



Grant Thornton

**Ex-Post Cost Review of West of Duddon Sands Wind Farm
Transmission Assets**

Report of Grant Thornton UK LLP dated 30 July 2015

CONTENTS

1	Executive summary	1
2	Introduction	6
3	The West of Duddon Sands Ex-Post Review	9

APPENDICES

- 1 Movement between the cost templates**
- 2 Direct costs invoice testing**
- 3 JV Fabricom invoice review**
- 4 Scaldis Salvage & Marine Contractors invoice review**
- 5 NKT Cables invoice review**
- 6 Visser & Smit Marine Contracting invoice review**
- 7 Onshore Substation Contractor invoice review**
- 8 National Grid Electricity Transmission invoice review**
- 9 Indirect costs invoice testing**
- 10 Geo-tech invoice review**
- 11 Insurance invoice review**
- 12 Project management costs**

1 EXECUTIVE SUMMARY

- 1.1 Grant Thornton UK LLP (Grant Thornton) has been instructed by The Office of Gas and Electricity Markets (Ofgem) to carry out a review (in accordance with our instructions set out in **Section 2**) of the ex-post cost information prepared by West of Duddon Sands Wind Farm (WoDS) for the transmission assets (the Transmission Assets) of the WoDS Wind Farm (the Wind Farm) as set out in further detail at paragraphs 2.7 and 2.8.
- 1.2 The Wind Farm is being developed as an unincorporated joint venture by ScottishPower Renewables (UK) Limited (ScottishPower) and DONG Energy Wind Power (UK) Limited (DONG Energy) (collectively the Developers).
- 1.3 The review has sought to determine whether the Developers have procedures in place for managing directly and indirectly incurred costs, and to carry out certain testing on whether the Developers' latest assessment of the cost of the Transmission Assets recorded in the cost template (CAT) provided to Ofgem on 3 July 2014 to support the final transfer value (the 3 July 2014 CAT) have been incurred as stated. Further detail of our work is set out in **Section 3**, supplemented in **Appendices 1 to 12**, and is summarised as follows:
- i establish the processes and policies undertaken by the Wind Farm for making payments for directly and indirectly incurred costs;
 - ii for selected contracts in relation to directly incurred costs, trace expenditure through the purchasing and payments system and reconcile the costs included on the invoice schedule to the 3 July 2014 CAT;
 - iii for selected transactions in relation to indirectly incurred costs, trace expenditure through the accounting system, and confirm the amount allocated has been correctly applied in accordance with the stated allocation methodology, using appropriate metrics in respect of the allocation of costs between transmission and generation assets; and
 - iv compare the costs in the 3 July 2014 CAT to the Indicative Transfer Value set in August 2013 (ITV), and obtain explanations for significant variances arising between the two dates.
- 1.4 This report reflects the 3 July 2014 CAT together with information and explanations received by Grant Thornton up to and including 28 November 2014. Our report does not, therefore, reflect any information or the outcome of discussions held after that date, or the discussions which have taken place between Ofgem and the Developers subsequent to 3 July 2014 in respect of allocation rates and foreign exchange.

- 1.5 The Developers have prepared cost templates setting out their assessment of the costs of the Transmission Assets throughout the development of the Wind Farm project. We reviewed earlier versions of the cost template submitted to Ofgem by the Developers in December 2012 and information received up to August 2013 (the Ex-Ante Review), which culminated in the submission of our final report on 15 August 2013. Our report was considered by Ofgem in establishing the project's ITV set in August 2013.
- 1.6 The Developers have submitted the 3 July 2014 CAT to Ofgem, setting out their current assessment of the costs incurred in the development of the Wind Farm's Transmission Assets, and it is this cost template that has been used in our work. The 3 July 2014 CAT is summarised below:

TABLE REDACTED

- 1.7 The 3 July 2014 CAT reflects very little movement in the total cost of the Transmission Assets. The capital costs have decreased by £REDACTED, primarily as contingencies are released when costs become known. There have been certain redistributions of costs, particularly between submarine cable supply and land cable supply, and between civil works and land cable installation. The full analysis of the variances above is presented at **Appendix 1**.

SUMMARY OF FINDINGS

The Wind Farm's payment processes

- 1.8 We were instructed by Ofgem to establish the Wind Farm's processes for making payments to suppliers for directly and indirectly incurred costs. Part of our review included consideration of the systems for recording costs. The Wind Farm's accounting records are maintained by DONG Energy.
- 1.9 Based upon our review it appears the Developers have suitable systems in place for the approval and payment of invoices to contracts, including contract variations, and have further systems in place to ensure that, where appropriate, the allocation of costs between the transmission and generation assets is properly recorded.

Directly incurred costs

- 1.10 We were instructed by Ofgem to carry out certain procedures (as detailed at paragraph 3.16) on the costs payable by the Wind Farm to six contractors for works relating to the offshore substation and platform (JV Fabricom Lemants (Fabricom) and Scaldis Salvage & Marine Contractors (Scaldis), submarine cable supply (NKT Cables (NKT)) and installation (Visser & Smit Marine Contracting (VSMC)), land cable supply (NKT), onshore civil works (Onshore Substation Contractor) and connection costs (National Grid Electricity Transmission (NGET)).
- 1.11 These procedures have been carried out as required and a summary of our findings is set out below:

TABLE REDACTED

- 1.12 We have identified that REDACTED% of the amounts due to contractors have been paid.
- 1.13 Accrued costs represent firm amounts still to be paid, or variation orders agreed in principle and works already carried out but not yet paid. Estimated costs represent costs which have not yet been agreed, but are a best estimate of the amounts that will become payable¹.
- 1.14 We have checked the basis of calculation of the accrued and estimated amounts and consider that these amounts have been determined appropriately based upon the underlying evidence that we have seen.
- 1.15 In respect of the Onshore Substation Contractor contract, we recommend that Ofgem confirms a final value before transfer. We understand that negotiations have taken place over recent months, to reduce the total amount payable from £REDACTED to £REDACTED, a reduction of £REDACTED (paragraph 2.38 of **Appendix 2**).

Indirectly incurred costs

- 1.16 We were instructed by Ofgem to carry out certain procedures (as detailed in paragraphs 3.23 and 3.25) in relation to the following costs payable by the Wind Farm:
- 1.17 Our work in relation to these costs is summarised below:

TABLE REDACTED

¹ Details of any exchange rates to be applied to estimated costs to accrued amounts and estimated costs to complete are visible in the detailed testing at Appendices 3 to 8

Geotechnical investigation and insurance costs

- 1.18 We have identified that REDACTED% of the amounts due have been paid.
- 1.19 Estimated costs represent costs which have not yet been agreed, but are a best estimate of the amounts that will become payable.
- 1.20 We have agreed the allocation rate of insurance costs, at REDACTED% in respect of the Transmission Assets, which has been calculated on the basis of supply and materials costs directly attributable to the Transmission Assets as a proportion of total supply and materials costs that are directly attributable to either the Transmission Assets or the generation assets.

Project management costs

- 1.21 We have traced the time costs of five employees (three from DONG Energy and two from ScottishPower) from their timesheets, to invoicing, posting on the ledger and subsequent payment.

CONCLUSIONS

- 1.22 The nature of changes the Developers have proposed are similar to those we have seen on other projects.
- 1.23 The Developers have confirmed to us that they have policies in place for the approval and payment of goods and services received, including for the allocation of costs, where appropriate, between the transmission and generation assets.
- 1.24 On the basis of our review of the information and explanations received to date in relation to the sample of directly and indirectly incurred costs that we have been asked to review, we can confirm that they are supported by invoices, ledgers and bank statements that show that they have been incurred or are due or (in the case of estimates) are a reasonable current estimate for the relevant cost included within the 3 July 2014 CAT.
- 1.25 Following our review of the information and explanations received to date in relation to the sample of directly and indirectly incurred costs that we have been asked to review, we can confirm that the sample of directly and indirectly incurred costs tested are supported by invoices and bank statements that show they have been incurred and have either been paid or are due.

1.26 We understand that the Developers have proposed three adjustments to the 3 July 2014 CAT as follows:

- i a reduction of £REDACTED in relation to REDACTED contract, which was overstated in the 3 July 2014 CAT;
- ii a reduction of £REDACTED in respect of negotiations with REDACTED; and
- iii a reduction of £REDACTED in respect of the exclusion of a maintenance contract with REDACTED.

1.27 We also understand that the Developers have agreed with Ofgem to process these adjustments, which have not been included in the 3 July 2014 CAT.

GRANT THORNTON UK LLP

Grant Thornton UK LLP

London

30 July 2015

2 INTRODUCTION

INSTRUCTIONS

- 2.1 Grant Thornton has been instructed by Ofgem to prepare a report on our review of the cost information and 3 July 2014 Cost Assessment Template (the 3 July 2014 CAT) for the Transmission Assets of the Wind Farm, prepared for Ofgem by the Developers (the Ex-Post Review). This review is limited to the procedures set out in more detail in **Section 3**, and in particular, to a sample of costs which have been selected by Ofgem.
- 2.2 Throughout the development of the Wind Farm, Ofgem has required the Developers to submit cost assessment templates, which set out both estimates and actual costs that will be/have been incurred in relation to the Transmission Assets.
- 2.3 In August 2013 we conducted a review of the cost assessment template prepared as at December 2012 (the Ex-Ante Review). At this stage substantive construction works for the Wind Farm had yet to take place and there was a degree of uncertainty over a number of costs. As such, the ITV included a contingency provision which equated to just over REDACTED of the Transmission Asset costs.
- 2.4 Further to the Ex-Ante Review, Ofgem set the ITV for the Transmission Assets in August 2013. This was based upon the Transmission Asset costs included in our report of 15 August 2013, and adjusted for particular issues that had been highlighted in our draft report, and by Ofgem's technical consultants.
- 2.5 The reconciliation between the initial transfer value at Pre-Qualification (PQ) and the ITV set in August 2013 is as follows:

TABLE REDACTED

- 2.6 At the current point in time, development work on the Transmission Assets is largely complete, with the Wind Farm expected to become fully operational at the end of 2014.
- 2.7 The main objective of the Ex-Post Review is to substantiate a sample of costs included within the 3 July 2014 CAT, and to compare certain sample costs actually incurred by the Wind Farm in relation to its Transmission Assets to those costs that were expected to be incurred at the time of the Ex-Ante Review.

- 2.8 The main purpose of the Ex-Post Review of the Wind Farm's Transmission Assets is to determine whether a sample of items selected by Ofgem, which have been included within the 3 July 2014 CAT prepared by the Developers for the Transmission Assets, are appropriately stated, and whether selected costs not directly attributable to either the generation or transmission business have been allocated to the Transmission Assets on a reasonable basis. In particular, we have been asked to:
- i establish the processes and policies undertaken by the Developers for making payments to suppliers for directly and indirectly incurred costs;
 - ii for selected contracts, in relation to directly incurred costs, trace expenditure from the cash flow schedule to the contract, invoice, the accounting ledgers of the Wind Farm, and to bank statements, and reconcile the costs included on the invoice schedule to the 3 July 2014 CAT;
 - iii for a sample of transactions, in relation to indirectly incurred costs, trace from the 3 July 2014 CAT to journal entries made on the accounting system, and confirm the amount allocated has been determined as prescribed in the cost allocation methodology that the Developers have indicated, using appropriate metrics in respect of the allocation of costs between transmission and generation; and
 - iv compare the costs in the 3 July 2014 CAT to the ITV set in August 2013, and obtain explanations for variances between the two dates.
- 2.9 This work does not constitute an audit performed in accordance with Auditing Standards.
- 2.10 If further information is produced and brought to our attention after service of this report, we reserve the right to revise our opinions as appropriate.
- 2.11 Except to the extent set out in this report, we have relied upon the documents and information provided to us as being accurate and genuine. To the extent that any statements we have relied upon are not established as accurate, it may be necessary to review our conclusions.
- 2.12 The report has been prepared using Microsoft Word and Microsoft Excel. The report may contain minor rounding adjustments due to the use of computers for preparing certain calculations.

RESTRICTION ON CIRCULATION

- 2.13 Grant Thornton does not accept or assume responsibility, duty of care, liability or other obligation to any third party other than Ofgem, who as a result, either directly or indirectly, of disclosure of the whole or any part of this report by Ofgem receives, reads or otherwise obtains access to this document. Any party relying on this report does so entirely at their own risk.

2.14 In the preparation of this report, Grant Thornton has been provided with material by Ofgem (and by third parties at Ofgem's request) relating to third parties. We have relied upon warranties and representations provided by Ofgem that:

2.14.1 Ofgem is fully entitled to disclose such information to us for inclusion within our report, free of any third party rights or obligations; and

2.14.2 Ofgem will only permit circulation of this report in accordance with any rights to confidentiality on the part of any third party.

2.15 Any objections to the inclusion of material should be addressed to Ofgem. Accordingly, Grant Thornton acknowledges no duty or obligation whatsoever to any party in connection to the inclusion in the report of any material referring to any third party material or the accuracy of such material.

DISCLOSURES OF INTEREST

2.16 To the best of our knowledge, we have no connection with any of the parties or advisors involved in the Wind Farm development that would in any way impact upon our independence in preparing this report.

FORMS OF REPORT

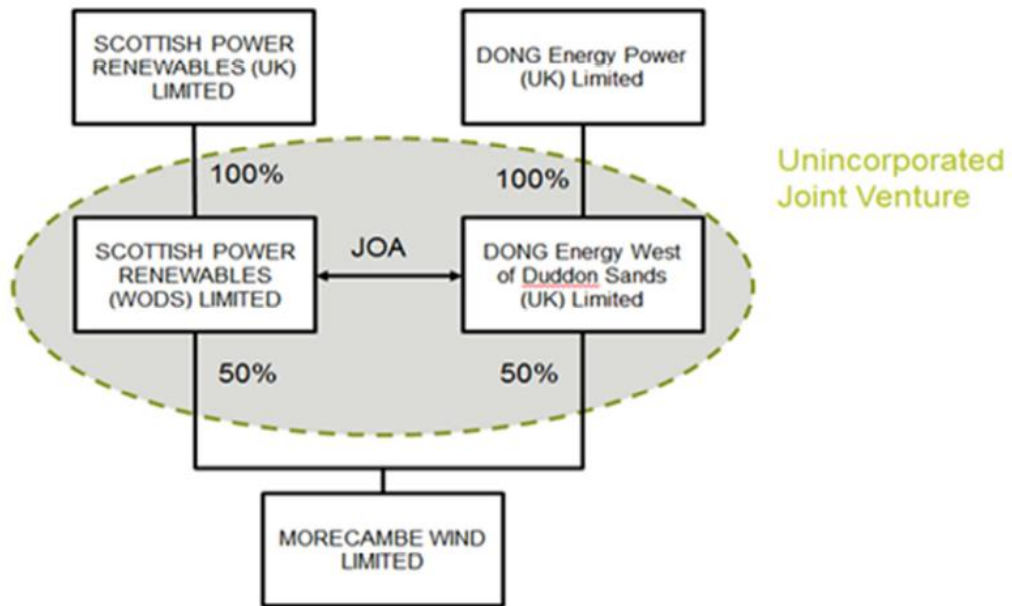
2.17 For your convenience, this report may have been made available to recipients in electronic as well as hard copy format. Multiple copies and versions of this report may therefore exist in different media and in the case of any discrepancy the final signed electronic copy should be regarded as definitive.

3 THE WEST OF DUDDON SANDS EX-POST REVIEW

INTRODUCTION

3.1 The Wind Farm is located in the East Irish Sea, approximately 14 kilometres from Barrow-in-Furness, off the Cumbrian Coast in northwest England. The Wind Farm consists of 108 3.6MW wind turbine generators with an installed capacity of 388.8MW (382MW at point of connection to Offshore Transmission Owner (OFTO)²), connected to the offshore substation platform located within the boundaries of the WoDS Wind Farm some 41 kilometres from the sea cable landing point. The WoDS transmission assets (the Transmission Assets) will connect to the 400/132kV National Grid substation at Heysham, Lancashire.

3.2 The Transmission Assets for the WoDS Wind Farm are currently owned equally by ScottishPower and DONG Energy through subsidiary companies as depicted below:



3.3 The Developers have entered into a Joint Operation Agreement (JOA) to establish an unincorporated joint venture.

² The difference between installed and connected capacity is attributed to array cable losses

INFORMATION PROVIDED

- 3.4 Grant Thornton has relied upon the following information in reviewing the cost assessment template (the 3 July 2014 CAT) for the Wind Farm's Transmission Assets:
- i the 3 July 2014 CAT, which includes actual costs incurred up to that date and estimates of costs that will be incurred from that date up to completion of the Wind Farm development;
 - ii a letter from Ofgem setting out the reconciliation of reconciling items between the CAT at 30 June 2012 and the ITV value of 31 August 2013 (as detailed in paragraph 2.5 above);
 - iii schedules of invoices prepared for the contracts selected by Ofgem, together with copies of invoices, certificates and bank statements showing payment of the invoices recorded;
 - iv schedules providing supporting information for the internal project management costs; and
 - v information and explanations provided to us by the Developers. This included a visit to the Developers' offices on 20 August 2014 to discuss the Transmission Assets, and subsequent telephone calls and email correspondence with the Developers' staff responsible for the preparation of the 3 July 2014 CAT.

EX-POST REVIEW

- 3.5 The main purpose of the Ex-Post Review is as set out in **Section 2**.
- 3.6 The 3 July 2014 Cost Assessment Template for the Transmission Assets of the Wind Farm is summarised below:

TABLE REDACTED

- 3.7 We have sought explanations for all variances in excess of £REDACTED as set out in **Appendix 1**.

THE WIND FARM'S FINANCIAL PROCESSES

Accounting systems

- 3.8 Under the terms of the JOA signed between Scottish Power and DONG Energy, the latter is responsible for providing the accounting team that supports the Wind Farm project. DONG Energy uses the SAP accounting system for the Wind Farm.

3.9 Forecasting and budgeting takes place on a quarterly basis by package area. Management accounts are produced on a monthly basis, along with an analysis of expected payments for the following month. The finance team conducts the forecasting process with the individual package managers to go through all costs, what has been undertaken and what is yet to be undertaken. Both the management accounts and project forecasts are reported to the Executive Committee, which comprises two directors from each of DONG Energy and Scottish Power. The Executive Committee heads up the decision making process for the Wind Farm.

Cost allocation

3.10 The Wind Farm project incurs certain costs during development and construction that are shared between transmission and generation. At the time of our review, the Developers were using five different rates to allocate project common costs to the Transmission Assets:

- i category C - supply and materials, partly attributable to the Transmission Assets - REDACTED%;
- ii category F - management resources, consultants and travel, partly attributable to the Transmission Assets - REDACTED%;
- iii category H - SCADA equipment, FID budget calculation REDACTED% relate to the Transmission Assets - REDACTED%;
- iv category I - Electrical resources, partly attributable to the Transmission Assets - REDACTED%; and
- v category J - Insurance - REDACTED%.

3.11 These allocation rates were calculated as a ratio of all direct costs attributable to the Transmission Assets divided by the total cost. We agreed that the allocation rates used are mathematically accurate and the methodology employed was appropriate.

3.12 However, we understand that the Developers have subsequently agreed revised allocation rates with Ofgem.

Process for making payments

- 3.13 The main process used by WoDS for making payments for both directly and indirectly incurred costs is set out below:
- i The contractor will submit an application for payment; this is reviewed by the engineering contract holder and procurement contract manager; the payment application is then approved by the respective Package Lead and the signed payment application is then sent to the contractor.
 - ii The contractor then issues the invoice, which is put on the system by the credit control team at DONG Energy. All the supporting documentation behind the invoice, as well as the invoice, is scanned to SAP. The invoice has three or four approval stages, depending on the value of the invoice. The Developers have confirmed the following payment governance is in place:
 - a project managers in the EPC project, Consents Project Manager, Commercial Project Manager and Operations Project Manager can approve the release of payment for project commitments already made of REDACTED;
 - b the EPC Director can approve the release of payment for project commitments already made of REDACTED;
 - c the Programme Director can approve the release of payment for project commitments already made of REDACTED; and
 - d above REDACTED the Executive Vice President is required to approve the release.
 - iii Once the invoice has been approved it can be paid. The payments are run as batched BACS payments by the central finance team in DONG Energy's Headquarters in Denmark. The central finance team there will approve the payment, and generate the remittance from the relevant WoDS bank account (DKK, EUR, USD or GBP).
 - iv The Developers have confirmed that Dong Energy and ScottishPower split equally all amounts payable, including those payable in foreign currencies. The Developers have confirmed that the same exchange rate is therefore used.

Contract variations

- 3.14 The Final Investment Decision (FID) was made in June 2011 and the Project budget was set, further variations will be reviewed and approved under the following process:
- i any required variations will go through detailed technical discussions before any commitment is made;
 - ii there will be a tendering process, after which a successful bidder is identified; this is the exception not the norm, in most cases VO's to existing contracts will normally be made with the same contractor;
 - iii the variation order is issued by a Procurement Manager;
 - iv the variation order will be checked by the Project Team responsible for that project area;
 - v all variation orders above REDACTED will go to the Contracts Panel for approval, where the variation order will be considered to ensure that it is the best technical and commercial option before it is signed and the works commence; and
 - vi when the variation order has been agreed, the Package Manager must liaise with the SAP team to ensure the full value of the contract is correctly captured within SAP.

REVIEW OF DIRECTLY INCURRED COSTS

- 3.15 Ofgem has selected the following six contracts of directly incurred costs for review (the NKT Cables contracts lines below relate to one contract):

TABLE REDACTED

- 3.16 Ofgem has directed that our work in relation to these contracts covers the following:
- i trace expenditure from the cash flow schedule to the relevant contract or other source record, and from the contract trace to an invoice(s) or journal;
 - ii note the date on which the contract was signed;
 - iii trace the invoice through the purchasing systems;
 - iv trace the invoice through to the payment system; and
 - v trace the payments through to the bank account.

- 3.17 We have reviewed amounts in relation to these contracts in excess of £100,000.

- 3.18 Our detailed testing to these contracts is set out in **Appendices 2 to 8**, and our findings are summarised in the following table:

TABLE REDACTED

Invoices paid

- 3.19 Our review of invoices paid by the Developers that relate to the six contracts selected by Ofgem raised no areas of concern.

Accrued costs and estimated costs to complete

- 3.20 Our review of accrued and estimated amounts in relation to the six contracts selected by Ofgem raised no areas of concern.

Other items

- 3.21 Our review of other reconciling items in relation to the six contracts selected by Ofgem raised no areas of concern.

REVIEW OF INDIRECTLY INCURRED COSTS

- 3.22 Ofgem has selected the following costs for testing:
- i geotechnical investigation costs of £REDACTED;
 - ii insurance costs of £REDACTED; and
 - iii project management costs.
- 3.23 Ofgem has directed that our work in relation to geotechnical and insurance costs covers the following:
- i trace expenditure from the cash flow schedule to the relevant contract or other source record, and from the contract trace to an invoice(s) or journal;
 - ii note the date on which the contract was signed;
 - iii trace the invoice through the purchasing systems;
 - iv trace the invoice through to the payment system; and
 - v trace the payments through to the bank account.
- 3.24 Our detailed testing to these contracts is set out in **Appendices 9 to 11**, and our findings are summarised in the following table:

TABLE REDACTED

3.25 Ofgem has directed that our work in relation to project management support services costs covers the following:

- i select a sample of employees (including employees from both DONG Energy and ScottishPower);
- ii agree costs from each individual's timesheet to the system; and
- iii agree corresponding payment from the project.

3.26 Our detailed testing to these contracts is set out in **Appendix 12**, and our findings are summarised in the following table:

TABLE REDACTED

MOVEMENTS IN THE COST ASSESSMENT

3.27 The movements between the ITV of 31 August 2013 and the 3 July 2014 CAT are summarised in the following table:

TABLE REDACTED

3.28 The principal reason for the decrease in capital costs between the ITV set at 31 August 2013 and the 3 July 2014 CAT is the reduction in contingency as costs become known, offset by additional costs arising on the REDACTED contract for the onshore civil works and land cable REDACTED.

3.29 There has also been a redistribution of costs between land cable supply and installation, submarine cable supply and installation and onshore substation as follows:

TABLE REDACTED

3.30 The full variance analysis is at **Appendix 1**.

IMPACT OF COST ASSESSMENT REVIEW

3.31 Following our review of the 3 July 2014 CAT, as detailed above, we consider that there are no further amendments to be made to the cost template. The Developers drew our attention to three adjustments they have already agreed with Ofgem will be processed for the Final Transfer Value:

- i a reduction of £REDACTED in respect of the REDACTED contract which was overstated in the 3 July 2014 CAT
- ii a reduction of £REDACTED in respect of negotiations with REDACTED; and
- iii a reduction of £REDACTED in respect of the exclusion of a maintenance contract with REDACTED.

1 MOVEMENT BETWEEN THE COST TEMPLATES

- 1.1 We have been instructed to compare the total Transmission Asset costs set out in the CAT dated 31 August 2013 (following the Ex-Ante Review) with the total Transmission Asset costs included within the 3 July 2014 CAT, and to obtain explanations for variance between the two dates. These movements, prior to any adjustments detailed in this report³, are summarised as follows:

TABLE REDACTED

- 1.2 We have sought explanations from the Developers for the reasons for the significant movements in each of the cost categories, which are summarised below:

PROJECT COMMON COSTS

- 1.3 Project common costs have decreased by a net £REDACTED. This is principally due to a decrease of £REDACTED contingency as costs become known. There are further decreases of £REDACTED in project management and support travel costs and landowner agreements; this is due to a £REDACTED reduction on estimated project management travel expenses, a £REDACTED reduction on estimated offshore substation travel expenses and £REDACTED reduction on estimated onshore substation travel expenses. There is also a reduction on estimated consultancy costs of £REDACTED related to legal advice and environmental consents comprising a reduction of £REDACTED in respect of environmental surveys, partly offset by an increase of £REDACTED for unexploded ordinance surveys.
- 1.4 These reductions in project common costs have been partly offset by increases of £REDACTED in site support costs and an increase of £REDACTED in project management and support costs. Both these costs have risen as a result of the Transmission Assets representing a larger portion of the overall project costs than was originally anticipated and as such, the percentage allocation to the Transmission Assets has increased. The Developers have subsequently agreed the final allocation rate with Ofgem.

OFFSHORE SUBSTATION

- 1.5 Offshore substation costs have decreased by £REDACTED. This is mainly as a result of a decrease of £REDACTED offshore substation contingency as costs become known.

³ the Developers' proposed adjustments agreed with Ofgem subsequent to the submission of the 3 July 2014 CAT

- 1.6 There are further decreases of £REDACTED in respect of engineering hours comprising a decrease of £REDACTED on engineering and support hours for the offshore substation and a £REDACTED reduction on estimated resource costs for the installation of the offshore substation. REDACTED, and a decrease of £REDACTED other offshore substation costs, which comprise of a £REDACTED decrease to actual spend relating to equipment installation and spare parts, where outturn is less than forecast, and a reduction on estimated costs of £REDACTED in relation to relief drilling.
- 1.7 These reductions have been partially offset by an increase of £REDACTED in Fabricom costs. A variation order of £REDACTED was signed in respect of actual days for barge transport and installation. Rectification works were required as a result of the multi-contract approach costing a further £REDACTED, and REDACTED separate variation orders totalling £REDACTED, where no individual variation order represents an individually significant amount.

SUBMARINE CABLE SUPPLY AND INSTALLATION

- 1.8 Submarine cable supply and installation costs have decreased by £REDACTED.
- 1.9 The largest movement is the elimination of £REDACTED submarine supply and installation contingency, as costs become known.
- 1.10 There has been a further decrease of £REDACTED NKT export cable supply costs largely due to the removal of the Batch 4 export cable supply from the 3 July 2014 CAT and the reallocation of cable supply costs relating to the land cable supply variation orders (£REDACTED). The Developers have confirmed that at the ITV stage the decision had not been made as to how to treat the Batch 4 costs, and this was therefore included within the ITV. Under guidance from Ofgem, WoDS management decided not to include the Batch 4 costs in the 3 July 2014 CAT (with the exception of the insurance deductibles as per paragraph 1.15).
- 1.11 These decreases have been partially offset by increases of £REDACTED Boskalis offshore subsea rock dumping, as additional costs were incurred as a result of the increased length of the exposed cable on the crossing, additional costs encountered during remedial rock dumping, which had not originally been foreseen, and other unexpected costs that had not been anticipated at the time the contract was signed.
- 1.12 There was also an increase of £REDACTED other costs related to export cable installation; £REDACTED for the Depth of Burial Survey not anticipated at the ITV stage, and £REDACTED of individually insignificant amounts.

- 1.13 A further increase of £REDACTED has been incurred in respect of engineering hours related to subsea cables, which has arisen due to unforeseen additional project governance and documentation requirements not anticipated at the ITV stage.
- 1.14 There has been a further cost increase of £REDACTED in respect of other costs related to export cable supply. This is comprised of a number of individually insignificant items in addition to £REDACTED due to DTS system, and £REDACTED due to scaffolding needed during the installation of the cable. This cost was not reallocated to 'export cable installation' as it was deemed not to have a material effect on the 3 July 2014 CAT.
- 1.15 There was an increase of £REDACTED relating to insurance deductible costs that were paid by the Developers in relation to Batch 4 (the term the Developers used to a bulgy export cable section that was ultimately replaced in 2014). No other costs in relation to Batch 4 have been included within the 3 July 2014 CAT.

LAND CABLE SUPPLY AND INSTALLATION

- 1.16 Land cable supply and installation costs have increased by £REDACTED. This is principally as a result of the reallocation of £REDACTED onshore export installation costs with Onshore Substation Contractor which had previously been included in onshore substation costs. The original contracted cost and all applicable variation orders have been reallocated to land cable supply and installation to ensure costs are split into the correct categories.
- 1.17 Further increases of £REDACTED are shown in respect of land cable supply and installation following the reallocation to this category of the costs of NKT variation orders, which had previously been included in submarine cable supply and installation costs.
- 1.18 An increase of £REDACTED engineering hours relating to land cable has been recorded. This is mainly attributable to the civil contractor (Onshore Substation Contractor) experiencing difficulty in delivering the contract to the original time schedule (see paragraph 1.23). The installation of the land cable started six months later than had been originally planned.
- 1.19 These cost increases, together with a small increase in other costs (£REDACTED), are offset by the £REDACTED reduction of land cable contingency as costs become known.

ONSHORE SUBSTATION

- 1.20 Onshore substation costs have decreased by £REDACTED.

- 1.21 Part of the reason for the decreased is due to the elimination of £REDACTED onshore substation contingency as costs become known.
- 1.22 There has been a decrease of £REDACTED consultancy costs related to the onshore substation. The mix of consultancy hours required versus WoDS engineering hours turned out differently than expected. This decrease partly offsets an increase in engineering hours as discussed in paragraph 1.23.
- 1.23 However the decrease in costs has been offset by increases of £REDACTED in respect of the onshore civil work and £REDACTED in respect of engineering hours related to work on the onshore substation. REDACTED.
- 1.24 There has been an increase in cost of £REDACTED in relation to Siemens SVC costs. REDACTED.
- 1.25 There has been a further increase of £REDACTED in relation to onshore substation transformers. This increase is mainly due to changes in the scope of supply due to revised requirements received from Kelvin Construction (working as a subcontractor to Onshore Substation Contractor).

CONNECTION CONTRACT COSTS

- 1.26 Connection contract costs have decreased by £REDACTED. There has been an increase of £REDACTED with NGET in respect of £REDACTED for a service contract, which will be eliminated from the final 3 July 2014 CAT submitted to Ofgem and £REDACTED of individually insignificant amounts.
- 1.27 This has been more than offset by a decrease of £REDACTED grid connection costs as a result of £REDACTED connection costs being re-allocated to the reactive substation, and £REDACTED that was no longer required being released from contingency.

FOREIGN EXCHANGE GAINS/LOSSES ON CONTRACTS

- 1.28 Foreign exchange gains/losses on contracts have increased by £REDACTED. The Developers explained that the foreign loss calculations relating to foreign exchange hedges for DONG Energy and ScottishPower have been prepared separately by each party and submitted to Ofgem for review. We understand Ofgem has reviewed the reasonableness of each of the foreign exchange calculations. However the appropriateness of the level at which hedge rates have been set by the Developers is outside of the scope of our work.

INTEREST DURING CONSTRUCTION

- 1.29 Interest during construction, which has increased by £REDACTED, is outside the scope of this review.

2 DIRECT COSTS INVOICE TESTING

FABRICOM

- 2.1 The 3 July 2014 CAT includes an amount of £REDACTED payable to Fabricom for the offshore substation and platform, which is made up as follows:

TABLE REDACTED

Review of amounts paid

- 2.2 We obtained a schedule of all invoices received under the Fabricom contract, which included 13 purchase invoices. This is included at **Appendix 3**.

Date of signed contract

- 2.3 The original contract is dated 12 December 2011.

Vouching to invoices

- 2.4 We agreed all 13 invoices recorded to the schedule to the underlying invoice, with the exception of invoice 12, where an amount of £REDACTED (REDACTED % of €REDACTED) has been withheld until completion. This amount is shown as 'accrued costs' above.

Vouching to purchase ledger

- 2.5 We agreed all 13 invoices recorded on the schedule to the purchase ledger.

Vouching to bank statements

- 2.6 We agreed the payment of all 13 invoices to bank statements, with the exception of the £REDACTED (REDACTED % of €REDACTED) retention noted above.

Accrued costs and estimated costs to complete

- 2.7 The accrued amount of £REDACTED (REDACTED % of €REDACTED) is an amount withheld from invoice number 12, to be paid on completion. The sum has been agreed to the invoice and we have confirmed that it has not yet been paid.
- 2.8 Estimated costs to complete total £REDACTED. This relates to £REDACTED (the remaining REDACTED % of €REDACTED from paragraph 2.7) and a further amount of £REDACTED in relation to an expected variation order. The Developers have explained that the list of additional works has not yet been fully defined at the signing of the variation order and therefore, the variation order does not have a stated amount.

SCALDIS

- 2.9 The 3 July 2014 CAT includes an amount of £REDACTED (€REDACTED) payable to Scaldis for the installation of the offshore substation and platform, which is made up as follows:

TABLE REDACTED

Review of amounts paid

- 2.10 We obtained a schedule of all invoices received under the Scaldis contract, which included four purchase invoices. This is included at **Appendix 4**.

Date of signed contract

- 2.11 The original contract is dated 21 March 2011.

Vouching to invoices

- 2.12 We agreed three of the four invoices recorded to the schedule to the underlying invoice, the exception being invoice number 2013-12 for Milestone 3 at £REDACTED (€REDACTED), to which we have agreed the amount to the application for payment (APP).

Vouching to purchase ledger

- 2.13 We agreed all three invoices and the APP for Milestone 3 recorded on the schedule to the purchase ledger.

Vouching to bank statements

- 2.14 We agreed the payment of all three invoices and the APP for Milestone 3 to bank statements.

NKT

- 2.15 The 3 July 2014 CAT includes an amount of £REDACTED payable to NKT for the submarine and land cable supply, which is made up as follows:

Review of amounts paid

- 2.16 We obtained a schedule of all invoices received under the NKT contract, which included 27 purchase invoices. This is included at **Appendix 5**.

Date of signed contract

- 2.17 The original contract is dated 15 July 2011.

Vouching to invoices

- 2.18 We agreed all 27 invoices recorded to the schedule to the underlying invoice.

Vouching to purchase ledger

- 2.19 We agreed all 27 invoices recorded on the schedule to the purchase ledger.

Vouching to bank statements

- 2.20 We agreed the payment of all 27 invoices to bank statements.

Developers' proposed adjustment

- 2.21 The 3 July 2014 CAT included an amount for the NKT contract of £REDACTED. However, the amount of invoices and accrued/estimated amounts in this contract totals £REDACTED. As such the Developers have proposed an adjustment to the 3 July 2014 CAT of £REDACTED. The Developers have explained that this is an adjustment that will be made in the final transfer value CAT and has been communicated to Ofgem.

Accrued costs and estimated costs to complete

- 2.22 Accrued costs total £REDACTED. These accrued costs related to outstanding payments in respect of payment certificates 28 and 29, which have been agreed to the supporting certificates.
- 2.23 Estimated costs to complete total £REDACTED. This relates to an amount of €REDACTED (£REDACTED) in relation to an amount held back from payment certificate 25 for the completion of a snagging list. Also included in the estimated costs to complete are amounts of £REDACTED from payment certificate number 30, and an amount of £REDACTED from payment certificate number 31.

VSMC

- 2.24 The 3 July 2014 CAT includes an amount of £REDACTED payable to VSMC for the submarine cable installation, which is made up as follows:

TABLE REDACTED

Review of amounts paid

- 2.25 We obtained a schedule of all invoices received under the VSMC contract, which included 20 purchase invoices. This is included at **Appendix 6**.

Date of signed contract

- 2.26 The original contract is undated. The Developers have provided a screenshot from Pondus, the document management system, showing the document was scanned onto the system on 15 July 2011.

Vouching to invoices

2.27 We agreed all 20 invoices recorded to the schedule to the underlying invoice.

Vouching to purchase ledger

2.28 We agreed all 20 invoices recorded on the schedule to the purchase ledger.

Vouching to bank statements

2.29 We agreed the payment of all 20 invoices to bank statements.

Accrued costs

2.30 The Developers have accrued for a variation order of £REDACTED (€REDACTED). This is not material to the Transmission Assets and so has not been considered further.

Estimated costs to complete

2.31 Estimated costs to complete total £REDACTED. This comprises a claim of £REDACTED and further estimates of £REDACTED. The Developers are expecting to pay a claim of £REDACTED in full. This relates to amounts not agreed on previous applications for payments. Estimated costs to complete total £REDACTED. We have agreed the costs to breakdowns provided by the Developers.

ONSHORE SUBSTATION CONTRACTOR

2.32 The 3 July 2014 CAT includes an amount of £REDACTED payable to Onshore Substation Contractor for the offshore substation and platform, which is made up as follows:

TABLE REDACTED

Review of amounts paid

2.33 We obtained a schedule of all invoices received under the Onshore Substation Contractor contract, which included 27 valuation certificate purchase invoices. This is included at **Appendix 7**.

Vouching to invoices

2.34 We agreed all 27 invoices recorded to the schedule to the underlying invoice/valuation certificate.

Vouching to purchase ledger

2.35 We agreed all 27 invoices recorded on the schedule to the purchase ledger.

Vouching to bank statements

2.36 We agreed the payment of all 27 invoices to bank statements.

Estimated costs to complete

2.37 The accrued amount of £REDACTED represents estimated works to complete (less the Developers' proposed adjustment). It is anticipated that the total value of the contract will be around £REDACTED, and as such, the amount not yet invoiced has been provided as an estimate to complete. We have been provided with email correspondence confirming the value to be accrued.

Developers' proposed adjustment

2.38 The Developers have explained that following commercial negotiations with Onshore Substation Contractor, the entire contract value is expected to come in around £REDACTED, a reduction of £REDACTED on the amount included in the cost template. We recommend that Ofgem confirms the final agreed value before transfer.

NGET

2.39 The 3 July 2014 CAT includes an amount of £REDACTED payable to NGET for connection costs, which is made up as follows:

TABLE REDACTED

Review of amounts paid

2.40 We obtained a schedule of all invoices received under the NGET contract, which included 10 purchase invoices. This is included at **Appendix 8**. We note that two invoices (numbers 80360085 for £REDACTED and 80341524 for £REDACTED have been removed from the total NGET cost as they were paid pre-Final Investment Decision (FID).

Vouching to invoices

2.41 We agreed all 10 invoices recorded on the schedule to the underlying invoice.

Vouching to purchase ledger

2.42 We agreed all 10 invoices recorded on the schedule to the purchase ledger.

Vouching to bank statements

2.43 We agreed the payment of all 10 invoices to bank statements.

Accrued amounts and estimated costs to complete

- 2.44 The accrued amount of £REDACTED relates to the outstanding milestone payment. This has not yet been paid as the Developers are awaiting answers to certain technical queries from an NGET unlicensed works contractor (Electricity Alliance North).
- 2.45 We have agreed the estimated costs to complete of £REDACTED to supporting schedules prepared by the Developer. They show the following breakdown of estimates to complete:
- i NGET works £REDACTED
 - ii Maintenance contract £REDACTED (see Developers' proposed adjustment below)
 - iii Telephony equipment £REDACTED.

Developers' proposed adjustment

- 2.46 The Developers have agreed with Ofgem to remove the maintenance contract of £REDACTED from the 3 July 2014 CAT.

3 JV FABRICOM INVOICE REVIEW

TABLE REDACTED

4 SCALDIS SALVAGE & MARINE CONTRACTORS INVOICE REVIEW

TABLE REDACTED

5 NKT CABLES INVOICE REVIEW

TABLE REDACTED

6 VISSER & SMIT MARINE CONTRACTING INVOICE REVIEW

TABLE REDACTED

7 ONSHORE SUBSTATION CONTRACTOR INVOICE REVIEW

TABLE REDACTED

8 NATIONAL GRID ELECTRICITY TRANSMISSION INVOICE REVIEW

TABLE REDACTED

9 INDIRECT COSTS INVOICE TESTING

GEOTECHNICAL INVESTIGATION - FUGRO SEACORE

- 9.1 The 3 July 2014 CAT includes an amount of £REDACTED payable to Fugro Seacore for geotechnical investigation, which is made up as follows:

TABLE REDACTED

Review of amounts paid

- 9.2 We obtained a schedule of all invoices received under the Fugro Seacore contract, which included five purchase invoices. This is included at **Appendix 10**.

Date of signed contract

- 9.3 The original contract is dated 25 May 2010.

Vouching to invoices

- 9.4 We agreed all five invoices recorded to the schedule to the underlying invoice.

Vouching to purchase ledger

- 9.5 We agreed all five invoices recorded on the schedule to the purchase ledger.

Vouching to bank statements

- 9.6 We agreed the payment of all five invoices to screenshots showing the payment generated. The bank statements are not available due to the passage of time.

Internal staff costs

- 9.7 Internal staff costs of £REDACTED are included in the 3 July 2014 CAT. They are not material to the Transmission Assets and therefore, have not been investigated further.

INSURANCE COSTS - AON

- 9.8 The 3 July 2014 CAT includes an amount of £REDACTED payable to AON for insurance costs, which is made up as follows:

TABLE REDACTED

Allocation rate⁴

- 9.9 Insurance costs have been allocated to the Transmission assets in line with the ratio of Transmission Asset equipment costs to total equipment costs. The Developers have provided a calculation of the allocation rate, which is REDACTED%. These costs exclude any resources and external consultancy costs. Only equipment costs and equipment services costs are included for the required calculation. We have reviewed the workings and are satisfied that the allocation rate has been appropriately calculated.

Review of amounts paid

- 9.10 We obtained a schedule of all invoices received under the AON contracts, which included 11 purchase invoices. This is included at **Appendix 11**.

Vouching to invoices

- 9.11 We agreed all 11 invoices recorded to the schedule to the underlying invoice.

Vouching to purchase ledger

- 9.12 We agreed all 11 invoices recorded on the schedule to the purchase ledger.

Vouching to bank statements

- 9.13 We agreed the payment of all 11 invoices to bank statements.

Estimated costs to complete and immaterial difference

- 9.14 Estimated costs to complete of £REDACTED relate primarily to express contract liability cable crossings. This is not material to the Transmission Assets and therefore has not been investigated further.
- 9.15 The costs included within the 3 July 2014 CAT are £REDACTED higher than the anticipated total insurance cost broken down above. This difference is not material to the Transmission Assets and therefore has not been investigated further.

⁴ We understand that the Developers and Ofgem had discussions regarding allocation rates following the submission of the 3 July 2014 CAT

10 GEO-TECH INVOICE REVIEW⁵

TABLE REDACTED

⁵ Geotechnical investigation works - two boreholes and two core penetration tests (CPTs) associated with the transmission assets against a total of 39 boreholes and 121 CPTs for the whole project. The depth for those associated with the transmission assets was greater than for the others, and therefore, were more costly.

11 INSURANCE INVOICE REVIEW

TABLE REDACTED

12 PROJECT MANAGEMENT COSTS

12.1 The Developers have outlined the process for allocating DONG Energy and ScottishPower resource costs to the Transmission Assets. These processes are as follows:

12.2 DONG Energy:

- i timesheet is entered by the employee, for J030 (WoDS) the debit will hit the WBS code, and the credit will then sit on an intercompany payable holding account; and
- ii the intercompany holding account is then cleared and the invoice is then raised from the invoicing company to WoDS (J030).
- iii Note: the above two steps can occur in different months.

12.3 ScottishPower:

- i an invoice is raised on a monthly basis by ScottishPower for hours worked; and
- ii this invoice is posted and paid to ScottishPower as a third party invoice.

12.4 We selected a sample of five individuals (three from DONG Energy and two from Scottish Power) on which to test this process:

- i Employee A ⁶ (DONG Energy);
- ii Employee B (DONG Energy);
- iii Employee C (DONG Energy);
- iv Employee D (ScottishPower); and
- v Employee E (ScottishPower).

⁶ We have a separate note matching names to these identifiers but have not included them in the public report for individual privacy reasons

- 12.5 The Developers have provided details from these five employees' timesheet records. We have traced these to the invoice being raised, posted on the system, and paid as follows:

TABLE REDACTED



www.grant-thornton.co.uk

© 2015 Grant Thornton UK LLP. All rights reserved.

'Grant Thornton' means Grant Thornton UK LLP, a limited liability partnership.

Grant Thornton UK LLP is a member firm within Grant Thornton International Limited (Grant Thornton International). Grant Thornton International and the member firms are not a worldwide partnership. Services are delivered by the member firms independently.