). Their report "Interest During Construction for TR2A offshore transmission assets" (March 2011) is available on Ofgem's website.

completion of each individual phase in accordance with the same principles. If we consider there is evidence of inefficient and uneconomic delays during the construction or commissioning programme for the transmission assets, the period of applicability may be curtailed to reflect this.

2.58. Where projects have been purchased from other developers, we consider that the IDC should commence on the date of the acquisition. IDC is not applied to the period over which the previous developer incurred costs because the purchase cost should already reflect suitable remuneration for financing costs over that earlier development period.

## **Transaction costs**

### **What do we mean by transaction costs?**

2.59. Transaction costs relate to costs that a developer has incurred during and as a consequence of the tender process and are generally reviewed at the FTV stage of the cost assessment process. The costs in question relate to tender fees payable to Ofgem and a developer's internal and external costs.

### **Allocation and assessment of transaction costs**

#### *Allocation of transaction costs*

##### Tender Fees

2.60. Tender fees are the fees payable by the developer to Ofgem under the Regulations<sup>12</sup> for participating in the tender process. They cover Ofgem's costs in conducting the cost assessment process and are recoverable as a transaction cost on the basis that they clearly relate to transmission activities.

##### Developer's internal and external costs

2.61. To support their activities in the tender process developers may have had to utilise a range of resources or services including, for example, the production of legal documents or provision of financial advice to support the cost assessment process. The use of external and internal resources by developers to support the tender process in this way is consistent with the costs incurred in the development and construction of transmission assets that are being prepared for sale. We would seek to ensure that the developer's internal and external costs do not include activities that relate to generation activities.

#### *Assessment of transaction costs*

##### Tender Fees

2.62. The tender fees payable by a developer under the Regulations are calculated by reference to the cost recovery methodology, which is published by the Authority, on Ofgem's website, in connection with a particular tender round.

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<sup>12</sup> Regulation 5 (Payment of costs)

2.63. Developers have been required to pay the Authority an administration fee in connection with the transitional tender process. We would also expect developers participating in the enduring tender process to pay an administration fee. The Regulations<sup>13</sup> also require the developer to provide security in relation to the Authority's tender costs as calculated in accordance with the Authority's cost recovery methodology.

#### Developer's internal and external costs

2.64. We require developers to submit evidence to support the level of external and internal costs that they have submitted. These costs may be reviewed as part of the forensic accounting investigation.

2.65. For internal costs, developers are required to submit the names of personnel involved, the activities that they worked on, their day rates and the number of days spent on tender activities versus the number of days spent on the total project (non tender related activities) in order to substantiate any claims for such costs. Any mark-up or margin on such internal resources would not be considered economically and efficiently incurred costs.

2.66. There may also be internal specialised staff charged directly to the project for undertaking work directly related to the tender process, for example this could include engineers, accountants, etc. Where this is the case we would similarly require the appropriate evidence of this.

## **Taxation**

### **Value added tax (VAT)**

2.67. HMRC have provided guidance in relation to whether the transfer of transmission assets can be viewed as a transfer of a business as a going concern (TOGC). HMRC have indicated that they would expect (subject to exceptional circumstances) that any transmission assets that are currently operational or fully constructed up to the point of operation at transfer would meet the TOGC conditions. Should any circumstances occur in which the transfer does not meet TOGC conditions and therefore is not free of VAT (e.g. as a result of further discussions between the developer, preferred bidder and HMRC), then the parties should seek arrangements with HMRC to minimise the working capital consequences of such a situation. This will have no impact on the assessment of costs or assessed transfer value.

### **Capital allowances**

2.68. Each transfer of assets from a developer to an OFTO under a transitional or generator build tender exercise is for a set of assets on an as-built basis, based on actual expenditure. We therefore assume for the cost assessment process that the purchaser will obtain the full benefit of all available capital allowances and that the transfer value should be reduced where such benefits do not fully pass across.

2.69. The ITV is calculated on the basis that the purchaser obtains the full benefit of all available capital allowances. Where benefits do not fully pass across and any such

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<sup>13</sup> Regulation 7 (Developer's payment and security)

tax benefit is retained by the developer (e.g. as a result of agreement reached between the developer and preferred bidder), which results in the purchaser not being able to obtain the full benefit of all available capital allowances, we will reduce the assessment of costs. This reduction will be for an amount that reflects the value of the tax benefit retained by the developer.

# Appendix 1: Cost Assessment & Tender Processes in parallel

Tender Process	Cost Assessment Process
<p><b>Qualifying Projects and Tender Entry Conditions</b> Developer provides Ofgem with information on Qualifying Project. The project must meet certain qualification conditions stated in the Regulations in order to qualify for a tender exercise. The developer must then satisfy Ofgem that it has met certain tender entry conditions in respect of the qualifying project.</p> <p><b>Tender Commencement</b> Ofgem publishes a Tender Commencement notice including a list of projects that have qualified for tender.</p>	<p><b>First view on costs – Initial Transfer Value</b> Ofgem request a 'first view' from developers of how much their offshore transmission assets will cost to build. Ofgem sends developers a pro forma 'costs template' which requires them to break down their costs into certain categories, namely: capital expenditure, development costs, interest during construction and transaction costs. Following this, Ofgem publish a Preliminary Information Memorandum (PIM) on the project, which includes an initial transfer value for the project. Ofgem does not substantively analyse these figures at this stage.</p>
<p><b>Pre-Qualification</b> Ofgem publishes a Pre-Qualification (PQ) document which sets out a range of requirements bidders (potential OFTOs) must show they meet in order to participate in the next stage of the bidding process. After evaluation of PQ submissions Ofgem publish a long list of bidders who have qualified to proceed to the next stage. Ofgem also provides feedback to bidders at this stage.</p> <p><b>Qualification to Tender</b> Ofgem issue a Qualification to Tender (QTT) document to the long list of bidders. This outlines the requirements bidders must meet to progress to the next stage. Qualifying bidders will make a QTT submission to Ofgem, which is then evaluated. Subsequent to this Ofgem publish a shortlist of bidders who have qualified to the next stage.</p> <p><b>Invitation to Tender</b> Ofgem publish an Invitation to Tender (ITT) document to the shortlist of bidders. This outlines the final criteria Ofgem will be looking at when selecting a preferred bidder. Qualifying bidders then submit their bids. After evaluating the bids, Ofgem announces a Preferred Bidder (PB) who then moves to the next stage.</p>	<p><b>Indicative Transfer Value (A cost estimate)</b> In advance of the Invitation To Tender (ITT) stage of the tender process, Ofgem and its consultants carry out a forensic accounting review and a technical analysis of the cost information submitted by developers. This analysis, in combination with the accounting analysis findings, is used to establish the ITV of the project. The ITV is released at or before the start of the ITT stage of the tender process. For transitional (but not enduring) tenders, developers have been provided comfort (subject to certain conditions) that the Final Transfer Value will be at least 75% of the ITV</p>



**Preferred Bidder**

Based on the Final Transfer Value from the ex post cost assessment, the preferred bidders 20 year Tender Revenue Stream is incorporated into a 20 year transmission licence. An Offshore transmission licence modified to be specific to the OFTO is then drafted. A 28 day Section 8(A) consultation follows, providing an opportunity for other parties, particularly unsuccessful Qualifying Bidders, to see the TRS value bid by the Preferred Bidder.

**Successful Bidder and Licence Grant**

This stage starts with a notice from Ofgem of determination to grant a licence to the Successful Bidder. After a 'standstill period', final form commercial documents are transferred and the OFTO licence granted and published. This is followed by Financial Close and Asset Transfer.

**Final Transfer Value (A cost assessment)**

During the Preferred Bidder stage of the tender process, Ofgem finalises the cost assessment by undertaking an assessment of the project based on updated information from developers. As with establishing the ITV, Ofgem employs both accounting and technical consultants to carry out a review of all contract expenditure to inform Ofgem's assessment of costs.

Following the assessment, Ofgem sends the developer (and subsequently the preferred bidder) a draft assessment report incorporating a FTV for the transmission assets of the project.

After allowing an appropriate time for review and comment (in practice, normally two weeks), Ofgem may publish the final cost assessment report, which may include redactions to preserve commercial confidentiality, with the section 8A notice.

## Appendix 2: Glossary

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### A

#### Anticipatory investment (AI)

Investment that goes beyond the needs of immediate generation, reflecting the needs created by a likely future generation project or projects

#### Authority

The Gas and Electricity Markets Authority

### D

#### DECC

Department of Energy and Climate Change

#### Developer

The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010 define 'Developer' as 'any person within section 6D(2)(a) of the Electricity Act 1989' (the 1989 Act). Section 6D(2)(a) of the 1989 Act defines such person as 'the person who made the connection request for the purposes of which the tender exercise has been, is being or is to be, held'. In practice, such person is also the entity responsible for the construction of the generation assets and, under Generator Build, the transmission assets.

### E

#### Electricity Act

The Electricity Act 1989

#### Enduring regime

The regulatory regime for future offshore transmission licensing

### G

#### GB

Great Britain

### O

#### Ofgem

Office of Gas and Electricity Markets

#### OFTO

Offshore Transmission Owner

#### OFTO licence

The licence awarded following a tender exercise, allowing an OFTO to own and operate the offshore transmission assets. The licence sets out an OFTO's rights and obligations as the offshore transmission asset owner.

### P

#### Phase

A grouping of transmission assets to be built out over a period of time, where the grouping is defined by certainty of build out (for example in relation to a Final Investment Decision and/or key contractual commitments). A phase may include stages.

## **S**

### **Stage**

Transmission assets built out incrementally in a discrete group within a phase

## **T**

### **Tender regulations**

Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010 (or Draft Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2012). The tender regulations set out the legal framework and powers for the Gas and Electricity Markets Authority to run a competitive tender process for both transitional and future offshore projects.

### **Tender Revenue Stream (TRS)**

The payment an OFTO receives over its revenue to term.

### **Transmission Network Use of System (TNUoS)**

Charging arrangements that reflect the cost of installing, operating and maintaining the transmission system

### **Transmission owner (TO)**

An owner of a high-voltage transmission network or asset.

### **Transmission assets**

Transmission assets are defined in Paragraph 1(3)(a) of Schedule 2A to the Electricity Act 1989 as, 'the transmission system in respect of which the offshore transmission licence is (or is to be) granted or anything which forms part of that system'. The transmission system is expected to include subsea export cables, onshore export cables, onshore and offshore substation, and any other assets, consents, property arrangements or permits required by an incoming OFTO in order for it to fulfil its obligations as a transmission operator.

### **Transitional regime**

The transitional offshore regulatory regime. Transitional projects were required to meet the qualifying project requirements set out in the Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010 by 31 March 2012.