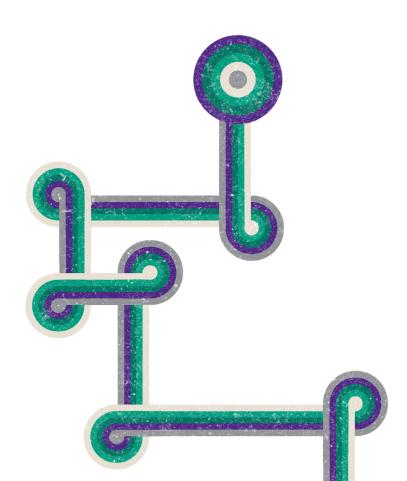


Triton Knoll Offshore Wind Farm Transmission Assets

Ex-Post Cost Review

31 July 2023





Office of Gas and Electricity Markets 10 South Colonnade Canary Wharf London E14 4PU Grant Thornton UK LLP 30 Finsbury Square London EC2P 2YU

T +44 (0)20 7184 4301 www.grantthornton.co.uk

31 July 2023

Dear Sirs

Triton Knoll Offshore Wind Farm Transmission Assets

In accordance with the Call Off Order Form Reference CON/SPEC/2020-15 dated 9 November 2020 between Smith Square Partners LLP and Ofgem, associated task order and Sub-contractor agreement dated 9 November 2020 between Grant Thornton UK LLP and Smith Square Partners LLP, we enclose for your attention our report detailing our findings arising from the Ex-Post Cost Review of the Triton Knoll Offshore Wind Farm Transmission Assets.

Our conclusions and recommendations are included within the Executive Summary set out in section one, 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 I.

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 Triton Knoll Offshore Wind Farm.

31/7/2023

Yours faithfully

Grant Thornton Uk UP

Grant Thornton UK LLP

Chartered Accountants Member firm within Grant Thornton International Ltd Grant Thornton UK LLP is a limited liability partnership registered in England and Wales No: OC307742. Registered office: 30 Finsbury Square, London, EC2A 1AG. A list of members is available from our registered office. Grant Thornton UK LLP is authorised and regulated by the Financial Conduct Authority.

Glossary

САК	Cost Allocation Key	JUB	Jack-Up Barge
CAT	Cost assessment template	Kansai	Kansai Electric Power Co. Inc
CAT Rev A	CAT submitted by the Developer 23 December 2020	kV	Kilovolt
CAT Rev B	Updated CAT submitted by the Developer 28 January 2021	MHI Vestas	MHI Vestas Offshore Wind A/S
CAT Rev C	Updated CAT submitted by the Developer 25 March 2021	MW	Megawatt
CAT Rev D	Final ITV CAT	MSD	Management services deed
CR	Cost reporting	NGET	National Grid Electricity Transmission plc
CTV	Crew Transfer Vessel	NKT	NKT Cables GmbH & Co KG
Developer	TKOWFL	Ofgem	The Office of Gas and Electricity Markets
Devex	Development expenditure	OFTO	Offshore transmission owner
EUR	Euro	OSP	Offshore substation platform
FTV	Final Transfer Value	RWER	RWE Renewables UK Limited, owned by RWE Ag
GBP	Great British Pound	SCADA	Supervisory control and data acquisition system
Generation Assets	The generation assets of Triton Knoll	SHL	SHL Offshore Contractors BV
Grant Thornton	Grant Thornton UK LLP	SOV	Service operation vessels
HV	High voltage	STDL	Siemens Transmission and Distribution Limited
IDC	Interest during construction	TKOWFL	Triton Knoll Offshore Wind Farm Limited
ITV	Indicative transfer value	Transmission	The transmission assets of Triton Knoll
JMS	J Murphy & Sons	Assets	
J-Power	The Electric Power Development Company Limited	Triton Knoll/the Wind Farm	Triton Knoll Offshore Wind Farm

Glossary (continued)

тјв	Transition joint bay
VBNK	Boskalis and NKT joint venture
VO	Variation order
WBS	Work breakdown structure
WTG	Wind turbine generator
3SF	Smulders Smith Steel Foundations B.V.

Contents

1. Section Appendices Page Page 1. Executive summary A. Restrictions on circulation, disclosures of interest, forms of report and 6 2. Introduction and background information relied on 23 11 3. The Triton Knoll Ex-Post Cost Review B. SHL invoice review 24 15 C. 3SF invoice review 25 D. STDL invoice review 27 E. VBNK invoice review 29 F. JMS invoice review 31 G. NGET invoice review 33 H. Indirect costs review 34 I. Movements between the cost templates 35



Section 1: Executive summary

01. Executive summary

02. Introduction and background

03. The Triton Knoll Ex-Post Cost Review



Executive summary

Introduction

- This report relates to the Triton Knoll Offshore Wind Farm which is owned by RWER, J-Power and Kansai. As the Developer, TKOWFL is managing the project construction and operations, with RWER as the service provider to TKOWFL through a MSD entered into by the companies
- Triton Knoll is a 857MW offshore wind farm, occupying approximately 149km² within the Greater Wash strategic area, located off the east coast of England
- The Transmission Assets consist two offshore substations, two 220kV subsea export cable circuits (approximately 50km in length), which connect to two onshore cable circuits (of approximately 57km in length), one onshore substation, and two 400kV export cable circuits connecting the onshore substation to the National Grid Bicker Fen onshore substation
- The construction of the Transmission Assets is complete and the Wind Farm has been fully energised, with the 90th WTG energised on 30 October 2021

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 2 July 2021 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
- compare the costs included in the 2 July 2021 CAT to the ITV at April 2021 (we note that the ITV letter is dated 2 July 2021 however Ofgem have confirmed that the ITV was informally agreed in April 2021), and obtain explanations for significant variances arising between the costs at the two dates
- Our review and this report is based upon the CAT submitted to Ofgem dated 2 July 2021 and incorporates information and explanations provided regarding the costs in this version of the cost template, both from various calls with SPR to discuss the Transmission Assets and processes and in correspondence with the Developer, up to 16 January 2023
- The Developer has prepared CATs setting out their assessment of the costs of the Transmission Assets throughout the development of the Wind Farm. We reviewed the CAT Rev A (the Ex-Ante Cost Review) which culminated in the submission of our report dated 5 July 2021. An earlier draft of our report was considered by Ofgem in establishing the project's ITV

Executive summary (continued)

Transmission Assets cost summary

• The 2 July 2021 CAT is summarised below:

	CAT	April (
	Reference	ITV £	CAT £	£
Offshore substations	CR2			
Submarine cable supply and installation	CR3			
Land cable supply and installation	CR4			
Onshore substation	CR5)
Reactive substation	CR6			
Connection costs	CR7			
Project common costs	CR8			
Transaction costs	CR9			
Total capital costs				
Interest during construction				
Total		576,832,973	585,850,064	9,017,091

- The 2 July 2021 CAT reflects a net increase in the cost of the Transmission Assets of \pounds 9.02 million from the April 2021 ITV. There was an increase in IDC of \pounds whilst capital costs decreased by \pounds This net decrease in capital costs is after the release of \pounds of contingency provisions no longer required at FTV. The principal movements which result in the net increase in capital costs (prior to the release of contingency) of \pounds are:
 - a <u>f</u> increase to the VBNK contract for the supply and installation of export cables

- a £, to the STDL contract for the offshore and onshore substations
- a *f*, in offshore services
- a £, in project management costs
- a £ in Devex costs
- The full analysis of the variances summarised in the table opposite is presented at Appendix I

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 Ex-Ante Cost Review and Ex-Post Cost 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:
 - SHL
 - 3SF
 - STDL
 - VBNK
 - JMS
 - NGET

Executive summary (continued)

Summary of findings (continued)

Directly incurred costs (continued)

• These procedures have been carried out as required and a summary of findings is set out below:

Summary of direct costs testing



- In total, we have verified direct costs payable by the Wind Farm in relation to six contracts, totalling <u>f</u> (100%) of the total capital costs) in relation to the Transmission Assets

- In addition to the paid amounts, accrued amounts of *f*, represent milestones and forecast costs still to be invoiced under the contracts
- We note that the STDL, VBNK, JMS, and NGET contract costs included in the 2 July 2021 CAT include costs totalling f

) that were disallowed by Ofgem at ITV. This is further detailed in Section 3 and Appendix I

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
- The Developer has provided a copy of the resource plan, an Excel spreadsheet which lists all project roles, durations, rates, shift pattern derived estimated working days and inflation (as per the governing MSD), by type of personnel to calculate a forecast total cost by month across the relevant personnel categories
- Costs have been allocated to the Transmission Assets based upon the cost allocation of the role which is either OFTO, Shared or Windfarm (Generation Assets). Each role in the resource plan is assigned an allocation rate dependent on their role. Shared project resources costs are allocated to the Transmission Assets using the updated Resource Based allocation rate (CAK2) of _____% (previously ____% in CAT Rev D). This is further detailed in Section 3
- We have verified a sample of contractor/ internal resources costs to the underlying records, derived from the time booking system (CSS), SAP postings and where relevant, invoices

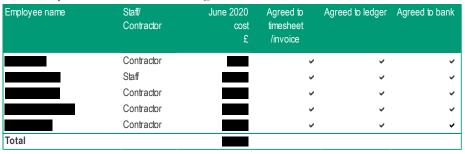
Executive summary (continued)

Summary of findings (continued)

Indirectly incurred costs (continued)

• Our testing in relation to indirect costs (on a random sample of five employees) is summarised below:

Summary of indirect costs testing



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 as evidence that they have been incurred or are due; and
 - that the relevant cost is included within the 2 July 2021 CAT

Recommendations for follow up

- However, we recommend that Ofgem should follow up the below with the Developer:
 - in setting the ITV, the Resource Based allocation rate (CAK2) applied was (and (and (b))) to Pre-FC Resource). In the 2 July 2021 CAT, the Resource Based allocation rate applied is (b). Whilst this rate is much higher than previous projects the rate has been calculated by the Developer based on actual time as recorded in timesheets and therefore we would recommend that Ofgem consider instructing technical advisors to assess the reasonable of the allocation of time within timesheets and hence the allocation rates applied
 - costs totalling £, that were disallowed by Ofgem at ITV have been resubmitted by the Developer in the 2 July 2021 CAT. We recommend that Ofgem should review these previously disallowed costs, and the further supporting information submitted by the Developer at FTV, to consider whether grounds for exclusion at ITV are no longer applicable
- These are further detailed in Section 3

Section 2: Introduction and background

01. Executive summary

02. Introduction and background

03. The Triton Knoll Ex-Post Cost Review



Introduction

Introduction

Instructions

- Grant Thornton has been instructed by Ofgem to prepare a report on our review of the cost information and 2 July 2021 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 on pages 13 and 14, and in particular to a sample of costs which have been selected by Ofgem
- This report reflects the 2 July 2021 CAT together with information and explanations received by Grant Thornton up to and including 16 January 2023. 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
- In early 2021, we conducted a review of the CAT Rev A for the Transmission Assets (the Ex-Ante Cost Review). At that stage, although construction of the Transmission Assets was well under way, as there remained a degree of uncertainty over a number of costs, a contingency provision of £, (which equated to)% of the pre-contingency capital costs) was included in the Grant Thornton ex-ante report. The contingency cost remained unchanged at ITV
- Further to the Ex-Ante Cost Review, Ofgem set the ITV in April 2021. This was based upon the Transmission Assets costs included in our draft report (the final version being dated 5 July 2021), and adjusted for particular issues that had been highlighted in our report (including adjustments to reflect the CAT Rev B costs) and through Ofgem's own review of the CAT Rev B
- We note that, in March 2021, the Developer submitted a third version of the CAT, CAT Rev C, which reallocated shared costs from the submarine cable (CR3) to the OSP (CR2). However, the CAT Rev C was not provided to us during our Ex-Ante Cost Review nor reflected by Ofgem in its ITV letter

- The CAT Rev D is the final ITV CAT which reflects the adjustments set by Ofgem in April 2021 and the CAT Rev C reallocations, along with further adjustments by the Developer (to correct the ITV adjustments set by Grant Thornton and Ofgem which did not take into account the Rev C allocations) as detailed below and in the table on the following page
- The Developer applied the following adjustments in the CAT Rev D
 - reallocation of £ from CR2 to CR3 (to reverse the CAT Rev C reallocation no longer required following the removal of Wind Farm communications, consultancy services costs in setting the ITV)
 - decrease of £ to CR2 costs. In our ex-ante report we suggested an adjustment to CR3 for surplus forecast costs. This adjustment was not applied by the Developer to CR3 but instead to CR2 (to reflect the CAT Rev C reallocation)
 - decrease of £ to CR5. In our ex-ante report we were not able to substantiate £ of shared costs included in CR2. The Developer has adjusted for this and removed these costs from CR5
 - decrease of £, to CR5. In our ex-ante report we were not able to substantiate £, to CR5. In our ex-ante report we were not able to substantiate £, to CR5. In our ex-ante report we were not able to for this and removed these costs included in CR6. The Developer has adjusted for this and removed these costs from CR5
 - increase in contingency costs across the CR categories totalling f_{ij}

Introduction (continued) and background

Introduction (continued)

Breakdown of Transmission Assets costs

	CAT	Grant Thornton	Adjustments p	er Grant Thornton ex-a	nte report	GT Adjustments not	CAT Rev C	Ofgem	CAT Rev D	April 2021
	Reference	ex-ante report (CAT Rev A) £	CAT Rev B adjustments £	Other adjustments £	Unsubstantiated costs £	applied in CAT Rev D £	adjustments £	ex-ante adjustments £	adjustments £	ITV CAT Rev D £
Offshore substations	CR2									
Submarine cable supply and installation	CR3									
Land cable supply and installation	CR4									
Onshore substation connection	CR5									
Reactive substation	CR6									
Connection costs	CR7									
Project common costs	CR8									
Transaction costs	CR9									
Total capital costs										
Interest during construction										
Total		600,743,260								576,832,973

- 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 2 July 2021 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 the Wind Farm 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 2 July 2021 CAT
- in relation to indirectly incurred costs, for a sample of transactions, trace from the 2 July 2021 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

Introduction (continued) and background

Introduction (continued)

- compare the costs in the 2 July 2021 CAT to the costs at 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 conclusions 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 have been prepared using Microsoft Excel. The report may therefore contain minor rounding adjustments due to the use of computers for preparing certain calculations

Background

- TKOWFL is owned by RWER (59%), J-Power (25%) and Kansai (16%). Through an MSD with TKOWFL, RWER has responsibility for managing construction of the Wind Farm and will also continue to manage the operations on behalf of the shareholders
- The Triton Knoll site is approximately 149km², located within the Greater Wash strategic area, off the east coast of England, approximately 20 miles off the coast of Lincolnshire and 28 miles from the coast of north Norfolk. The offshore and onshore electrical infrastructure connect the Wind Farm to the electricity network. Sub-sea export cables from the offshore wind farm make landfall just north of Anderby Creek, with the power entering the electricity network at Bicker Fen Substation, near Boston, via a network of underground cabling

- The 857MW wind farm comprises 90 MHI Vestas V164-9.5 MW WTGs rated at 9.525MW, which are supported by monopole foundations located in water depths of between 15 metres and 24 metres. The WTGs are connected to the two 66kV/220kV OSPs by 66kV array cables, which are arranged in a radial branch formation
- The Transmission Assets primarily comprise two offshore substations (including two 220/66kV transformers and 220kV switchgear), two 220kV subsea export cable circuits (each approximately 50km in length), which connect to two onshore cable circuits (each approximately 57km in length) at the TJB, one onshore substation, and two 400kV export cable circuits (approximately 2km in length) connecting the onshore substation to the existing National Grid Bicker Fen 400kV onshore substation
- The construction of the Transmission Assets is complete and the Wind Farm has been fully energised, with the 90th WTG energised on 30 October 2021

Section 3: The Triton Knoll Ex-Post Cost Review

01. Executive summary

02. Introduction and background

03. The Triton Knoll 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 2 July 2021 CAT for the Transmission Assets of the Wind Farm is summarised below:

Breakdown of Transmission Assets costs

	CAT	April 2021	2 July 2021	Movement	
	Reference	ITV	CAT	£	
		£	£		
Offshore substations					
Submarine cable supply and installation					
Land cable supply and installation					
Onshore substation					
Reactive substation					
Connection costs					
Project common costs					
Transaction costs					
Total capital costs					
Interest during construction					
Total		576,832,973	585,850,064	9,017,091	

Accounting systems

- The Developer has confirmed that there have been no changes in the accounting system since our Ex-Ante Cost Review
- All costs of the Wind Farm are posted to the SAP accounting system, with a WBS coding system to assign costs of the Wind Farm and allocate responsibilities to packages

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 shared costs
- Shared costs are typically indirect costs which are for the general benefit of the overall project and include:
 - general project management and administration
 - project support functions eg procurement, cost control, health and safety
 - general consultants eg legal, environment and consent
 - SCADA equipment benefitting both the Transmission and Generating Assets
- Shared costs are allocated using CAKs to allocate specific shared costs depending on their nature. In order to facilitate sufficiently accurate allocation of costs, cost allocation of shared costs has been performed using several different CAKs
- The Developer has confirmed that the allocation rates for each of the CAKs remain the same as at ITV (and detailed in our ex-ante report) with the exception of the Resource Based CAK (CAK 2) which is applied to all project management costs from the project resource plan that is not directly booked to either Generation or Transmission Assets

Resource based CAK (CAK 2)

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

Cost allocations (continued)

- During the ITV process, Ofgem reviewed the method used to apportion direct and indirect shared costs between the Transmission and Generation Assets and considered that the Resource Based CAK allocation rate of % was too high. Ofgem requested that the Resource Based CAK be recalculated using a 'General Management' allocation rate of %. As a result, at ITV, a Resource Based CAK allocation rate of CAK allocation rate of % was calculated. However, this allocation rate was applied to Pre FC / dexex resource only, with a statement that Post FC resource was still to be reviewed
- In the 2 July 2021 CAT, the Developer has recalculated CAK2 using actual time spent as recorded in timesheets for post FC roles which is calculated as 100%. Within this CAK, the 'General Management' allocation is based upon those roles that can allocate their time. Separately, for pre FC roles an allocation rate of 100% is calculated using the pre-FC invoice breakdown information
- As noted in our ex-ante report, the Resource Based allocation rate derived is higher than the rate seen for resources on previous projects. The Developer explained that as the resources costs for TKOWFL have been allocated based on actual time spent as recorded in timesheets, this should result in a representative allocation rate. We recommend that Ofgem consider instructing technical advisors to assess the reasonableness of the allocation of time within timesheets and hence the derived allocation rates applied

Process for making payments

• The Developer has confirmed that there have been no changes in the process for making payments since our Ex-Ante Cost Review

Review of directly incurred costs

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

Summary of directly incurred costs selected for testing

	CAT Reference	2 July 2021 CAT £	% of total Transmission Asset capital costs
SHL	CR2		
3SF	CR2		
STDL	CR2/4/5/6		
VBNK	CR3		
JMS	CR4		
NGET	CR7		
Total			
Total capital costs per CAT			

- · 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

Review of directly incurred costs

Review of directly incurred costs (continued)

Summary of direct costs testing

	Invoices paid £	Accrued amounts £	Amounts not included in 2 July 2021 CAT £	Non-OFTO amounts £	Total per 2 July 2021 CAT £
SHL					
3SF					
STDL					
VBNK					
JMS					
NGET					
Total					

• Our findings are summarised in the table above and our testing in relation to these contracts is further detailed below

Invoices paid

- For each of the six 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 amounts to the purchase ledger and the payment of each to bank statements
- The detailed testing of invoices paid for each of the six contracts is set out in Appendices B to G

• Our review of invoices paid by the Developer (totalling £, _____), relating to the six contracts selected by Ofgem, confirmed payment to the contractor

Accrued amounts

- Accrued amounts totalling <u>f</u> represent the remaining costs payable in relation to each of the contracts as follows:
 - STDL f_{max} , comprising f_{max} for milestones to be completed and a further f_{max} of VOs still to be invoiced and paid
 - VBNK £ of VOs to be certified (including £, of Covid related costs)
 - JMS <u>J</u> in relation to one remaining milestone

Non-OFTO amounts

• Amounts not related to the Transmission Assets represent amounts paid to contractors which related to the Generation Assets

Costs disallowed at ITV

- We note that the 2 July 2021 CAT includes £ of costs that were disallowed by Ofgem at ITV and have been resubmitted by the Developer at FTV.
- \pounds relates to forecast CTV costs that were not expected to be incurred at ITV, \pounds relates to post constriction crop compensation costs (CR4) and \pounds of costs relates to the six contracts selected for direct costs testing as detailed on the following page and Appendix I

Review of directly incurred costs (continued) and review of indirectly incurred costs

Review of directly incurred costs (continued)

Costs disallowed at ITV (continued)

- STDL costs totalling f_{i} comprising:
 - of acceleration payments;
 - in relation to a settlement agreement; and
 - in relation to VO053 (which relates to Generation Assets and the Developer confirmed has been removed from the 2 July 2021 CAT and therefore the adjustment at ITV is no longer required)
- VBNK costs totalling *f* comprising: •
 - in relation to VO005 for the storage of spare cable basket;
 - in relation to VO006 for wet storage;
 - in relation to VO007 for type test support services; and
 - in relation to fibre optic cable usage attributed to Generation Assets
- JMS costs totalling f
 - comprising:
 - in relation to VO016 for National Grid Gas deed of consent delay. (In the ITV letter, Ofgem noted that expected permission was not granted before the works started);
 - in relation to VO018 for Network Rail HDD's; Concrete Marker Posts (In the ITV letter, Ofgem noted that the permit to drill was not ready before the works began); and
 - in relation to fibre optic cable usage attributed to Generation Assets
- NGET costs totalling f. relate to VO003, VO006, VO007 and VO008 which were disallowed by Ofgem at ITV as related to late modifications after signing the contract
- These amounts are further detailed in Appendix I •

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 invoice payment to bank statements
- Our detailed testing in relation to project management costs is set out in Appendix H, • and our findings are summarised in the below table:

Summary of indirect costs testing

Employee name	Staff/ Contractor	June 2020 cost £	Agreed to timesheet /invoice	Agreed to ledger	Agreed to bank
	Contractor		~	<i>~</i>	~
	Staff		~	v	~
	Contractor		~	~	~
	Contractor		~	¥	~
	Contractor		~	~	~
Total					

- 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 MSD) charged to the project by the Developer

Movements in the cost assessment

Movements in the cost assessment

• The movements between the ITV set in April 2021 and the most recent cost assessment in the 16 July 2020 CAT are summarised in the following table:

Breakdown of Transmission Assets costs

	CAT Reference	April 2021 ITV £	2 July 2021 CAT £	Movement £
Offshore substations	CR2			
Submarine cable supply and installation	CR3			
Land cable supply and installation	CR4			
Onshore substation	CR5			
Reactive substation	CR6			
Connection costs	CR7			
Project common costs	CR8			
Transaction costs	CR9			
Total capital costs				
Interest during construction				
Total		576,832,973	585,850,064	9,017,091

- The 2 July 2021 CAT reflects a net increase in the cost of the Transmission Assets of £9.02 million from the April 2021 ITV, as a result of a £ in IDC and a £ in capital costs
- The net decrease in capital costs of £ is after the release of all contingency provisions, totalling £ is after the rolonger required at FTV. Excluding the contingency release, capital costs have increased by £ is after the principal reasons for this net increase are detailed opposite

- a £ to the VBNK contract for the supply and installation of export cables as a result of £ additional contract variations (including £ of costs disallowed at ITV which have been resubmitted in the FTV CAT) and £ LDs
- a $\underline{f}_{\underline{f}}$ to the STDL contract for the offshore and onshore substations, primarily as a result of $\underline{f}_{\underline{f}}$ additional OFTO contract variations and $\underline{f}_{\underline{f}}$ of costs disallowed at ITV which have been resubmitted in the FTV CAT
- a <u>f</u> increase in offshore services including a <u>f</u> increase in CTV costs, of which <u>f</u> relates to costs disallowed at ITV which have been resubmitted in the FTV CAT)
- an overall increase of £ an in project management costs, primarily as a result of a revised budget and updated CAK 2 allocation rate (as detailed above) based upon actual time incurred up to December 2020
- a £ in Devex costs as a result of a £ in resource costs (primarily as a result of moving from 60%, applied by Ofgem to the ITV, to 60% being the developer's revised allocation applied at FTV for pre FC resource based upon their historic split of invoiced resource in that period), a £ of Dalcour Maclaren payments incorrectly omitted at ITV
- The full analysis of the variances is presented at Appendix I

Impact of Cost Assessment Review

Impact of Cost Assessment Review

• Following our review of the 2 July 2021 CAT, as detailed above, and subject to the recommendations for follow up below, we do not consider that any adjustments are required to the CAT. However, we recommend that Ofgem obtain further explanations from the Developer in relation to the below

Recommendations for follow up

- As highlighted above and further detailed in Appendix I, several costs disallowed at ITV have been resubmitted in the 2 July 2021 CAT. This includes *f* and *f* of forecast CTV costs that were not expected to be incurred at ITV, *f* relating to post constriction crop compensation costs (CR4) and *f* relating to the six contracts selected for direct costs. We recommend that Ofgem should review these previously disallowed costs and updated information provided by the Developer to consider whether the grounds for exclusion at ITV are still applicable

Appendices

- A. Restrictions on circulation, disclosures of interest, forms of report and information relied on
- B. SHL invoice review
- C. 3SF invoice review
- D. STDL invoice review
- E. VBNK invoice review
- F. JMS invoice review
- G. NGET invoice review
- H. Indirect costs review
- I. 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:
 - Triton Knoll Information Memorandum 2020
 - information contained in the Ofgem developer data room for the Triton Knoll project, including:
 - the 2 July 2021 CAT, which includes actual costs incurred up to 31 May 2021 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
 - schedules providing supporting information for the internal project management costs with copies of invoices (where applicable) and bank statements showing payments of the costs
 - information and explanations provided to us by the Developer. This included various calls with the Developer to discuss the Transmission Assets and processes, and subsequent email correspondence, up to 16 January 2023, with staff responsible for the preparation of the 2 July 2021 CAT

B. SHL invoice review

Payment certificate no.	Invoice no.	Invoice date	Milestones £	Variations £	Invoice value (net) £	Date paid	Agreed to invoice	Agreed to ledger	Agreed to bank statement
							~	<u> </u>	
1							•	Ý	Ý
2							v	•	*
3							•	•	•
4							v	Ŷ	Ý
5							v	~	*
6							✓	v	~
7							¥	~	¥
8							~	<i>•</i>	~
9							v	v	~
10							~	~	¥
11							v	v	¥
									يى
12							•	•	Ť
13							•	Ý	Ŷ
14							v	•	v
15							v	v	¥.
16 17							v 	Ŷ	Ç.
18							*	÷	÷
19									
20							v 	Ŷ	Ç.
20							~	÷	÷
22							· •	· · · · · · · · · · · · · · · · · · ·	· · ·
23							v	~	~
24							<i>~</i>	~	<u>с</u>
	Total								

C. 3SF invoice review

Payment certificate no.	Invoice no.	Invoice date	Milestones EUR	Variations EUR	Invoice value (net) EUR	Invoice value (net) £	Date paid	Agreed to invoice	Agreed to ledger	Agreed to bank statement
1								¥	✓	~
2								¥	~	~
3								v	✓	~
4								~	~	~
5								~	✓	~
6								~	✓	~
7								¥	~	~
0								~	~	~
0										
9										
10								v	~	Ŭ,
11								v	~	~
12								~	✓	~
13								¥	✓	~
14								~	~	~
15								v	✓	~
16								¥	~	~
17								~	~	~
18						<u>.</u>		*	\checkmark	~
19								~	~	~
20								~	~	~
21								~	✓	~
22								•	~	~
23								•	V	~
24								•	V	V
25								V	¥	~

C. 3SF invoice review (continued)

Payment certificate no.	Invoice no.	Invoice date	Milestones EUR	Variations EUR	Invoice value (net) EUR	Invoice value (net) £	Date paid	Agreed to invoice	Agreed to ledger	Agreed to bank statement
26								~	v	~
27								~	v	~
28								~	~	~
29								~	~	~
30								~	~	~
31								~	<i>~</i>	~
32								~	~	~
33								~	~	~
	Total									

D. STDL invoice review

Payment certificate no.	Invoice no. Inv	roice date N	filestones £	Variations £	Adjustments/ Retention £	Invoice value (net) £	Date paid A	greed to invoice	Agreed to ledger	Agreed to bank statement
1								V	¥	~
2								~	~	~
3								~	v	~
4								~	¥	~
5								~	v	~
6								~	~	~
7								~	v	~
8								~	¥	~
Q								~	v	
3 10								~	~	
									J.	·
11								•	¥	~
12								•	•	~
13								~	v	~
14								~	•	~
15								•	•	~
16 17								÷	÷.	
18								~	¥	, i
									J.	Ý
18					8					~
19 20								÷	÷.	~
20								~	~	*
22								~	v	, i i i i i i i i i i i i i i i i i i i
23								v	~	
24								v	v	~
25								v	¥	V

Appendices

D. STDL invoice review (continued)

Payment certificate no.	Invoice no.	Invoice date	Milestones £	Variations £	Adjustments/ Retention £	Invoice value (net) £	Date paid	Agreed to invoice	Agreed to ledger	Agreed to bank statement
26								~	v	~
27								✓	v	~
28								~	v	~
29								~	v	~
30								~	v	~
31								~	v	~
32								~	v	~
33								~	v	~
34								~	v	~
35								~	v	~
36								~	v	~
37								~	v	~
38								~	v	~
39								~	v	~
40								~	v	~
41								~	v	~
	Total									

E. VBNK invoice review

Payment certificate no.	Invoice no.	Invoice				Agreed to invoice	Agreed to ledger	Agreed to bank statement
1EDWA						×	V	¥
2 EDWA						~	~	~
1						¥	v	~
3						Ý	~	~
4						×	~	~
5						~	~	~
6						¥	~	~
7						¥	v	~
7						~	~	~
8						~	~	~
8						¥	~	~
9						¥	~	~
10						~	v	~
11						~	v	~
12						l Ý	v	~
13						<i>,</i>	~	*
13					B arana	 ~	v	~
14						- -	v	~
								~
14						j	Ť	Ť
15						l Š	*	ý
16						, j	•	Ť
16						, v	÷	Ŭ
17 17						Ť	Č	Ť

Appendices

E. VBNK invoice review (continued)

Payment certificate	Invoice no.	Invoice date	Milestones Invoice value (net)	Milestones	Variations Invoice value (net) Invoice value (net)	Date paid Agreed to invoice	Agreed to ledger	
no.			£ £	EUR	EUR EUR £			statement
18						↓	~	~
18						¥	~	~
19						¥	~	~
19						¥	~	~
19						¥	~	~
20						¥	~	~
20						¥	~	~
20						¥	~	~
21						¥	~	~
22						¥	~	~
22						¥	~	~
23						¥	~	~
23						¥	~	~
23						×	v	~
24						✓	v	~
25						✓	v	~
	Total							

F. JMS invoice review

Payment certificate no.	Invoice no. Invoice dat	e Milestones £	Variations £	Invoice value (net) £	Invoice gross value £	Date paid	Agreed to invoice	Agreed to ledger	Agreed to bank statement
1							×	v	×
2							~	~	~
3							~	~	~
4							~	~	~
5							~	~	~
6							¥	~	~
7							~	~	~
8							¥	~	~
9							¥	~	~
10							¥	~	~
11							¥	~	~
12							¥	~	~
13							¥	~	v
14							¥	~	~
15							¥	~	v
16							~	~	v
17							v	~	v
18							~	~	v
19							v	~	v
20							~	~	~
20							<i>v</i>	~	~
22							<i>~</i>	~	~
23							<i>~</i>	~	~
23							v	~	~
24 24a							v	~	v.

F. JMS invoice review (continued)

Payment certificate no.	Invoice no.	Invoice date	Milestones £	Variations £	Invoice value (net) £	Date paid	Agreed to invoice	Agreed to ledger	Agreed to bank statement
25							¥	~	V
26							~	~	~
27							✓	✓	v
28							v	~	v
29							v	~	v
30							v	~	v
31							v	~	<i></i>
32							v	~	<i></i>
33							v	~	<i></i>
34							v	~	<i></i>
35							v	~	~
36							v	~	~
37									
38							v	~	<i>.</i>
39							~	~	<i>.</i>
40							~	~	~
41							~	~	<i>.</i>
	Total								

G. NGET invoice review

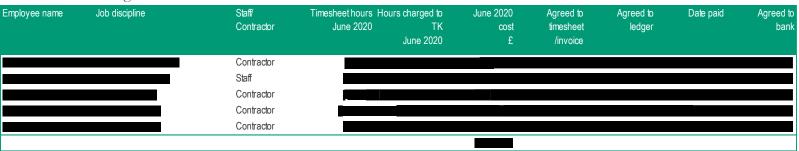
Payment certificate no.	Invoice no.	Invoice date	Milestones £	Variations £	Invoice value (net) £	Date paid	Agreed to invoice	Agreed to ledger	Agreed to bank statement
1							~	¥	~
2							✓	¥	¥
3							✓	¥	¥
4							✓	¥	¥
5							✓	¥	¥
5							~	~	¥
6							~	v	¥
7							~	•	v
8							~	v	v
	Total								

H. 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:
 - the resource plan, which includes both staff (resource provided internally by RWER for specific services under the MSD agreement with TKOWFL) and contractors, is updated for actuals every three months, by each individual and activity during the construction of the Wind Farm;
 - each role in the resource plan is also assigned an estimated OFTO percentage allocation, based upon their role. These percentages are subsequently "firmedup" with actual OFTO allocations based upon the data from the internal time reporting system, CSS, which allows employees to allocate their time to specific work streams;
 - staff costs are charged using the hours worked (capped annually) and the applicable rate for that resource as set out in the MSD

- contractor time-bookings are downloaded from SAP and a goods received note is raised using the contract data (rate, time, agency mark-up). This is then matched against the contractor invoices received by RWER. The contractors costs are re-charged at cost plus .
- in terms of payment, quarterly costs from the resource plan are billed and paid in arrears;
- All invoices are settled by RWER and latterly billed back to TKOWFL
- As instructed by Ofgem, we selected a sample of five individuals to test the above process
- The Developer has provided details from these five individuals' timesheet records. We have traced these to the posting on the system and, for contractors, to the invoice and being paid as set out in the table below



Indirect costs testing

I. Movements between the cost templates

• We have been instructed to compare the total Transmission Asset costs as set out in the 2 July 2021 CAT with the total Transmission Asset costs included within the ITV at 2 June 2021, and to obtain explanations for cost variances between the two dates. The movement is summarised in the table below:

Breakdown of Transmission Assets costs

	CAT Reference	April 2021 ITV £	2 July 2021 CAT £	Movement £
Offshore substations	CR2			
Submarine cable supply and installation	CR3			
Land cable supply and installation	CR4			
Onshore substation	CR5			
Reactive substation	CR6			
Connection costs	CR7			
Project common costs	CR8			
Transaction costs	CR9			
Total capital costs				
Interest during construction				
Total		576,832,973	585,850,064	9,017,091

• We have sought explanations from the Developer for the significant movements in each of the cost categories and these are set out opposite and on the following two pages

Offshore substation

- Offshore substation costs have increased by a net amount of *f*, primarily as a result of:
 - STDL contract costs (CR2) have increased by £ due to additional contract variations raised since ITV. As set out in Section 3 above, we have agreed that the STDL costs included in the 2 July 2021 CAT reflect the final contract costs of the contract (with the exception of the £ due to additional still to be invoiced)
 - Offshore services have increased by £ , with a £ , with a £ , in SOV costs, a £ , in CTV costs, of which £ , has been resubmitted in the FTV CAT following removal at ITV (as the forecast costs were not expected to be incurred at ITV but the Developer has explained that they are now fully justified)
 - project management costs (CR2) have increased by £, primarily as a result of a revised budget and updated CAK 2 allocation rate (as detailed in Section 3 above)
 - the release of the *f* contingency provision no longer required at FTV

Submarine cable supply and installation

- - a £, for the version of the version of the supply and installation of export cables as a result of £, for the supply and installation (including £, for the supply and version of costs in relation to VO006, VO007 and VO0016 disallowed at ITV which have been resubmitted in the FTV CAT) and £, for the version of version of the version of version of
 - project management costs (CR3) have increased by £ primarily as a result of a revised budget and updated CAK 2 allocation rate (as detailed in Section 3 above)

I. Movements between the cost templates (continued)

Submarine cable supply and installation (continued)

- the release of the *f* contingency provision no longer required at FTV

Land cable supply and installation

- Land cable supply and installation costs have decreased by a net amount of *f*, primarily as a result of:
 - JMS contract costs have increased due to £ for a state of costs, in relation to VO016, VO018 and fibre optic cable usage, disallowed at ITV which have been resubmitted in the FTV CAT. This increase in costs has been partially offset by the recovery of £. As set out in Section 3 above, we have agreed that the JMS costs included in the 2 July 2021 CAT reflect the final contract costs of the contract (with the exception of £. in relation to one remaining milestone)
 - a £, increase in relation to the onshore cable joint type test carried out by RINA
 - a £ increase due to post constriction crop compensation costs disallowed at ITV which have been resubmitted in the FTV CAT
 - project management costs (CR4) have increased by £ marily as a result of a revised budget and updated CAK 2 allocation rate (as detailed in Section 3 above)
 - a £, decrease due to a reallocation of consents costs (CR4) to legal costs (CR8)
 - the release of the *f* contingency provision no longer required at FTV

Onshore substation

- Onshore substation costs have decreased by a net amount of \underline{f} , primarily as a result of:
 - the release of the $f_{\rm eff}$ contingency provision no longer required at FTV

- project management costs (CR5) have decreased by £ primarily as a result of a revised budget and updated CAK 2 allocation rate (as detailed in Section 3 above)
- STDL contract costs (CR5) have increased by \underline{f} , \underline{f} , as a result of \underline{f} , additional contract variations raised since ITV and \underline{f} of costs disallowed at ITV which have been resubmitted in the FTV CAT, which have been partially offset by a decrease of \underline{f} , \underline{f} of landscaping costs (to reduce the budget to \underline{f} , \underline{f}

Reactive substation

• Reactive substation costs have increased by a net amount of *f*, as such there have been no significant movements in these costs

Connection costs

- Connection costs have decreased by a net amount of £, primarily as a result of the release of the £, contingency provision no longer required at FTV
- We note that NGET costs totalling £, the presence of the total of total of the total of total of

Project common costs

- Project common costs have increased by a net amount of *f*, primarily as a result of:
 - a £ increase in Devex costs as a result of a £ increase in resource costs (primarily as a result of moving from 100%, applied by Ofgem to the ITV, to 100% being the developer's revised allocation applied at FTV for pre FC resource based upon their historic split of invoiced resource in that period), a £ increase due to reallocated offshore site costs and £ of Dalcour Maclaren payments incorrectly omitted at ITV

I. Movements between the cost templates (continued)

Project common costs (continued)

- a net decrease of £ for the inproject management costs of which the significant movements were a £ for the inproject management costs (primarily as a result of a revised budget and updated CAK 2 allocation rate (as detailed above) based upon actual time incurred up to December 2020), a £ for the inproject management costs (CR4)
- the release of the f_{max} contingency provision no longer required at FTV

Transaction costs

• Transaction costs have increased by a net amount of *f*, **as such there have been no significant movements in these costs**

IDC

• IDC has increased by £, . As this is outside the scope of this review no further work has been performed in this area



© 2023 Grant Thornton UK LLP. All rights reserved.

'Grant Thornton' refers to the brand under which the Grant Thornton member firms provide assurance, tax and advisory services to their clients and/or refers to one or more member firms, as the context requires. Grant Thornton UK LLP is a member firm of Grant Thornton International Ltd (GTIL). GTIL and the member firms are not a worldwide partnership. GTIL and each member firm is a separate legal entity. Services are delivered by the member firms. GTIL does not provide services to clients. GTIL and its member firms are not agents of, and do not obligate, one another and are not liable for one another's acts or omissions.

grantthornton.co.uk