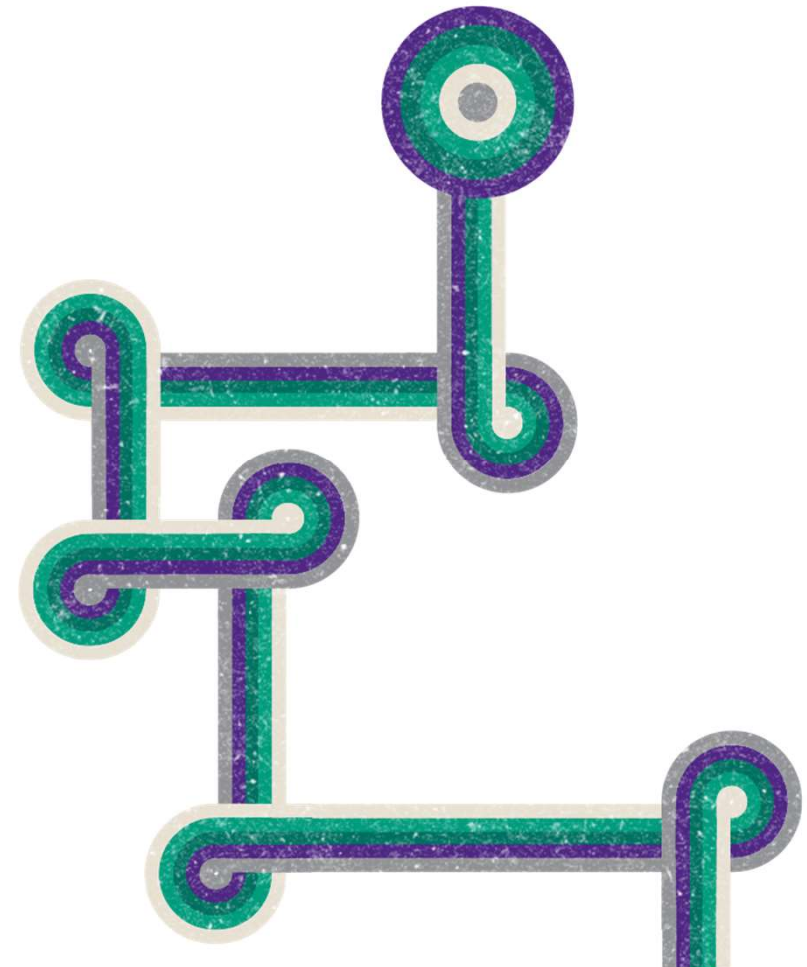


Beatrice Offshore Wind Farm Transmission Assets

Ex-Post Cost Review

3 June 2021





Office of Gas and Electricity Markets
10 South Colonnade
Canary Wharf
London
E14 4PU

3 June 2021

Dear Sirs

Beatrice Offshore Wind Farm Transmission Assets

In accordance with our contract call off agreement dated 30 January 2019 and associated task order, we enclose for your attention our report detailing our findings arising from the Ex-Post Cost Review of the Beatrice Offshore Wind Farm Transmission Assets.

Our conclusions and recommendations are included within the Executive Summary, however for a full understanding it is necessary to read this in conjunction with our detailed commentary set out in sections 2 to 3 and appendices A to G.

This report is confidential and has been prepared exclusively for Ofgem. Whilst other parties may be interested in receiving a copy of this report, we stress that, to the fullest extent permitted by law, we cannot accept any responsibility whatsoever in respect of any reliance that these parties may place on our report in any decision that they may make in relation to the Beatrice Offshore Wind Farm.

Yours faithfully

A handwritten signature in black ink that reads "Grant Thornton UK LLP".

Grant Thornton UK LLP

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Glossary

BoP	Balance of Plant	OFTO	Offshore transmission owner
BOWL / the Wind Farm	Beatrice Offshore Wind Farm	OTM	Offshore transformer modules
CAT	Cost assessment template	PO	Purchase order
CMA	The construction management agreement agreed between BOWL and SSE Renewables	SDIC Power	SDIC Power Holdings Co., Limited
Copenhagen Infrastructure Partners	Copenhagen Infrastructure Partners K/S	Shareholders	SSE Renewables, Copenhagen Infrastructure Partners and SDIC Power
Developer	SSE Renewables	SSEN	Scottish Southern Electricity Network
EPCI	Engineering procurement construction installation	SSE Renewables	SSE Renewables Development (UK) Limited
FA	Finance Administrator	STDL	Siemens Transmission and Distribution Limited
Financial Close	The BOWL Project went through a comprehensive technical and legal due diligence process before Financial Close was reached in May 2016	Transmission Assets	The transmission assets of BOWL
FTV	Final transfer value	WTG	Wind turbine generator
Generation Assets	The generation assets of BOWL		
Grant Thornton	Grant Thornton UK LLP		
ITT	Invitation to tender		
ITV	Indicative transfer value		
Ofgem	The Office of Gas and Electricity Markets		

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Section 1: Executive summary

01. Executive summary

02. Introduction and background

03. The BOWL Ex-Post Cost Review

Executive summary

Introduction

- This report relates to the Beatrice Offshore Wind Farm which is owned by SSE Renewables (40%), Copenhagen Infrastructure Partners (35%) and SDIC Power (25%), via a holding company (100% shareholder of BOWL). SSE Renewables, as lead developer for BOWL is responsible for the general management of the construction and operation phases
- BOWL is a 588MW Wind Farm, located in the Outer Moray Firth, 13.5km off the coast of Caithness, Scotland. The Wind Farm is being built with 84 7MW Siemens turbines situated on pre-piled jacket support structures
- The Wind Farm is primarily comprised of two 220/33kV Offshore Transformer Modules, an interlink cable, two export cables and a 400/220kV onshore substation. All onshore works were completed in Q4 2018 and the offshore works were completed in August 2019

Grant Thornton review

- Grant Thornton has been instructed by Ofgem to review the ex-post cost assessments prepared by the Developer for the Transmission Assets of the Wind Farm (Ex-Post Cost Review)
- The Ex-Post Cost Review has sought to determine whether the Developer has procedures in place for managing directly and indirectly incurred costs, and to carry out certain testing on whether the Developer's latest assessment of the costs of the Transmission Assets have been incurred as stated. The purpose of this review is to:
 - establish the processes and policies undertaken by the Wind Farm for making payments for directly and indirectly incurred costs;
 - in relation to directly incurred costs, for selected contracts, trace expenditure through the purchasing and payments system and reconcile to the costs included on the invoice schedule to the 23 September 2019 CAT;

- in relation to indirectly incurred costs, for a sample of transactions, 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 costs between transmission and generation; and
- compare the costs included in the 23 September 2019 CAT to the ITV at 14 June 2019, and obtain explanations for significant variances arising between the costs at the two dates
- Our review and this report is based upon the cost template submitted to Ofgem dated 23 September 2019 and incorporates information and explanations provided regarding the costs in this version of the cost template, both from our site visit and in correspondence with the Developer, up to 10 March 2020
- The Developer has prepared costs templates setting out their assessment of the costs of the Transmission Assets throughout the development of the Wind Farm. We reviewed an earlier version of the cost template dated 22 November 2018 (the Ex-Ante Cost Review) which culminated in the submission of our report dated 6 March 2019. Our report was considered by Ofgem in establishing the project's ITV

Executive summary (continued)

Transmission Assets cost summary

- The 23 September 2019 CAT is summarised below:

Breakdown of Transmission Assets costs

	CAT Reference	14 June 2019 ITV £	23 September 2019 CAT £	Movement £
Project common costs	CR8	██████████	██████████	██████████
Offshore substation	CR2	██████████	██████████	██████████
Submarine cable supply and installation	CR3	██████████	██████████	██████████
Land cable supply and installation	CR4	██████████	██████████	██████████
Onshore substation	CR5	██████████	██████████	██████████
Reactive substation	CR6	██████████	██████████	██████████
Connection costs	CR7	██████████	██████████	██████████
Transaction costs	CR9	██████████	██████████	██████████
Total capital costs		██████████	██████████	██████████
Interest during construction		██████████	██████████	██████████
		448,359,272	451,968,286	3,609,014

- The 23 September 2019 CAT reflects a net increase in the cost of the Transmission Assets of £3.61 million from the 14 June 2019 ITV, of which £██████████ million relates to capital costs. The principle movements and reasons for the overall increase are detailed below
 - project management costs across all of the cost categories have increased by a total amount of £██████████ as a result of the ongoing works in relation to the OFTO assets
 - contract variations under the STDL contract have increased by £██████████

- £██████████ of spare cable storage costs, previously disallowed at ITV, have been included at FTV. We recommend that Ofgem should review these previously disallowed costs to consider their inclusion at FTV
- The contingency provision has been reduced by £██████████ to £██████████ at FTV. We recommend that Ofgem should review this estimate and whether a contingency provision is still required
- a £██████████ decrease in consents costs and a £██████████ decrease in transaction costs

Summary of findings

The Wind Farm's payment processes

- Ofgem has instructed us to establish the Wind Farm's processes for making payments to suppliers for directly and indirectly incurred costs
- The Developer has confirmed that all large value contracts for the Wind Farm have been subject to a competitive tendering process. Based upon our review it appears the Developer has suitable systems in place for the approval and payment of invoices to contractors, including contract variations, and has 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

- Ofgem has instructed us to carry out certain procedures on the costs payable by the Wind Farm to:
 - STDL/ Nexans
 - Island
 - Seajacks
 - SHL

Executive summary (continued)

Summary of findings (continued)

Directly incurred costs (continued)

- The OFTO allocation of the four contracts totalled £[REDACTED] and represent [REDACTED]% of the total capital costs of £[REDACTED]. These procedures have been carried out as instructed and a summary of findings is set below:

Summary of direct costs testing

	Invoices paid £	Accrued amounts £	Additional costs £	Non-OFTO amounts £	Liquidated damages £	Claims £	Amounts not submitted in 23 September 2019 CAT £	Immaterial difference £	Total per 23 September 2019 CAT £
STDL / Nexans	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Island	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Seajacks	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SHL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Executive summary (continued)

Summary of findings (continued)

Directly incurred costs (continued)

- We have verified that invoices totalling £[REDACTED] million have been paid, representing [REDACTED]% of the selected contracts costs included in the 23 September 2019 CAT. However, we note that this includes £[REDACTED] of non-OFTO related costs, £[REDACTED] of which are costs which have been disallowed by Ofgem at ITV
- The accrued costs of £0.66 million relate to the final payment due on the STDL / Nexans contract. We understand that this amount is subject to ongoing negotiations with the contractor, and therefore we recommend that Ofgem obtains an update from the Developer on amounts payable prior to setting the FTV
- Additional costs of £[REDACTED] relate to £[REDACTED] of fuel costs for the W2W vessel and £[REDACTED] additional barge and tug costs incurred due to OTM fabrication delays and additional heavy lift vessel costs. We note that these amounts are covered by the Liquidated Damages received as a result of [REDACTED] and therefore are not included in the FTV CAT
- Liquidated damages of £[REDACTED] have been retained by the Developer [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- Claims totalling £[REDACTED] have been allocated by the Developer against the total amount payable on the STDL/Nexans contract. These comprise £[REDACTED] in relation to the Jack Up Vessel costs required to rectify a defect. These costs were not a variation to the contract and were claimed back by the Developer separately, along with £[REDACTED] in relation to the use of the W2W vessel and £[REDACTED] of landowner payments which have been reimbursed

- Amounts not submitted in the 23 September 2019 CAT represent a reduction of £[REDACTED] to variations to the STDL/ Nexans contract following the final contract price being determined after the FTV CAT was submitted. As such, we recommend that the FTV CAT be reduced by this amount

Indirectly incurred costs

- Ofgem has instructed us to carry out certain procedures in relation to a sample of indirect costs payable by the Wind Farm
- We have been provided with a breakdown of project management support services costs and verified a sample of these costs to underlying records. The breakdown is in form of a resource planner, an excel spreadsheet which creates the forecasted costs based on the resource plan. The resource planner lists all personnel and project roles, durations and actual rates
- Costs have been allocated to the Transmission Assets based upon the time spent between the transmission and generation businesses by the Developer’s staff and the external contractors who worked on the Wind Farm development
- Our testing in relation to indirect costs (on a random sample of five employees) is summarised below:

Summary of indirect costs testing

Function	December 2018	December 2018	Agreed to timesheet/invoice	Agreed to ledger	Agreed to bank
	Net cost £	OFTO cost £			
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
		[REDACTED]			

Executive summary (continued)

Conclusion

- Our review of the Wind Farm's processes and procedures has indicated that the Developer has suitable policies for the approval and payment of goods and services received, including for the allocation of costs where appropriate between the Transmission and Generation Assets
- On the basis of our review of the information and the 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 indicate that they have been incurred or are due; and
 - that the relevant cost is included within the 23 September 2019 CAT
- This is subject to one proposed adjustment to the cost of the Transmission Assets, being to decrease the cost of the STDL/ Nexans contract (CR3) by £[REDACTED] to reflect the final account of the contract
- This adjustment would result in a revised cost of the Transmission Assets (excluding IDC) of £[REDACTED]
- In addition, we recommend that Ofgem should discuss with the Developer the increase in previously disallowed spare cable storage costs

Section 2: Introduction and background

- 01. Executive summary
- 02. Introduction and background
- 03. The BOWL Ex-Post Cost Review

Introduction

Instructions

- Grant Thornton has been instructed by Ofgem to prepare a report on our review of the cost information and 23 September 2019 CAT for the Transmission Assets of the Wind Farm, prepared for Ofgem by the Developer (the Ex-Post Cost Review). This review is limited to the procedures set out below, and in particular to a sample of costs which have been selected by Ofgem
- This report reflects the 23 September 2019 CAT together with information and explanations received by Grant Thornton up to and including 10 March 2020. Our report does not therefore reflect any information, or the outcome of discussions held after that date
- Throughout the development of the Wind Farm, Ofgem has required the Developer to submit cost templates which set out both the estimated and actual costs that will be or have been incurred in relation to the Transmission Assets
- At the beginning of 2019, we conducted reviews of the cost template for the Transmission Assets, based upon the cost template submitted to Ofgem dated 22 November 2018 (the Ex-Ante Cost Review). At this stage, although construction of the Transmission Assets was largely completed, a contingency provision of £[REDACTED] (which equated to [REDACTED]% of the pre-contingency capital costs) was included in the Grant Thornton ex-ante report (following an adjustment to decrease contingency by £[REDACTED])
- Further to the Ex-Ante Cost Review, Ofgem set the ITV in June 2019. This was based upon the Transmission Assets costs included in our report (dated 6 March 2019), and adjusted for particular issues that had been highlighted in our report and through Ofgem’s review as follows:

Breakdown of Transmission Assets costs

	CAT Reference	6 March 2019 Grant Thornton ex-ante report £	Adjustments per Grant Thornton ex-ante report £	Ofgem ex-ante adjustments £	14 June 2019 ITV £
Project common costs	CR8	[REDACTED]			
Offshore substation	CR2	[REDACTED]			
Submarine cable supply and installation	CR3	[REDACTED]			
Land cable supply and installation	CR4	[REDACTED]			
Onshore substation connection	CR5	[REDACTED]			
Reactive substation	CR6	[REDACTED]			
Connection costs	CR7	[REDACTED]			
Transaction costs	CR9	[REDACTED]			
Total capital costs		[REDACTED]			
Interest during construction		[REDACTED]			
Total		503,697,922	(36,276,661)	(19,061,989)	448,359,272

Introduction (continued) and background

Instructions (continued)

- The main purpose of the Ex-Post Cost review of the Wind Farm's Transmission Assets is to determine whether a sample of costs, selected by Ofgem, which have been included within the 23 September 2019 CAT prepared by the Developer for the Transmission Assets, are appropriately stated, and whether selected costs not directly attributable to either the generation or transmission businesses have been allocated to the Transmission Assets on a reasonable basis. In particular we have been asked to:
 - establish the processes and policies undertaken by BOWL for making payments to suppliers for directly and indirectly incurred costs
 - in relation to directly incurred costs, for selected contracts, trace expenditure from the cash flow schedule to the contract, the invoice and the accounting ledgers of the Wind Farm, and to bank statements, and reconcile the costs included on the invoice schedule to the 23 September 2019 CAT
 - in relation to indirectly incurred costs, for a sample of transactions, trace from the 23 September 2019 CAT to journal entries made on the accounting system, and confirm the amount allocated has been determined as prescribed in the stated allocation methodology, using appropriate metrics in respect of the allocation of costs between transmission and generation
 - compare the costs at 23 September 2019 to the ITV, and obtain explanations for variances between the costs at the two dates
- 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
- This work does not constitute an audit performed in accordance with Auditing Standards
- 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

- The figures and tables in this report has been prepared using Microsoft Excel. The report may therefore contain minor rounding adjustments due to the use of computers for preparing certain calculations

Background

- BOWL is a 588MW offshore wind farm located in the Outer Moray Firth, 13.5km off the coast of Caithness, Scotland. The wind farm is being built with 84 7MW Siemens turbines situated on pre-piled jacket support structures
- The Wind Farm is owned by SSE Renewables (40%), Copenhagen Infrastructure Partners (35%) and SDIC Power (25%), via a holding company (100% shareholder of BOWL). SSE Renewables, as lead developer for BOWL is responsible for the general management of the construction and operation phases
- The Transmission Assets primarily comprise of two 220/33kV OTMs, an interlink cable, two export cables and a 400/220kV onshore substation at Blackhillock, Scotland
- The construction of the Transmission Assets is complete and the Wind Farm became fully operational in June 2019

Section 3: The BOWL Ex-Post Cost Review

01. Executive summary

02. Introduction and background

03. The BOWL Ex-Post Cost Review

The Wind Farm's financial processes

Ex-Post Cost Review

- The main purpose of the Ex-Post Cost review is set out in Section 2
- The 23 September 2019 CAT for the Transmission Assets of the Wind Farm is summarised below:

Breakdown of Transmission Assets costs

	CAT Reference	14 June 2019 ITV £	23 September 2019 CAT £	Movement £
Project common costs	CR8			
Offshore substation	CR2			
Submarine cable supply and installation	CR3			
Land cable supply and installation	CR4			
Onshore substation	CR5			
Reactive substation	CR6			
Connection costs	CR7			
Transaction costs	CR9			
Total capital costs				
Interest during construction				
		448,359,272	451,968,286	3,609,014

Accounting systems

- The Developer has confirmed that there have been no changes in the accounting system since our Ex-Ante Cost Review
- All costs for the Wind Farm are posted to the Harmony accounting system

Cost allocations

- Where project costs are not fully attributable to the Transmission Assets, ie they relate to the Wind Farm as a whole (shared costs), estimates have been made of the proportion of the costs that should be attributed to the Transmission Assets based on the nature of the costs
- Shared costs are typically indirect costs which are for the general benefit of the overall project and include:
 - general project management and administration (allocation rate of █%)
 - costs associated with financing, being the legal advisers costs for the Wind Farm and the lender, and the financial advisor (allocation rate of █%)
 - project insurance (allocation rate of █%)
 - CMA management costs (allocation rate of █%)
 - equipment benefiting both the Transmission and Generation Assets
- Project management resource costs include time spent by both SSE employees and contractors on the Transmission Assets. Internal employees and contractors register their time on a weekly basis in timesheets. Costs are allocated to the OFTO based upon the time spent by each employee/contractor on OFTO activities as a percentage of total time spent by each employee/ contractor

Process for making payments

- Costs are posted to the project ledger through the FA. They are processed against purchase orders which have been raised and allocated to the project:
 - the FA receipts the goods/services when an invoice has been received and has been approved by the relevant commercial and business approvers who verify that the goods/services have been received

The Wind Farm's financial processes (continued) and review of directly incurred costs

Process for making payments (continued)

- an application for payment is issued by the contractor to be approved by BOWL. Contractors apply for payment on a milestone basis. Applications for payments are reviewed by the relevant BOWL Contract Manager. A payment certificate is then issued by BOWL
- the payment certificate is logged on to the system and matched to an invoice on Harmony by the accounts payable team
- The accounts payable team produce a payment run, which highlights invoices that are due to be paid in the next 10 days:
 - the payment run is reviewed and approved by the SSE treasury team
 - costs are split between OFTO and non-OFTO, which is then passed on to the BOWL finance team

Contract variations

- The Developer has confirmed that the process for payment of contract variations is the same as for the general invoice system set out above

Review of directly incurred costs

- Ofgem has selected the following four contracts of directly incurred costs for review:

Summary of directly incurred costs selected for testing

	CAT Reference	23 September 2019 CAT £	% of total Transmission Asset capital costs
STDL / Nexans	CR2,3,4,5,6,8	██████████	%
Island Seajacks	CR2	██████████	%
SHL	CR2	██████████	%
Total		██████████	%

- Ofgem has directed that our work in relation to these contracts covers the following:
 - 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;
 - trace the invoice through the purchasing system;
 - trace the invoice through to the payment system; and
 - trace the payments through to the bank account
- Our testing in relation to these contracts is further detailed below and our findings are summarised in the table on the next page

Invoices paid

- For each of the four contracts selected by Ofgem, we obtained a schedule of all invoices paid under the contract and agreed the invoices recorded on the schedules to the underlying invoice. In addition, we agreed all invoice amounts to the purchase ledger and the payment of each to bank statements
- The detailed testing of invoices paid for each of the suppliers is set out in Appendices B to E
- We note that the schedule of invoices provided in relation to the SHL contract for OTM installation, on which the above testing was carried out, totalled £██████████ (as set out at Appendix E)
- However, the total invoices paid in relation to the SHL contract included in the FTV CAT is £██████████, as set out in the table on the next page. This is as a result of a further £██████████ of shared costs being allocated to the SHL OTM installation costs, in relation to:
 - project management and engineering costs - allocated to the Transmission Assets at ██████% as advised directly by SHL, which we have confirmed to email
 - costs relating to contingency, bank guarantee, marine support and project profit - allocated to the Transmission Assets at ██████%, being the percentage of OTM installation costs as a percentage of the total contract price

Review of directly incurred costs

Review of directly incurred costs (continued)

Invoices paid (continued)

- The Developer has provided a spreadsheet setting out a detailed breakdown of the shared costs, including a schedule of all invoices. We have agreed all amounts to the underlying invoices, however due to the large number of invoices we agreed payment to bank statements on a sample basis
- We note that BOWL entered into hedging arrangements for all non-GBP payments under the EPCI contract with SHL. We have reviewed the applied hedged rates

- Our review of invoices paid by the Developer, relating to the four contracts selected by Ofgem, confirmed payment to the contractor and raised no areas of concern

Accrued amounts

- We understand that the accrued amount in relation to the final payment due on the STDL/ Nexans contract is subject to ongoing negotiations with the contractor. We therefore recommend that Ofgem obtains an update from the Developer on amounts payable prior to setting the FTV

Summary of direct costs testing

	Invoices paid £	Accrued amounts £	Additional costs £	Non-OFTO amounts £	Liquidated damages £	Claims £	Amounts not submitted in 23 September 2019 CAT £	Immaterial difference £	Total per 23 September 2019 CAT £
STDL / Nexans									
Island									
Seajacks									
SHL									
Total									

Review of directly and indirectly incurred costs

Review of directly incurred costs (continued)

Additional costs and Liquidated damages

- Additional costs relate to fuel costs for the W2W vessel (in relation to the Island/ Seajacks contracts) and additional barge and tug costs due to OTM fabrication delays and additional heavy lifting costs (in relation to the SHL contract) incurred as a result of the delays due to STDL/ Nexans. We note that, as shown in the table on the previous page, these amounts (along with additional Commissioning Vessels and BiFab fabrication costs) are covered by the £[REDACTED] of Liquidated Damages [REDACTED] and therefore are not included in the FTV CAT

Non-OFTO amounts

- Amounts not related to the Transmission Assets represent amounts paid to contractors which related to the Generation Assets
- Of the £[REDACTED] of non-OFTO related costs, £[REDACTED] relate to costs which have been disallowed by Ofgem at ITV. For the remainder, we have reviewed the basis for cost allocation to the Transmission Assets or Generation Assets, and are satisfied that the allocations have been performed on a reasonable basis

Claims

- The amount payable by the Developer under the STDL/ Nexans contract has been reduced by £[REDACTED] as a result of the following amounts claimed by the Developer:
 - the Developer explained that £[REDACTED] of Jack Up vessel costs were incurred in order to rectify a defect in the most expedient manner. These costs were not a variation to the contract and were claimed back by the Developer separately
 - £[REDACTED] in relation to the use of the W2W vessel as mutually agreed with the contractor
 - £[REDACTED] of landowner payments which were mutually agreed with the contractor and have been reimbursed

Amounts not submitted

- Amounts not submitted in the 23 September 2019 CAT represent a reduction of £[REDACTED] to variations to the STDL/ Nexans contract following the final contract price being determined after the FTV CAT was submitted
- The Developer has provided a schedule of variations to the contract and we have confirmed a total cost of contract variations of £[REDACTED]. As such, we recommend that the FTV CAT be reduced by £[REDACTED]

Review of indirectly incurred costs

Project management costs

- Ofgem has directed that our work in relation to project management costs covers the following:
 - select a random sample of five employees
 - agree costs from each individuals timesheet to the system
 - agree corresponding payment from the project
- Our detailed testing in relation to project management costs is set out in Appendix F, and our findings are summarised in the below table:

Summary of indirect costs testing

Function	December 2018	December 2018	Agreed to timesheet/invoice	Agreed to ledger	Agreed to bank
	Net cost £	OFTO cost £			
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]			

Review of indirectly incurred costs and movements in the cost assessment

Review of indirectly incurred costs (continued)

Project management costs (continued)

- Our testing of project management support services costs demonstrated that costs have been paid as stated
- For the avoidance of doubt, we have not verified the suitability of the hourly rates (as set out in the CMA) charged to the project by the Developer

Movements in the cost assessment

- The movements between the ITV set on 14 June 2019 and the most recent cost assessment of 23 September 2019 are summarised in the following table:

Breakdown of Transmission Assets costs

	CAT Reference	14 June 2019 ITV £	23 September 2019 CAT £	Movement £
Project common costs	CR8			
Offshore substation	CR2			
Submarine cable supply and installation	CR3			
Land cable supply and installation	CR4			
Onshore substation	CR5			
Reactive substation	CR6			
Connection costs	CR7			
Transaction costs	CR9			
Total capital costs				
Interest during construction				
		448,359,272	451,968,286	3,609,014

- The 23 September 2019 CAT reflects a net increase in the cost of the Transmission Assets of £[REDACTED] from 14 June 2019, £[REDACTED] of which relates to interest during construction
- The principal reasons for the £[REDACTED] net increase in capital costs are detailed below.
 - project management costs have increased by £[REDACTED] (across all of the cost categories) due to the ongoing work in relation to onshore and offshore completion and snagging works
 - contract variations under the STDL contract have increased by £0.68 million (of which £[REDACTED] relates to the offshore substation)
 - the FTV CAT includes £[REDACTED] in relation to spare cable storage costs which were disallowed in full at ITV
 - the release of £[REDACTED] of the contingency provision
 - a £[REDACTED] decrease in consents costs
 - a £[REDACTED] decrease in transaction costs
- The full analysis of the above variances is presented at Appendix G

Impact of Cost Assessment Review

Impact of Cost Assessment Review

- Following our review of the 23 September 2019 CAT, as detailed above, we propose one adjustment to the FTV CAT, being a decrease of £[REDACTED] to CR3 to reflect the final costs of the STDL/ Nexans contract
- This adjustment would result in a revised cost of the Transmission Assets (excluding IDC) of £[REDACTED]

Recommendations for follow up

- As highlighted above, the FTV contains costs in relation to spare cable storage costs that were claimed by the Developer at the ITV stage, but were disallowed by Ofgem for the purposes of setting the ITV. Accordingly we recommend that Ofgem should review these previously disallowed costs to consider whether the grounds for exclusion at the ITV are still applicable

Appendices

A. Restrictions on circulation, disclosures of interest, forms of report and information relied on

B. STDL / Nexans invoice review

C. Island invoice review

D. Seajacks invoice review

E. SHL invoice review

F. Indirect costs review

G. Movements between the cost templates

A. Restrictions on circulation, disclosures of interest, forms of report and information relied on

Restriction on circulation

- 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
- In the preparation of our 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 it is fully entitled to disclose such information to us for inclusion within our report, free of any third party rights or obligations, and that Ofgem will only permit circulation of this report in accordance with any rights to confidentiality on the part of any third party. Any objections to the inclusion of material should be addressed to Ofgem. Accordingly, Grant Thornton acknowledges no duty or obligation to any party in connection to the inclusion in the report of any content referring to any third party material or the accuracy of such material

Disclosures of interest

- To the best of our knowledge, we have no connections with any of the parties or advisors involved in this matter, beyond normal commercial relationships, which would influence our report in any way

Forms of report

- 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

Information relied on

- Grant Thornton has relied upon the following information in reviewing the cost assessment for the Wind Farm's Transmission Assets:
 - the 23 September 2019 CAT, which includes actual costs incurred up to 30 September 2019 and accrued costs that will be incurred from that date up to the closing out of all contracts
 - schedules of invoices prepared for the contracts selected for review by Ofgem, together with copies of invoices, bank statements and ledgers showing payments of the invoices recorded
 - resource planner in relation to project management support services costs and copies of invoices and bank statements showing payments of the related invoices
 - information and explanations provided to us by the Developer up to 10 March 2020. This included discussions and email correspondence with staff responsible for the preparation of the 23 September 2019 CAT

B. STDL / Nexans invoice review

[illegible]

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B. STDL / Nexans invoice review (continued)

[illegible]

C. Island invoice review

[illegible]

D. Seajacks invoice review

[illegible]

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[illegible]

F. Indirect costs review

Project management costs

- The Developer has outlined the process for allocating project management costs to the Transmission Assets. The process is as follows:
 - for internal employees, their time is recorded on a timesheet of the hours incurred, on a weekly basis
 - the cost is allocated to the project based upon the percentage of time spent related to the Transmission Assets as a percentage of total time spent by each employee
 - for contractors, their timesheet is recorded on a timesheet which generates an invoice
 - an invoice is issued with the associated timesheets attached
 - the cost of these staff is allocated based upon the percentage of time spent related to the Transmission Assets as a percentage of total time spent by each contractor
- As instructed by Ofgem, we selected a sample of five individuals for us to test the above process
- The Developer has provided details from these five employees’ actual timesheet records. We have traced these to the invoices being raised, posted on the system and paid as follows:

Summary of indirect costs testing

Function	December 2018 Net cost £	December 2018 OFTO cost £	Agreed to timesheet/invoice	Agreed to ledger	Agreed to bank

G. Movements between the cost templates

- We have been instructed to compare the total Transmission Asset costs as set out in the 23 September 2019 CAT with the total Transmission Asset costs included within the ITV at June 2019, and to obtain explanations for variances between the two dates. The movement is summarised in the table below:

Breakdown of Transmission Assets costs

	CAT Reference	14 June 2019 ITV £	23 September 2019 CAT £	Movement £
Project common costs	CR8			
Offshore substation	CR2			
Submarine cable supply and installation	CR3			
Land cable supply and installation	CR4			
Onshore substation	CR5			
Reactive substation	CR6			
Connection costs	CR7			
Transaction costs	CR9			
Total capital costs				
Interest during construction				
		448,359,272	451,968,286	3,609,014

- We have sought explanations from the Developer for the reasons for the significant movements in each of the cost categories and these are summarised below

Project common costs

- Project common costs have decreased by a net amount of £[REDACTED]. The three significant movements (totalling a net decrease of £[REDACTED]) within this cost category are
 - a £[REDACTED] decrease in the contingency provision. The Developer has reduced the contingency provision from £[REDACTED] at ITV stage to £[REDACTED] in the FTV CAT. We recommend that Ofgem should review this estimate and whether a contingency provision is still required
 - a £[REDACTED] decrease in consents costs as a result of a re-forecast of expenditure by the Developer across the remainder of the project
 - a £[REDACTED] increase in project management costs due to the ongoing works relating to the OFTO assets

Offshore substation

- Offshore substation costs have increased by a net amount of £[REDACTED] as a result of
 - a £[REDACTED] increase in project management costs due to the ongoing work in relation to onshore and offshore completion and snagging works
 - a £[REDACTED] increase in contract variations under the STDL / Nexans contract

Submarine cable supply and installation

- Submarine cable supply and installation costs have increased by a net amount of £[REDACTED], primarily as a result of
 - a £[REDACTED] increase in project management costs due to the ongoing work in relation to onshore and offshore completion and snagging works

G. Movements between the cost templates (continued)

Submarine cable supply and installation (continued)

- a £[REDACTED] increase in spare cable storage costs. The full cost of storage of spare cable (£[REDACTED]) was disallowed at ITV on the basis of being incurred after first power. At FTV, the Developer has included the purchase cost of the bespoke storage baskets for spare cable as these costs were incurred pre-operations in April 2018. Accordingly, we recommend that Ofgem should review these previously disallowed costs to consider their inclusion at FTV

Land cable supply and installation

- Land cable supply and installation costs have increased by a net amount of £[REDACTED]. There have been no significant movements in these costs

Onshore substation

- Onshore substation costs have increased by a net amount of £[REDACTED]. The majority of this increases relates to a £[REDACTED] increase in project management costs due to the ongoing work in relation to onshore and offshore completion and snagging works

Reactive substation

- Reactive substation costs have increased by £[REDACTED] as a result of increased project management costs due to the ongoing works relating to the OFTO assets

Connection costs

- Connection costs have increased by a net amount of £[REDACTED]. There have been no significant movements in these costs

Transaction costs

- Transaction costs have decreased by a net amount of £[REDACTED]. At the ITV stage, the Developer included an estimate of £[REDACTED] for costs associated with the OFTO transaction. At FTV, this estimate has been reduced to £[REDACTED]

- This £[REDACTED] decrease has been offset by the addition of £[REDACTED] for Ofgem costs and an estimate of £[REDACTED] for Watson Farley Williams legal costs

Interest during construction

- Interest during construction has increased by £[REDACTED]. As this is outside the scope of this review no further work has been performed in this area

