



**Greater Gabbard Offshore Transmission
Assets**

Ex Post Financial Cost Review

22 November 2013

Ernst & Young LLP

Private and confidential

The Office of the Gas and Electricity Markets Authority
9 Millbank
London
SW1P 3GE

22 November 2013

Dear Sir

Greater Gabbard Offshore Transmission Assets – Ex Post Financial Cost Review**Introduction**

Further to the Contract Task Order dated 28 October 2011 (Task Order Number 62A/039) we have undertaken an Ex Post Financial Cost Review (“the Review”) in respect of the Greater Gabbard Offshore Transmission Assets (“the Greater Gabbard Transmission Assets”).

Work performed

In undertaking the Review our work comprised the review procedures as prescribed by The Office of the Gas and Electricity Markets Authority (“Ofgem”) which are set out in Appendix A to this report (“the Review Procedures”). Details of the results from the Review Procedures are set out in the body of this report.

Purpose of our report and restrictions on its use

This report has been prepared solely for the benefit of Ofgem.

We understand that Ofgem will disclose this report to the developer of the Greater Gabbard Transmission Assets and to the preferred bidder for the Greater Gabbard Transmission Assets. We consent to that disclosure on the basis that Ernst & Young LLP assumes no responsibility to any user of this report other than Ofgem and any other person that chooses to rely on it does so entirely at their own risk.

Statement of independence

Ernst & Young has been appointed by SSE plc and RWE AG and their subsidiary undertakings in the past in relation to a number of matters. In order to maintain our independence in undertaking the Review, confidentiality and ring fencing procedures were put in place. We therefore do not consider that our independence is impaired in relation to the Review.

Yours faithfully

Ernst & Young LLP

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1. Introduction and executive summary

1.1 Introduction

1.1.1 Background

Under the regulatory regime governing the ownership and operation of offshore electricity transmission, offshore transmission assets constructed by a developer/generator are being sold by the developer/generator and purchased by an Offshore Transmission Owner via a competitive tender process run by Ofgem.

As part of the tender process Ofgem is undertaking an exercise to calculate the economic and efficient costs of construction of the offshore transmission assets (“the Estimated Transfer Value”). The Estimated Transfer Value is the summation of the estimated costs to complete and commission the offshore transmission assets including capital costs, interest costs, development costs and costs associated with the tender process. Potential acquirers of the offshore transmission assets are required to use the Estimated Transfer Value as the basis for their bids.

In July 2009 Ofgem and RBC Capital Markets issued a preliminary information memorandum (“the PIM”) in relation to each offshore transmission asset tendered under Transitional Tender Round 1. Each PIM contained an initial view of the Estimated Transfer Value. This initial view was updated by Ofgem following the receipt of additional information from the developers and the Estimated Transfer Value was set out in the First Transitional Tender Information Memorandum (“the FTTIM”) issued by Ofgem and RBC Capital Markets in September 2009.

Following completion of the construction of each offshore transmission asset Ofgem is undertaking a final assessment of the total costs (“the Final Transfer Value”). The developers have provided further information to enable Ofgem to undertake this assessment.

As part of the tender process Ofgem requires independent verification of the costs incurred by the developers, which are to be taken into account in the assessment of the Final Transfer Value.

1.1.2 Project value

The total estimated value of the Greater Gabbard Transmission Assets (also referred to as “total project value”) is £323.7 million including financing costs and transaction costs. Changes in the total project value including financing costs and transaction costs over time can be summarised as follows:

- ▶ Estimated Transfer Value per the PIM: £343.7million ([REDACTED]).
- ▶ Updated Estimated Transfer Value per the FTTIM: £316.6 million ([REDACTED]).
- ▶ The estimate of total project value provided in a spreadsheet “*Cash Flow Actual OFTO spend to June 2012_OFGEM v28 Nov.xlsx*” (“the Cash Flow Schedule”)¹: £323.7 million (including financing costs of £42.4 million and transaction costs of £2.0 million).

1.1.3 Content of this report

To substantiate the costs incurred by the developer which are to be included in the Final Transfer Value we have been instructed by Ofgem to undertake certain Review Procedures. This report sets out the Review Procedures that have been undertaken and their results in the following sections:

¹ The Cash Flow Schedule is set out at Appendix B as provided by the developer.

- ▶ This section gives an overview of the relevant offshore transmission assets, an outline of the Review Procedures that we have performed and an executive summary of our findings.
- ▶ Section 2 summarises the way in which the developer has recorded the costs that it has incurred, a detailed description of the Review Procedures performed and their results.
- ▶ Section 3 sets out changes in the costs included in the Estimated Transfer Value between the PIM and the FTTIM and between the FTTIM and the Cash Flow Schedule.
- ▶ Section 4 summarises the Cash Flow Schedule in total and then by the principal asset categories and identifies amounts subject to contract which have not yet been paid by the developer (accrued amounts) and amounts not yet subject to contract or variation order (estimated amounts).

The report contains a number of appendices (appendix A to appendix F) which include supporting information, including source data provided by the developer.²

1.2 The Greater Gabbard Transmission Assets

1.2.1 Location

The Greater Gabbard Transmission Assets connect the Greater Gabbard offshore wind farm assets (“the Greater Gabbard Wind Farm Assets”) located off the Suffolk Coast in South East England to the 132kV substation at Leiston, Suffolk. The onshore transmission licensee is National Grid Electricity Transmission.

1.2.2 History

The Greater Gabbard Wind Farm Assets and the Greater Gabbard Transmission Assets are owned by Greater Gabbard Offshore Winds Limited (“the Developer”). Greater Gabbard Offshore Winds Limited is owned by SSE Renewables Holdings (UK) Limited (50%) and RWE Npower Renewables Limited (50%). The ultimate parent company of SSE Renewables Holdings (UK) Limited is Scottish and Southern Energy plc, a company registered in Scotland, and the ultimate parent company of RWE Npower Renewables Limited is RWE AG, a company registered in Germany.

Key events in the history of the Greater Gabbard Wind Farm Assets and the Greater Gabbard Transmission Assets are as follows:

- ▶ 2003: Greater Gabbard Offshore Winds Limited was incorporated under the then name of DWSCO 2481 Limited. The share capital was owned by Fluor International Limited (50%) and Airtricity Holdings (UK) Limited (50%). Fluor International Limited is a wholly owned subsidiary of Fluor Corporation which is registered in the United States. Airtricity Holdings (UK) Limited (50%) was a wholly owned subsidiary of Airtricity Holdings Limited which was registered in Ireland.
- ▶ 2004: DWSCO 2481 Limited was renamed Greater Gabbard Offshore Winds Limited.
- ▶ 2007: Scottish and Southern Energy plc (“SSE plc”) acquired the entire share capital of Airtricity Holdings Limited (the parent company of Airtricity Holdings (UK) Limited).
- ▶ 2008 April: Construction of the Greater Gabbard Transmission Assets and Greater Gabbard Wind Farm Assets commenced. Airtricity Holdings (UK) Limited acquired the remaining 50% share capital of Greater Gabbard Offshore Winds Limited owned by Fluor International Limited.
- ▶ 2008 November: RWE Npower Renewables Limited acquired 50% of the share capital of Greater Gabbard Offshore Winds Limited from Airtricity Holdings (UK) Limited.

² Data provided by the developer is separately identified in the appendices to this report.

- ▶ 2009: Airtricity Holdings (UK) Limited was renamed SSE Renewables Holdings (UK) Limited.
- ▶ 2010: Commissioning of the Greater Gabbard Wind Farm Assets and Greater Gabbard Transmission Assets commenced and one third of the total capacity of the Greater Gabbard transmission cables was energised in September 2010³.
- ▶ 2011: A further one third of the total capacity of the Greater Gabbard transmission cables was energised in April 2011.
- ▶ 2012: Commissioning of Greater Gabbard Transmission Assets and Greater Gabbard Wind Farm Assets was completed. The final third of the total capacity of the Greater Gabbard transmission cables was energised in May 2012.

1.2.3 Project assets

The Greater Gabbard Transmission Assets, as set out in the PIM, comprise:

- ▶ Two offshore substation platforms.
- ▶ Three subsea cables each 45.5 km in length and one subsea cable 16 km in length.
- ▶ Three onshore cables each 0.59 km in length.
- ▶ One subsea interconnector cable between the offshore substation platforms.
- ▶ An onshore substation.
- ▶ Spares.

1.3 Scope of the Review Procedures

1.3.1 Principles

The Review Procedures have been performed on the cash expenditure that has been incurred by the Developer in constructing the Greater Gabbard Transmission Assets, in accordance with the cost assessment principles determined by Ofgem.

Taxation and non-cash items, including depreciation, are not included in the Cash Flow Schedule and are therefore not within the scope of the Review Procedures.

Financing costs (also referred to as “interest during construction”) and transaction costs are included within this report in the calculation of total project value. The calculation of financing costs and transaction costs has been subject to a separate review by Ofgem and is not within the scope of the Review Procedures.

1.3.2 Procedures

The Review Procedures that we have undertaken are set out in Appendix A to this report.

The objective of the Review Procedures is to substantiate the costs included by the Developer in the Cash Flow Schedule by tracing a sample of costs to the Developer’s accounting systems and to source documentation e.g. purchase invoices and bank statements.

The Review Procedures do not constitute an assessment as to whether the costs of construction were incurred in an economic and efficient manner. As a generality Ofgem’s

³ We understand that one of three circuits that comprise the Greater Gabbard wind farm was energised in September 2010. The circuit represented 167 MW which is one third of the total capacity of the Greater Gabbard wind farm of 501 MW. (one third = 167/501).

expectation is that developers will procure in an economic and efficient manner in order to seek to obtain a return on investment in a competitive generation market.

1.3.3 Information

As set out in section 1.2.2, the Developer is owned by SSE Renewables Holdings (UK) Limited (SSE) and RWE Npower Renewables Limited (RWE). We understand that the accounting records for the Developer are maintained by SSE. Furthermore in conducting the Review Procedures we were provided with information and explanations by SSE employees.

Based on the Cash Flow Schedule prepared by SSE on behalf of the Developer, Ofgem has selected a sample of costs upon which we have undertaken the Review Procedures.

In order to perform the Review Procedures we visited the premises of SSE and were provided with information and explanations as described in sections 2 to 4 of this report.

Our work is based on the Cash Flow Schedule which was prepared as at 30 June 2012. We have not updated our report for other events or circumstances that are not reflected in the Cash Flow Schedule or that have occurred since it was prepared by the Developer.

1.4 Executive summary

The costs included in relation to the construction of the Greater Gabbard Transmission Assets, as set out in the Cash Flow Schedule, can be summarised as follows:

Cost category	Directly incurred cost	Indirectly incurred cost	Total cost	Sample tested
Offshore substation	██████████	-	██████████	██████████
Offshore cable supply and installation	██████████	-	██████████	██████████
Land cable	██████████	-	██████████	██████████
Onshore Substation	██████████	-	██████████	██████████
Connection costs	██████████	-	██████████	██████████
Development	██████████	██████████	██████████	██████████
Total direct and indirect costs	██████████	██████████	██████████	██████████ ⁴
Transaction costs	██████████	██████████	██████████	-
Interest during construction	██████████	-	██████████	-
Total project value	██████████	██████████	██████████	██████████

We performed the Review Procedures set out in Appendix A on a sample of the costs incurred by the Developer, as selected by Ofgem. The sample represents 69% of the total direct and indirect costs that could be checked to supporting documentation.

The following exceptions were noted in the results of the Review Procedures:

- ▶ The Cash Flow Schedule includes accrued amounts of ██████████ in respect of the Fluor contract which, although agreed to contract or variation orders, have not been invoiced as at 30 June 2012 and have not yet therefore been agreed to purchase invoices, accounting ledgers or the Developer's bank statements.

⁴ ██████████ is the sum of the sample tested relating to directly incurred costs (██████████) and indirectly incurred costs (██████████).

- ▶ The Cash Flow Schedule includes an amount of [REDACTED] in respect of Marsh Insurance however, as the Developer has been unable to provide purchase invoices and bank statements for three transactions dating to 2007, we have been unable to verify these transactions as part of the Review Procedures. The total value of the three transactions is [REDACTED].
- ▶ The Cash Flow Schedule includes an amount of [REDACTED] in respect of internal staff costs. The amount checked to supporting documentation as part of the Review Procedures is [REDACTED] and on this basis the Cash Flow Schedule is understated by [REDACTED].

In addition, in undertaking the Review Procedures we noted the following:

- ▶ We understand that the Greater Gabbard Transmission Assets were constructed as part of a single fixed price engineering, procurement and construction (EPC) contract with Fluor Limited for a total value of [REDACTED]. The basis for allocating the total cost of the EPC contract to the Greater Gabbard Transmission Assets is described at section 2.2.2 and the total amount allocated, analysed by sterling and euro payments, is set out below:

Value denominated in sterling	[REDACTED]
Value denominated in euros ([REDACTED] translated at £1: €1.2559)	[REDACTED]
Total value of Fluor contract allocated to the Greater Gabbard Transmission Assets	[REDACTED]

- ▶ The Developer has claimed an amount of [REDACTED] in respect of liquidated damages from Fluor. It has not however, deducted any liquidated damages from the total cost included in the Cash Flow Schedule. In considering the Developer's treatment of liquidated damages, we have reviewed an extract of the Fluor contract which states that liquidated damages will be paid by Fluor...

"...in full settlement of all losses, damages and expenses likely to be suffered or incurred by the Employer arising out of any breach by the Contractor of its obligations under this Contract..."

The Developer has informed us that it did not deduct liquidated damages from the total cost included within the Cash Flow Schedule as it considers liquidated damages to be compensation for lost revenue as opposed to a deduction from cost. The amount to be deducted from the Cash Flow Schedule would depend on the extent to which liquidated damages represent:

- ▶ Compensation in lieu of past events, and
- ▶ Compensation in lieu of future events.

The Developer has not provided information to enable us to undertake this analysis.

- ▶ Included within the total amount of [REDACTED] in respect of internal staff costs is an amount of [REDACTED] that is described within the Cash Flow Schedule as relating to the operation and maintenance of the Greater Gabbard Transmission Assets. We are informed that the Developer has included the cost of this time as the Greater Gabbard Transmission Assets have not yet been sold to an Offshore Transmission Operator.

Of the total direct and indirect costs included in the total project value, [REDACTED] (or [REDACTED] %) is represented by estimated amounts ([REDACTED]) and accrued amounts ([REDACTED]) respectively; these amounts are expected to be paid once the contractors have submitted their final statements of account.

2. Review procedures

2.1 Introduction

In order to substantiate the costs included in the Cash Flow Schedule, we have performed the Review Procedures detailed in Appendix A in relation to a sample of cost items selected by Ofgem.

This section of the report contains:

- ▶ An overview of the way in which the Developer has prepared the Cash Flow Schedule from its underlying accounting systems.
- ▶ The results of the Review Procedures in relation to:
 - ▶ Directly incurred costs: Costs incurred by the Developer in relation to third party suppliers which were incurred in the construction of the Greater Gabbard Transmission Assets.
 - ▶ Indirectly incurred costs: Project management costs incurred by the Developer, a proportion of which has been allocated to the Greater Gabbard Transmission Assets in the Cash Flow Schedule.

2.2 Preparation of the final Cash Flow Schedule

2.2.1 Accounting records

The Cash Flow Schedule was prepared by the Developer based upon extracts from the Oracle⁵ accounting system.

The main components of the process for compiling the Cash Flow Schedule are set out below:

- ▶ The Developer and Fluor Limited entered into a contract for the provision of construction work in respect of the Greater Gabbard Transmission Assets.
- ▶ Fluor issued applications for payment (“AFP”), which were sent to the Developer. The process for the authorisation and recording of each AFP is set out below:
 - ▶ The contract manager checked that the AFP value was consistent with the contract or variation order (see below).
 - ▶ The package manager checked that the work had been completed, approved the AFP and the Developer issued a certificate of payment to Fluor.
 - ▶ The contractor issued an invoice to the Developer with the certificate of payment attached. The invoice was sent to the Project Director who authorised it for payment and a copy of the invoice was sent to the Developer’s finance team to be processed into Oracle.
- ▶ Fluor periodically issued variation proposals to the Developer where additional costs were incurred. The Developer reviewed each variation proposal to assess the validity and value. If the variation proposal was accepted it was signed by the Developer and Fluor and a variation order was created.
- ▶ Each month, the Developer updated the Cash Flow Schedule and reconciled it to a monthly cost report downloaded from Oracle. The Cash Flow Schedule was used by the Developer to monitor overall progress of the Greater Gabbard wind farm project.

⁵ As set out in section 1.3.3. the Developer maintains its accounting records on SSE’s accounting system, ‘Oracle’.

We are informed that the accounting records maintained in Oracle do not explicitly separate amounts relating to the Greater Gabbard Transmission Assets and the Greater Gabbard Wind Farm Assets. The exercise of allocating the costs to the Greater Gabbard Transmission Assets has been prepared manually by the Developer as set out in section 2.2.2 below.

2.2.2 Allocation of costs

Certain costs in the Cash Flow Schedule have been allocated between the Greater Gabbard Transmission Assets and the Greater Gabbard Wind Farm Assets by the Developer as set out below:

2.2.2.1 Construction costs

- ▶ The Fluor contract sets out construction amounts which are described as follows:
 - ▶ Works and related costs separately identifiable in respect of the Greater Gabbard Transmission Assets.
 - ▶ Works and related costs separately identifiable in respect of the Greater Gabbard Wind Farm Assets.
 - ▶ Works and related costs not separately identifiable (for example “initial payments” and “final acceptance”).
- ▶ Where the works and related costs were separately identifiable within the Fluor contract, the costs have been allocated on an actual basis (e.g. by reference to payments detailed in invoices relating to contractual items specifically identifying the Greater Gabbard Transmission Assets).
- ▶ Where the works and related costs were not separately identifiable within the Fluor contract the Developer has allocated 29.81% of such costs to the Greater Gabbard Transmission Assets. The 29.81% allocation is based on the total value of amounts separately identifiable within the Fluor contract relating to the Greater Gabbard Transmission Assets as a proportion of the total amounts separately identifiable within the Fluor contract relating to both the Greater Gabbard Transmission Assets and the Greater Gabbard Wind Farm Assets.⁶

2.2.2.2 Other costs

- ▶ Included within the Cash Flow Schedule is an amount of ██████ in respect of external project management costs paid by the Developer. The amount represents ██████% of total external project management costs that the Developer has allocated to the Greater Gabbard Transmission Assets. The ██████% allocation is based on the total value of amounts separately identifiable within the Fluor contract relating to the Greater Gabbard Transmission Assets as a proportion of the total amounts separately identifiable within the Fluor contract relating to both the Greater Gabbard Transmission Assets and the Greater Gabbard Wind Farm Assets (as set out in section 2.2.2.1 above):
- ▶ Included within the Cash Flow Schedule is an amount of ██████ in respect of development costs (for example legal, insurance and office costs) and an amount of ██████ in respect of internal project management costs. The Developer has allocated development and internal project management costs to the Greater Gabbard Transmission Assets as follows:
 - ▶ The Developer initially allocated ██████%⁷ of total development costs and internal project management costs to the Greater Gabbard Transmission Assets). The

⁶ ██████% is calculated as the total value of payments separately identifiable within the Fluor contract as relating to the Greater Gabbard Transmission Assets (████████) as a percentage of the total value of payments separately identifiable within the Fluor contract as relating to both the Greater Gabbard Transmission Assets and Greater Gabbard Wind Farm Assets (████████)

⁷ ██████% is calculated as the total cost of the Greater Gabbard Transmission Assets, ██████ (excluding development costs and internal project management costs) as a percentage of the total cost of the Greater Gabbard

allocation is based on the total cost of the Greater Gabbard Transmission Assets (excluding development and internal project management costs) as a proportion of the total cost of the Greater Gabbard Transmission Assets and Greater Gabbard Wind Farm Assets (excluding development and internal project management costs). We understand that the Developer has used an allocation percentage of █████ % compared to the allocation percentage █████% used for allocation of non-separately identifiable construction and external project management costs as development and internal project management costs relate to the entire wind farm project and not just the Fluor contract.

- ▶ The Developer reduced the allocation percentage of █████ % as the capacity of the Greater Gabbard transmission cables was energised. In September 2010 the allocation percentage was reduced by one third to █████ %, in April 2011 the allocation percentage was reduced by a further third to █████% and May 2012 the Developer ceased to allocate any development and internal project management costs to the Greater Gabbard Transmission Assets. We are informed that the reduction in the allocation percentage at each of the above dates reflected the reduction in work undertaken in respect of the Greater Gabbard Transmission Assets as a proportion of the work undertaken in respect of the entire wind farm project.

2.3 Directly incurred costs

2.3.1 Work performed

The sample of directly incurred costs selected by Ofgem in relation to the Greater Gabbard Transmission Assets is set out in section 2.3.2, below.

The work performed in relation to these costs is set out in steps 1 to 6 of section 2 of the Review Procedures set out in Appendix A.

2.3.2 Results

The results of the Review Procedures⁸ are summarised below and set out in detail at Appendix C and Appendix D.

Contractor	Total per the Cash Flow Schedule	Accrued amounts	Total value per the Cash Flow Schedule excluding estimated and accrued amounts
Fluor	██████████ ⁹	██████████	██████████
Marsh	██████████	-	██████████
Total	██████████	██████████	██████████

The following exceptions were noted in the results of the Review Procedures:

- ▶ The Cash Flow Schedule includes accrued amounts of ██████████ in respect of the Fluor contract which, although agreed to contract or variation orders, have not been invoiced as at 30 June 2012 and have not yet therefore been agreed to purchase invoices, accounting ledgers or the Developer's bank statements.

Transmission Assets and Greater Gabbard Wind Farm Assets, ██████████ (excluding development costs and internal project management costs).

⁸ The sample of direct costs selected for testing by Ofgem relate to Marsh insurance and three specific elements of the Fluor Limited contract (purchase and installation of onshore substation, offshore substation and export cable).

⁹ ██████████ is comprised of sterling amounts (██████████) and euro amounts (██████████ translated at £1:€1.2559 = ██████████).

- ▶ The Cash Flow Schedule includes an amount of [REDACTED] in respect of Marsh Insurance however, as the Developer has been unable to provide purchase invoices and bank statements for three transactions dating to 2007, we have been unable to verify these transactions as part of the Review Procedures. The total value of the three transactions is [REDACTED].

In addition, in undertaking the Review Procedures we noted the following:

- ▶ The Developer has claimed an amount of [REDACTED] in respect of liquidated damages from Fluor¹⁰. It has not however, deducted any liquidated damages from the total cost included in the Cash Flow Schedule. In considering the Developer's treatment of liquidated damages, we have reviewed an extract of the Fluor contract which states that liquidated damages will be paid by Fluor...

"...in full settlement of all losses, damages and expenses likely to be suffered or incurred by the Employer arising out of any breach by the Contractor of its obligations under this Contract..."

The Developer has informed us that it did not deduct liquidated damages from the total cost included within the Cash Flow Schedule as it considers liquidated damages to be compensation for lost revenue as opposed to a deduction from cost. The amount to be deducted from the Cash Flow Schedule would depend on the extent to which liquidated damages represent:

- ▶ Compensation in lieu of past events, and
- ▶ Compensation in lieu of future events.

The Developer has not provided information to enable us to undertake this analysis.

2.4 Indirectly incurred costs (internal staff costs)

2.4.1 Work performed

The sample of indirectly incurred costs selected by Ofgem in relation to the Greater Gabbard Transmission Assets is set out in section 2.4.2, below.

The work performed in relation to these costs is set out in steps 1 to 5 of section 3 of the Review Procedures set out in Appendix A.

2.4.2 Results

The results of the Review Procedures are summarised below and set out in detail at Appendix E.

Total cost of internal staff time recorded by the Developer	[REDACTED]
Total value allocated to the Greater Gabbard Transmission Assets	[REDACTED]

The following exceptions were noted in the results of the Review Procedures:

- ▶ The Cash Flow Schedule includes an amount of [REDACTED] in respect of internal staff costs. The amount checked to supporting documentation as part of the Review Procedures is [REDACTED] and on this basis the Cash Flow Schedule is understated by [REDACTED].

We also discussed the basis of inclusion of internal staff costs with the Developer. We understand that at the start of each year the Developer:

¹⁰ Fluor Limited deducted the value of liquidated damages claims from purchase invoices issued to the Developer. There were three invoices with a deduction for liquidated damages reviewed as part of the Review Procedures. The three invoices are set out at Appendix C.

- ▶ Identified all employees that they expected to work on the project during the forthcoming year and estimated the percentage of time that each employee would spend working on the project.
- ▶ Calculated an adjusted salary cost by applying a mark up of 150% to the salary cost of each employee to account for employee related costs (employer's NI, pensions, holiday pay etc). We understand that the mark up does not include a profit margin.
- ▶ Calculated the estimated monthly cost of staff time for the forthcoming year by multiplying the estimated percentage of time by 1/12 of the adjusted salary cost for each employee.
- ▶ Then on a monthly basis:
 - ▶ The Developer's staff recorded actual hours worked in a separate time-recording system.
 - ▶ SSE and RWE issued invoices to account for staff costs during the year. We understand that SSE and RWE reviewed actual time incurred by staff during the month to validate the estimated percentage and amended where appropriate.
- ▶ A proportion of total cost of staff time is allocated to the Greater Gabbard Transmission Assets. The basis of allocation is set out in section 2.2.2.2.
- ▶ Included within the total amount of [REDACTED] in respect of internal staff costs is an amount of [REDACTED] that is described within the Cash Flow Schedule as relating to the operation and maintenance of the Greater Gabbard Transmission Assets. We are informed that the Developer has included the cost of this time as the Greater Gabbard Transmission Assets have not yet been sold to an Offshore Transmission Operator.

2.5 Foreign exchange

The Cash Flow Schedule includes an amount of [REDACTED] in respect of transactions denominated in euros. The Developer has translated the total amount of transactions denominated in euros ([REDACTED]) using an exchange rate of £1: €1.2559. We understand that the exchange rate used by the Developer is based on a calculation of the average forward exchange rate of 15 hedging contracts that the Developer entered into in August 2008.

Based on a schedule prepared by the Developer detailing the 15 hedging contracts entered into, Ofgem has selected a sample of three hedging contracts to review as part of the Review Procedures as set out in the table below:

Hedging contract reference	Date	Counterparty	Forward exchange rate	Spot exchange rate	Discount amount
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

We have been provided with a report from an electronic trading platform¹¹ for the three hedging contracts included in the above table and performed the following procedures:

- ▶ We agreed the forward exchange rate to the schedule provided by the Developer.

¹¹ We are informed that the Developer uses FXall, an independent electronic trading platform to record hedging contracts with counterparties.

- ▶ We agreed the hedging contract reference, date and counterparty to the schedule provided by the Developer.
- ▶ We recalculated the forward exchange rate to confirm that the forward exchange rate stated in the schedule provided by the Developer agreed to the spot exchange rate, less the discount amount set out in the electronic trading platform report.

We noted no exceptions in our procedures.

We are informed that, on expiry of each hedging contract, the Developer renegotiated each hedging contract until April 2011, which was the date of the final euro currency transaction in respect of the Greater Gabbard Transmission Assets.

The Developer has provided a management representation letter to support the exchange rate of £1: €1.2559 and the period covered by the hedging contracts. A copy of this letter is attached at Appendix F.

3. Variance analysis

3.1 Introduction

The total project value as set out in the Cash Flow Schedule is £323.7 million including financing costs and transaction costs. Changes in the total project value including financing costs over time can be summarised as follows:

- ▶ Per the PIM: £343.7 million (including financing costs of £54.4 million and transaction costs of £1.0 million).
- ▶ Per the FTTIM: £316.6 million (including financing costs of £36.2 million and transaction costs of £1.0 million).
- ▶ Per the Cash Flow Schedule provided by the Developer: £323.7 million (including financing costs of £42.4 million and transaction costs of £2.0 million).

This section contains the results of the Review Procedures described in Appendix A¹².

3.2 Reconciliation between the PIM and the FTTIM

The reconciliation between the PIM and the FTTIM can be summarised as follows:

Total project value	£ million
Estimated Transfer Value per the PIM	£343.7
Less	
Decrease in contingency amount	£(8.8)
Decrease in financing costs	£(18.3)
Estimated Transfer Value per the FTTIM	£316.6

The Developer has attributed the decrease in costs between the PIM and the FTTIM to the following reasons:

Decrease in contingency amount

The Developer included an amount of £31,443,243 within the PIM in respect of contingency amounts however, following discussion with Ofgem, the amount included in the FTTIM was reduced to £22,700,000, resulting in a variance of £8,743,243.

Financing costs

As stated in section 1.3.1, the calculation of financing costs has been subject to a separate review by Ofgem and is not within the scope of the Review Procedures.

¹² Appendix A, step 7 of section 2 and step 5 of section 3.

3.3 Comparison of total project value per the FTTIM to final total project value

The table below sets out a comparison of the total costs included in the FTTIM and the Cash Flow Schedule:

Cost category	Total cost (FTTIM)	Total cost (Cash Flow Schedule)	Variance
Offshore substation	██████████	██████████	██████████
Offshore cable supply and installation	██████████	██████████	██████████
Land cables	██████████	██████████	-
Onshore Substation/Reactive	██████████	██████████	██████████
Connection contract costs	██████████	██████████	██████████
Contingency	██████████	-	██████████
Development costs	██████████	██████████	██████████
Total direct and indirect costs	██████████	██████████	██████████
Transaction Costs	██████████	██████████	██████████
Interest during construction	██████████	██████████	██████████
Total project value	██████████	██████████	██████████

As stated in section 1.3.1, the calculation of interest during construction and transaction costs has been subject to a separate review by Ofgem and is not within the scope of the Review Procedures.

The Developer has attributed the decrease in direct and indirect costs between the FTTIM and the Cash Flow Schedule to the following reasons:

Total direct and indirect costs per FTTIM	£279,351,475
Increase in construction costs	£2,779,021
Increase in development costs and internal project management costs	£1,267,464
	£283,397,960
Change in allocation basis between the Greater Gabbard Transmission Assets and the Greater Gabbard Wind Farm Assets	£(4,221,857)
Total direct and indirect costs per FTTIM per Cash Flow Schedule	£279,176,103

Further details of each variance are set out below:

Increase in construction costs

The reasons for the increase in construction costs are set out in the table below:

Variation orders in respect of changes to contract scope (see below)	██████████
Estimated amounts included in the Cash Flow Schedule not included in the FTTIM (as set out in section 4.2)	██████████
Total increase in construction costs	£2,779,021

We are informed that the Developer entered into 13 variation orders with Fluor due to a revision in the scope of the initial contract. The Developer has incorporated the additional variation orders as at the date of the Cash Flow Schedule, resulting in a variance of [REDACTED]. An analysis of the [REDACTED] is set out below:

Purchase of firefighting equipment	[REDACTED]
Change to size of helideck	[REDACTED]
Reel leasing costs	[REDACTED]
Other variation orders	[REDACTED]
Total	[REDACTED]

Increase in development costs and internal project management costs

The Developer included an amount of [REDACTED] within the FTTIM in respect of development costs and internal project management costs compared to an amount of [REDACTED] in the Cash Flow Schedule resulting in a variance of [REDACTED]. We are informed that the increase relates to an extension of the construction period due to delays incurred by Fluor. The amount of [REDACTED] within the FTTIM related to development and internal project management costs up to March 2011 whereas the Cash Flow Schedule includes development costs and internal project management costs up to May 2012.

Increase in internal project management costs	[REDACTED]
Increase in insurance costs	[REDACTED]
Increase in site investigation costs	[REDACTED]
Increase in other development costs	[REDACTED]
Increase in internal project management costs and development costs	£1,267,464

Change in allocation basis between the Greater Gabbard Transmission Assets and the Greater Gabbard Wind Farm Assets

Change in allocation basis between FTTIM and Cash Flow Schedule (see below)	[REDACTED]
Reallocation of SCADA equipment from Greater Gabbard Transmission Assets to Greater Gabbard Wind Farm Assets following discussions with Ofgem	[REDACTED]
Total	£(4,221,857)

The Developer included an estimated amount of £52,200,000 within the FTTIM in respect of:

- ▶ Construction costs that were not separately identifiable as relating to either the Greater Gabbard Transmission Assets or the Greater Gabbard Wind Farm Assets.
- ▶ External project management costs payable to Fluor.

The Developer has subsequently revised the basis for allocating construction costs¹³ that were not specifically identifiable and external project management costs payable to Fluor. Following this revision the Developer has allocated an amount [REDACTED] within the Cash Flow Schedule resulting in a variance of [REDACTED].

¹³The basis for the allocation of costs is set out at section 2.2.2

4. Project value

4.1 Total project value

The total value of the Greater Gabbard Transmission Assets calculated by the Developer is £323,666,658. The total project value is made up of the following costs:

Cost category	Total cost
Offshore substation	██████████
Offshore cable supply and installation	██████████
Land cable	██████████
Onshore Substation	██████████
Connection costs	██████████
Development	██████████
Total direct and indirect costs	██████████
Transaction costs	██████████
Interest during construction	██████████
Total project value	██████████

4.2 Payments made by the Developer

The total project value comprises amounts which have been invoiced and amounts yet to be invoiced and paid. Excluding transaction costs and interest during construction these amounts can be summarised as follows:

Cost category	Settled amounts	Estimated amounts	Accrued amounts	Total project value
Direct costs	██████████	██████████	██████████	██████████
Indirect costs	██████████	-	-	██████████
Total direct and indirect costs	██████████	██████████	██████████	██████████

The above table shows that of the total direct and indirect costs included in the total project value, ██████████ (██████████ + ██████████), or ██████ % is represented by estimated amounts and accrued amounts respectively. These amounts are expected to be paid once the contractors have submitted their final statements of account.

An analysis of the estimated amounts included within the Cash Flow Schedule is set out below:

Estimated amount relating to:	Amount
Cost of clearing unexploded mines	██████████
Purchase of cable reel	██████████
Full export cable survey	██████████
Legal costs	██████████
Total	██████████

Appendix A Review procedures

1. Background Work

1. Ascertain the processes and policies undertaken by the developer for making payments to suppliers for all direct costs incurred for the project.
2. Ascertain the processes and policies and metrics used by the developer by which shared costs (e.g. overheads and other indirect costs which may be split between transmission and generation) have been allocated to the project.

2. Review Work – Directly Incurred Costs

1. For a selected sample contract trace expenditure from the cash flow schedule to the relevant contract or other source record.
2. From the contract trace to an invoice(s) or journal.
3. From the transaction selected in (2) trace through the purchasing systems (from Purchase Day Book or equivalent to Purchase ledger or equivalent)
4. For same transaction trace through to the payment system (from the purchase ledger through to the general / nominal ledger). Confirmation includes verification of the payment summary with the supplier and ensuring calculations are arithmetically correct and free from error.
5. For the same transaction trace the payments made from the general ledger through such that the payment can be agreed to a debit entry on the bank account (debit entry being from the companies perspective and for avoidance of doubt represents a cash expense i.e. cash outlay from the business).
6. Prepare a report detailing the contractual payments made or due their cause (i.e. main contract or variations or claims, and the extent to which the contract provide warranties or ongoing support and the work undertaken with an appendix for copies of the support documentation on the selected contract and allocation).
7. Compare total costs at Project Close with Project Value at August 2009. Obtain supporting information and explanations for variances between the two dates.

3. Review Work – Indirectly Incurred Costs

1. For a sample of transactions trace from the asset schedule to journal entries made on the accounting system.
2. Confirm the amount allocated has been determined as prescribed in the cost allocation methodology the Developer has indicated using

appropriate metrics in respect of the allocation of such costs between transmission and generation.

3. Confirmation includes ensuring calculations are arithmetically correct and free from error.
4. Prepare a report detailing the work undertaken with an appendix for copies of the support documentation on the selected contract and allocation.
5. Compare total costs at Project Close with Project Value at August 2009. Obtain supporting information and explanations for variances between the two dates.

Appendix B C, D, E and F redacted