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Decision

Offshore Transmission: Cost Assessment for the Moray East Offshore Windfarm Transmission Assets

Publication date:	15 February 2024	**Contact:**	Phillip Heyden, Head of Offshore Cost Assessment
		Team:	Offshore Cost Assessment
		Tel:	020 7901 0516
		Email:	Phillip.Heyden@ofgem.gov.uk

This document sets out the cost assessment for Moray East offshore transmission assets and the key principles that we have applied in our cost assessment process for the seventh tender round. The Authority has granted an offshore transmission licence to TC Moray East OFTO Limited, a consortium of Transmission Capital Partners Limited Partnership.

TC Moray East OFTO Limited has incorporated the assessed transfer value as set out in this report into its tender revenue stream. The appendices published alongside this report are available on the Ofgem website. They include correspondence between Ofgem and the Developer as part of the cost assessment process and external consultants' reports.

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Executive summary

This report sets out the cost assessment work that Ofgem has undertaken from the Invitation to Tender (**ITT**) stage of the Tender Process in relation to the Moray East Offshore Windfarm (**Moray East**) Transmission Assets (the **Transmission Assets**). This work has been used by the Authority[1] to derive the Assessed Costs and will be used to set the Final Transfer Value (**FTV**) for the Transmission Assets. Unless otherwise stated or defined in-text, capitalised terms in this report are defined in the Glossary at Appendix 1.

The cost assessment process involves the below three key stages:

- The Initial Transfer Value (**InTV**) for the Transmission Assets was published in the preliminary information memorandum on 30 November 2020[2] and was set at £720.0m in October 2020, based on information provided to Ofgem by Moray East Offshore Windfarm Limited (for the purposes of this report, the **Developer**);

- The Developer submitted a revised cost assessment template (**CAT**) on 29 January 2021 and subsequently provided an updated version on 05 February 2021 (**CAT RevA**) and a further update (**CAT RevB**) on 19 February 2021. A fourth version of the CAT was submitted (**CAT RevC**) on 19 March 2021. CAT RevC was used both for the Ofgem analysis of submitted costs and the forensic analysis by our forensic independent accounting consultants Grant Thornton (**GT**). The other versions were not used for the analysis. Ofgem reviewed and analysed the cost information and calculated the Indicative Transfer Value (**ITV**) as £647.8m. This updated calculation was communicated to the Developer in September 2021 and the formal ITV letter issued in October 2021; and

- The Developer submitted a further CAT dated 09 February 2022 with a value of £695.5m (the **FTV CAT**). Ofgem reviewed this further cost information to calculate the final assessment of costs as £666.1m (the **Assessed Costs**). This is a reduction of £29.4m from the submitted FTV CAT. It is intended that the incoming Offshore Transmission Owner (**OFTO**) will be able to obtain the full benefit of all available

[1] References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work.
[2] https://www.ofgem.gov.uk/publications/offshore-transmission-tr7-generic-preliminary-information-memorandum

capital allowances. Therefore, the final Assessed Costs of £666.1m is the amount that will be used to set the Final Transfer Value (**FTV**) at licence grant.

The key components of the InTV, the ITV and the FTV, together with the Developer's submission (the **FTV CAT**) are set out in Table 1 below.

Table 1: Summary of costs components*

Category	InTV	ITV	Developer submitted cost for FTV review (FTV CAT)	FTV
	Oct 20 (£m)	Oct 21 (£m)	Feb 22 (£m)	Nov 22 (£m)
Capex	517.4	488.7	547.3	533.7
Other	79.9	67.0	65.6	57.5
Contingency	48.5	26.3	4.9	4.8
IDC	72.6	64.2	76.0	68.4
Transaction	1.6	1.7	1.7	1.7
Total	720.0	647.8	695.5	666.1

**these figures may not add to totals due to rounding*

Sections 3.30 – 3.106 of this report set out details of the Assessed Costs and any reductions made to the values submitted in the FTV CAT and against the ITV. The main increases/decreases in the Assessed Costs, against the ITV figures, are as follows:

a) the capital expenditure (**Capex**) component of the FTV has increased by £45.0m;
b) the other costs have decreased by £9.5m;
c) the ITV contingency amount of £26.3m was removed in its entirety, however an additional £4.8m contingency value has been included in the FTV. This is in relation to the 400kV upgrade works that the Developer is completing;
d) the Interest During Construction (**IDC**) amount increased by £4.2m; and
e) the transaction costs have increased by £2k (not shown due to rounding).

Below we summarise the main increases and decreases to each cost category as shown in Table 1 and detailed in sections 3.30 – 3.106. Please note that the figures set out in this section have been rounded.

Capital expenditure (Capex)

The Capex of the FTV has increased by £45.0m since ITV. The main changes are:

a) an increase in costs submitted by the Developer for costs excluded at ITV for benchmarking values being re-submitted;
b) additional costs for 400kv upgrade works that were unavailable at the ITV stage;
c) due to estimated costs at the ITV being made firm; and
d) for land costs re-allocated from the development cost category.

Other costs

The other costs at FTV have decreased by £9.5m since ITV. The decrease is mainly due to:

a) a decrease resulting from the removal of financing costs that are covered by IDC allowances;
b) a decrease in project management costs that were adjusted to reflect the generic project allocation;
c) a decrease in costs submitted by the Developer;
d) a decrease in external project management costs to remove mark up; and
e) other minor adjustments.

Contingency

We allowed a value of £26.3m for contingency in the ITV. This has now been removed in its entirety as it has been released or realised at this stage of the transaction. However, due to the 400kV upgrade works that the Developer is completing, an upfront contingency value has been included in the FTV of £4.8m. To determine this value, we undertook a qualitative bottom-up assessment of the Developer's risk register and excluded risks that we consider are ineligible for inclusion in the FTV. We consider that this risk value and the project management allowance we have accepted provide an appropriate level of cover against the risk profile of the 400kV upgrade works.

Interest During Construction (IDC)

The IDC amount has increased by £4.2m since the ITV. This overall increase in IDC is the result of negative adjustments (for disallowed costs, extended duration prior to Financial Investment Decision (**FID**), and changes to the timing of when assets are considered available for use) and increased costs submitted by the Developer at FTV.

Transaction costs

Transaction costs have been assessed at £1.7m. The transaction costs are composed of both internal and external resource costs arising from the Developer's participation in the Tender Process. These have seen a decrease since the ITV of £2k.

Assessed Costs and FTV for the Transmission Assets

In accordance with Regulation 4(2)(b) of the Tender Regulations, the Assessed Costs of the Transmission Assets are £666,094,752. The Assessed Costs will be used as the FTV in accordance with Regulation 4(8) of the Tender Regulations.

1. Introduction

Context and related publications

1.1. In 2009, the Government introduced the regulatory regime for offshore electricity transmission to connect significant amounts of renewable offshore generation to the onshore electricity network (the **OFTO regime**).

1.2. Offshore Transmission Owners (**OFTOs**) are appointed through a competitive tender process (the **Tender Process**). OFTOs are granted an offshore transmission licence (**OFTO Licence**) with a fixed revenue stream for a specified time.

1.3. From the outset, the OFTO regime has encouraged innovation and attracted new sources of technical expertise and finance, whilst ensuring that grid connections are delivered efficiently and effectively.

1.4. The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2015 (the **Tender Regulations**) provide the legal framework for the Tender Process. The Tender Regulations require the Authority to calculate, based on all relevant information available to it, the economic and efficient costs which ought to be, or ought to have been, incurred in connection with developing and constructing the offshore Transmission Assets in respect of a qualifying project.

1.5. Where the Authority has determined to grant an OFTO Licence for a particular project, the assessment of costs must be used by the Authority to determine the value of the Transmission Assets to be transferred to the successful bidder. This value will be reflected in the revenue stream in the granted OFTO Licence.

1.6. This report should be read in conjunction with the "Offshore Transmission: Guidance for Cost Assessment" (the **Cost Assessment Guidance**)[3].

[3] https://www.ofgem.gov.uk/sites/default/files/2022-03/Offshore Transmission Guidance for Cost Assessment 2022.pdf

Associated publications

- The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2015 Link
- Tender Process Guidance Document TR7 Link
- Offshore Transmission: Guidance for Cost Assessment Link

2. The cost assessment process

Section summary

The Tender Regulations require the Authority to calculate, based on all relevant information available to it, the economic and efficient costs which ought to be, or ought to have been, incurred in connection with developing and constructing the offshore Transmission Assets in respect of a project. This section sets out the process that Ofgem followed in carrying out the cost assessment for the Moray East offshore transmission project (the **Project**).

Overview of the cost assessment process

2.1. The Tender Regulations provide the legal framework for the process we follow for granting offshore electricity transmission licences. This process includes calculating the economic and efficient costs of developing and constructing the offshore Transmission Assets to be transferred to the new OFTO.

2.2. The calculation of those costs shall be:

a) where the construction of the Transmission Assets has not reached the stage when those Transmission Assets are available for use for the transmission of electricity, an estimate of the costs which ought to be incurred in connection with the development and construction of those Transmission Assets; and

b) where the construction of the Transmission Assets has reached the stage when those Transmission Assets are available for use for the transmission of electricity, an assessment of the costs which ought to have been incurred in connection with the development and construction of those Transmission Assets.

Cost assessment principles

2.3. The cost assessment principles, the reasoning for such principles, and the overall process we have adopted can be found in the Cost Assessment Guidance.

2.4. We have applied these principles in our cost assessment process for the Project and, where appropriate, have taken into account project-specific circumstances.

2.5. The remainder of this section describes some of the key elements of the cost assessment process. Section 3 provides the detail as to how these have been applied to the specifics of the Project.

Data collection

2.6. To undertake cost assessments we gather and review a range of information and supporting evidence. These relate to the forecast and actual costs of developing and constructing the Transmission Assets that will transfer to the OFTO. Detailed cost information is provided by the Developer in the form of cost assessment templates (**CAT**s), contract values, asset cost schedules and cashflows. The Developer also provides supporting evidence to substantiate its cost submissions including, amongst other things, contract documentation, supplier payment lists, invoices and receipts.

2.7. We work closely with the Developer to gather information relating to the following cost categories in the development and construction of the relevant Transmission Assets:

a) capital expenditures;
b) development costs;
c) contingency provisions;
d) interest during construction; and
e) transaction costs.

Process stages for cost assessment

2.8. The cost assessment process involves the key stages described below.

Initial Transfer Value (InTV)

2.9. The InTV value is based on cost submissions by the Developer for the relevant project. This value is made available to bidders at the Pre-Qualification or the Enhanced pre-qualification (**EPQ**) stage of the tender process. The letter we send to the Developer at this time indicates that the calculation might be updated as a result of any further information provided by the Developer and our continuing analysis.

Indicative Transfer Value (ITV)

2.10. We provide the estimate of costs for the Transmission Assets (the **ITV**) for the commencement of the Invitation to Tender (**ITT**) stage of the tender process. This value is used as an assumption underlying the tender revenue stream (**TRS**) bids submitted by bidders at the ITT stage. The ITV letter we send to the Developer at this stage confirming the ITV indicates that the calculation might be updated as a result of any further information provided by the Developer and our continuing analysis.

Assessed Costs

2.11. As soon as reasonably practicable after the ITV has been completed, we are satisfied that the assets are available for use, and we have obtained any further information that we require, we commence the exercise to determine the Assessed Costs.

2.12. Following this assessment exercise, Ofgem sends the Developer a draft cost assessment report (in the form of this report) setting out the amount of the Assessed Costs. This gives the Developer the opportunity to correct factual errors and propose the redaction of commercially sensitive information.

2.13. The draft cost assessment report is also sent to the preferred bidder, to allow it to incorporate the Assessed Costs into its estimate of the TRS payable to the OFTO. This TRS amount, incorporating the Assessed Costs, is published in a consultation pursuant to section 8A of the Electricity Act 1989, by which the Authority proposes modifications to the standard conditions of the OFTO Licence on a project specific basis (the **Section 8A Consultation**).

2.14. The draft cost assessment report is published alongside the Section 8A Consultation. The report remains in draft form until the conclusion of the Section 8A Consultation and the Authority has determined to grant the OFTO Licence to the successful bidder.

Final Transfer Value

2.15. If a Developer retains some of the benefit of the available capital allowances, we reduce the relevant amount from the Assessed Costs before we derive the FTV. The FTV is confirmed once the Authority has determined to grant an OFTO Licence to the successful bidder. After licence grant, the final cost assessment report and supporting appendices are published on the Ofgem website.

2.16. Ofgem normally finalises the assessment of costs prior to commencement of the Section 8A Consultation. The FTV is taken into account when the TRS for the full licence period is published.

Cost assessment analysis

2.17. Throughout the cost assessment process, Ofgem applies two key tests to the cost information submitted by the Developer. These are:

Test 1 - Assessing if a Developer's cost submissions are accurate and allocated appropriately

2.18. As a first test, we check the accuracy of the data provided by the Developer and the appropriateness of cost allocations, in particular, between the offshore generation and Transmission Assets. Throughout the cost assessment process, the Developer provides cost information to us on an ongoing basis. Where we identify discrepancies in how the Developer has allocated these costs, we check with the Developer to assess if they have been allocated to the correct asset category and make adjustments accordingly.

2.19. To support the cost assessment process, we undertake a forensic accounting investigation. The scope of this investigation is shared with the Developer in advance. This investigation is based on the final costs that the Developer provides to us, and applies to a sample of contract costs. The actual sample for each project varies due to the different contracting strategies adopted by the Developer and the specific needs of the project, but generally focuses on the most expensive contracts and/or contracts that materially increase in cost.

2.20. The forensic accounting investigation scrutinises the cost allocations provided by the Developer. This may indicate the need for amendments to the Developer's submissions to reflect, for example:

a) the actual costs incurred (e.g. in respect of exchange rates on foreign currency payments); and/or
b) more relevant metrics for the allocation of shared service costs.

2.21. Where amendments, in our opinion, are required and, in the absence of further evidence from the Developer to substantiate the original allocation, we incorporate the recommended changes from the forensic accounting investigation.

Test 2 - Assessing if a Developer's costs are economic and efficient

2.22. Under test two we assess whether the costs reported to date by the relevant Developer have been economic and efficient.

2.23. We undertake benchmarking analysis using cost reporting data from other projects. This is used to identify cost outliers reported by offshore Developers. Where cost outliers are identified on a project, these are further reviewed and Ofgem may use external consultants to investigate the reasons for this and evaluate whether the costs are economic and efficient.

2.24. We also consider the procurement processes adopted by the Developer to obtain economic and efficient Transmission Asset costs.

2.25. When undertaking the assessment of costs to derive the FTV, we review updated information provided by the Developer, as well as any cost areas flagged for further investigation at the ITV stage. Where costs have increased since the ITV, we ask the Developer to provide supporting documentation to justify these increases. We may undertake a technical investigation that focuses on, for example, a particular cost component, such as an increase of costs in a contract or multiple increases across several contracts.

3. Moray East Offshore Windfarm Limited cost assessment

Section summary

This section sets out a short description of the wind farm and the Transmission Assets, based on information provided by the Developer. It then summarises how we have undertaken our cost assessment for the Transmission Assets, from the InTV to the FTV and provides a breakdown of the key cost categories that we have considered and highlights the decisions that we have made.

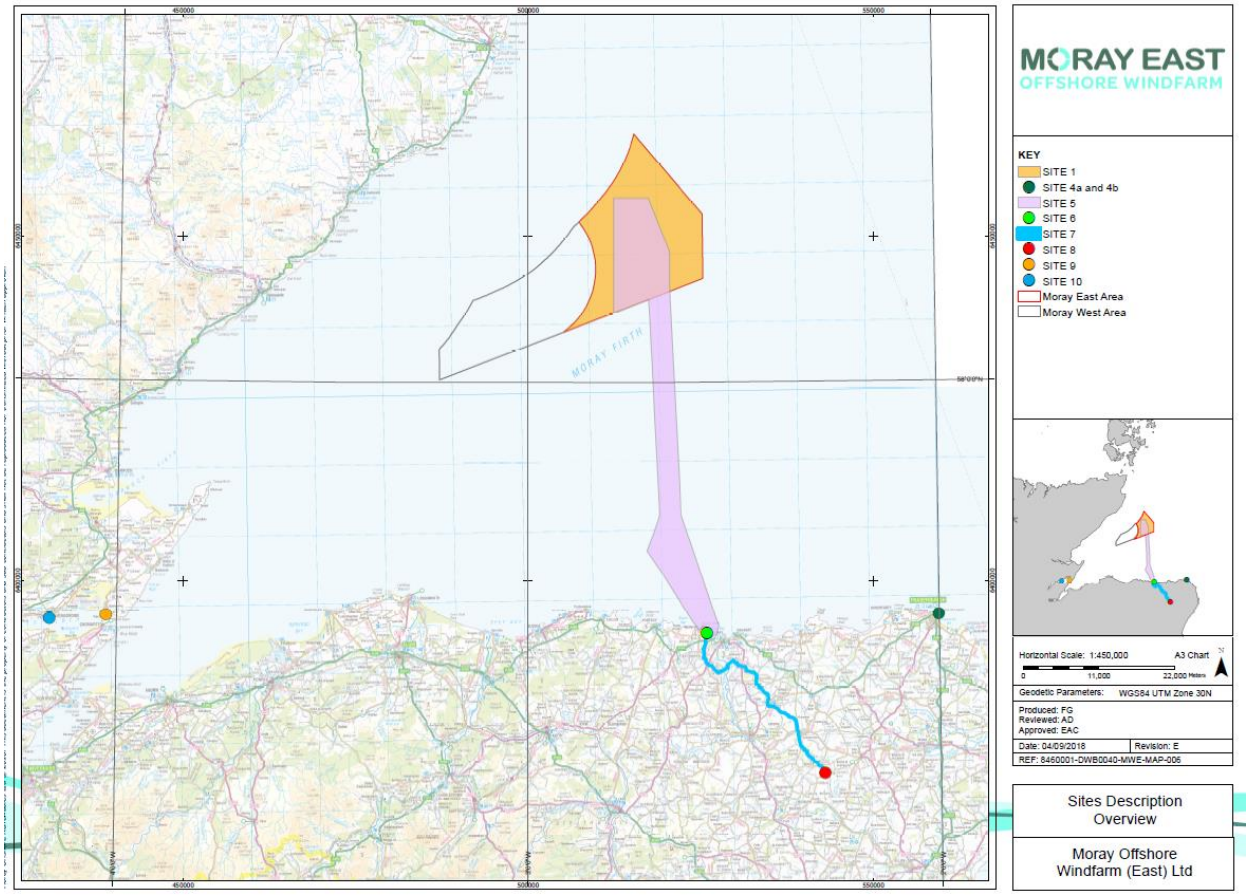
Transmission Assets[4]

3.1. The Moray East Offshore Wind Farm is located 22km from the Caithness Coast on the Smith Bank in the outer Moray Firth and will be located within UK territorial waters.

3.2. The wind farm has a 950MW capacity, comprising 100 Vestas v164-9.5MW turbines. The power is collected via three Offshore Substation Platforms (**OSPs**), via 66kV array cables and associated equipment. Power is stepped up to 220kV on the OSPs and is exported to the onshore substation at New Deer, Aberdeenshire, via circa 58km of offshore and 34.5km of onshore export cables via three circuits. At the onshore substation, the power is stepped up again to 400kV and connected via 92m[5] of 275kV (400kV) cable to the SSEN Transmission (**SSEN-T**) substation where it joins the National Electricity Transmission System (**NETS**).

[4] The technical information contained in this section of the Report is based on information provided by the Developer and has not been independently verified by Ofgem.
[5] This is the average of three lengths of cable at 50m, 85m and 140m.

Figure 1: Location of the Moray East Offshore Wind Farm and Transmission Assets



3.3. Moray East is owned Moray East Holdings Limited which itself has four shareholders:

- Delphis Holdings Limited (23.3%)
- Moray Offshore Renewable Power Limited (33.3%)
- Diamond Green Limited (33.4%)
- China Three Gorges (UK) Limited (10%).

3.4. The Transmission Assets connect to the Moray East Offshore Wind Farm at the three offshore platforms. The Transmission Assets that are transferring to the OFTO comprise:

a) three OSPs including one 315MVA 220/66kV grid transformer, one 75MVAr 220kV shunt reactor, 220kV GIS switchgear, one 175kVA 66/0.4kV earthing transformer and associated auxiliary systems;

b) three offshore export cables (with associated fibre optics) – 3 x 220kV submarine cable circuits of circa 55.25km, 62.36km and 56.04km;

c) three sections of 1km long HDD ducts from sea bed to transition joint bay;

d) three Land cables (with associated fibre optics) – 3 x onshore 220kV underground cables of 34.5km length;
e) one onshore substation – including 220kV Gas Insulated Switchgear (GIS), 3 340MVA 275(400)kV/220kV/33kV transformers, 400kV Highly Integrated Switchgear (HIS), 100MVAr 220kV variable shunt reactors, 143MVAr 33kV SVC plus statcoms, 133MVAr 33KV switched reactor and associated auxiliary systems and filters;
f) three 400kV cables linking the onshore substation to SSEN-T's New Deer substation; and
g) SCADA - a common SCADA system for both Transmission and Generation assets.

3.5. The onshore and offshore boundary points proposed by the Developer are as follows:

a) offshore (Grid Entry Point) - 66kV busduct terminations installed at the 66kV incomer circuit breaker on each OSP; and
b) onshore (Transmission Interface Point) – Cable sealing end of the 400kV cable in the SSEN-T New Deer substation.

3.6. The spares included in the Transmission Assets that are transferring to the OFTO are:

a) 2295m of 1000mm^2 subsea cable;
b) 1500m of cable for the HDD intertidal section;
c) various joints (transition, straight and cable repair joints);
d) cable terminations; and
e) other miscellaneous spares.

Overview of cost assessment process for Moray East project

3.7. We received the first cost information from the Developer in August 2020. Since then we have worked with the Developer and our advisers to reach an assessment of the costs which ought to have been incurred in connection with the development and construction of the Transmission Assets. We set out below an outline of the steps taken, and to be taken, in the cost assessment process for the Project.

a) **October 2020**: InTV (£720.0m) published.
b) **March 2021**: Developer submitted the ITV CAT (the **ITV CAT**)
c) **March – June 2021:** forensic accounting and ITV investigation undertaken.
d) **September 2021**: ITV figure (£647.8m) determined and communicated to Developer.
e) **September 2021:** ITT process (bidding and evaluation).
f) **October 2021**: formal ITV letter issued.
g) **February 2022:** Developer submitted a revised CAT (the **FTV CAT**).
h) **February – August 2022**: final cost reporting updates and supporting information received for the FTV from the Developer.
i) **Jan 2023:** this draft cost assessment report released to the Developer for comment and the Preferred Bidder for information.
j) **Jan 2023:** draft cost assessment report published alongside the Section 8A Consultation.
k) **Feb 2024:** The Authority to determine the FTV when granting the licence to the successful bidder. The final cost assessment report will be published after licence grant.

Summary of the InTV and ITV determination

3.8. The InTV of £720.0m was published in November 2020. This value was based on information received from the Developer at an early stage in the construction and development of the Project. This value was included in the EPQ document and Preliminary Information Memorandum (**PIM**) for the commencement of the EPQ stage of the Project.

3.9. The ITV of £647.8m was established in September 2021, with the formal ITV letter issued to the Developer in October 2021. Our estimate was supported by our forensic accounting advisors, Grant Thornton (**GT**), our internal analysis, and the supporting information provided by the Developer.

3.10. We conducted an in-depth cost analysis at ITV, however some costs could not be fully investigated and were highlighted as needing further attention at the FTV stage. This included but was not limited to costs related to onshore substation costs for generation, onshore cable costs, spares for onshore and offshore cable, boulder removal works for the sea cable installation, costs incurred due to Covid-19, 400kV Upgrade works and review of the period and duration in which IDC is applicable.

3.11. Below are the main points arising from our review, the forensic review, and a description of the adjustments applied at ITV. Full details are set out in the ITV letter issued by Ofgem on 20 October 2021 (**the ITV Letter**).

Ofgem review – Individual cost categories

3.12. We undertook a detailed review of each cost category. Below we summarise the adjustments made to each category (Note: figures may not add to totals due to rounding).

Offshore Substation Platforms (OSPs)

3.13. At ITV we reviewed the costs for the design, supply, installation, commissioning and project management of the three OSPs and decreased the costs submitted in this category by £8.3m overall. This adjustment was made up of the following adjustments:

a) a reduction of £4.5m applied for generator weight contribution to the OSPs;
b) a reduction of £3.9m for costs identified by the Developer;
c) a reduction of £0.5m to submitted costs for expected spares;
d) an increase identified by GT, based on an updated consolidated claims package from a contractor of £0.4m; and

e) a reduction for the expedited shipment of jacket tubulars of £85k.

Submarine cable supply and installation

3.14. We adjusted the costs submitted for the design, fabrication, installation and project management of the submarine cables which resulted in an overall reduction of £11.0m to the submitted costs. This consisted of the following reductions:

f) a net reduction of £10.0m for adjustments to the CAT RevC figures to match those highlighted in GT's ex-ante review;
g) a reduction of £0.8m for fibre optic cables used by the generator for generation purposes;
h) a reduction of £0.1m related to a variation for border quarantine during the Covid-19 pandemic; and
i) a reduction of £0.1m related to the storage of the spare cable in an onshore storage facility.

Onshore cables

3.15. We adjusted the costs submitted for the design, fabrication, installation and project management of the onshore cables which resulted in an overall reduction of £25.3m. This adjustment included the following reductions:

a) a reduction of £24.4m due to the delta in the Developer's submitted costs and our benchmarked value;
b) a reduction of £0.6m for fibre optic cables used by the generator for generation purposes; and
c) a reduction of £0.2m for incorrect reallocations in the CAT and new calculated costs for land rights highlighted by GT.

Onshore substation

3.16. We reduced the costs submitted for the design, fabrication, installation and project management of the onshore cables by £12.7m. This adjustment included:

a) a reduction of £11.3m due to a delta in the Developer's submitted costs and our benchmarked value;

b) a reduction of £0.6m for the area of the onshore substation space occupied by generation-related equipment;
c) a reduction of £0.4m highlighted by the Developer for items not relevant to the Transmission Assets;
d) a positive adjustment of £0.3m highlighted by GT due to revised calculations for estimated costs; and
e) a reduction of £0.1m due to a reduced estimate of landscaping costs.

Reactive and harmonic equipment

3.17. The Developer submitted costs for the Project's reactive and harmonic filtering equipment. We did not make any adjustments to this category, therefore the estimated value at ITV for the reactive compensation costs was £[redacted]m.

Connection works

3.18. The Developer submitted costs for the connection works undertaken by SSEN-T. We applied a reduction of £5.4m to the Developer's submitted costs due to updated costs being supplied by the Developer regarding connection works undertaken by SSEN-T, which was confirmed in GT's review.

Other costs

3.19. We made an overall reduction of £49.3m to this cost category submitted by the Developer, made up of the following:

a) a reduction of £38.0m for current and historic financing costs. We removed these costs as they are covered by IDC allowances;
b) a reduction of £6.4m for costs highlighted by GT during their review;
c) a reduction of £4.5m for generation costs related metrological mast;
d) a reduction of £0.3m for operations and maintenance costs;
e) a reduction of £0.2m to adjust for staffing rates allocations from 50% to the Project's generic 23% rate; and
f) a reduction of £3k identified by the Developer due to an incorrect posting for Ofgem tender entry costs.

Transaction costs

3.20. At ITV stage these costs were not fully defined. These are, in the main, an estimate of costs. We did not apply any adjustment at this stage and these costs are fully reviewed at the FTV stage. We included £1.7m in transaction costs in the ITV.

Interest During Construction (IDC)

3.21. We made an overall reduction of £16.7m to this cost category, based on:

a) a positive adjustment of £3.5m to correct the IDC rate and a formula error;
b) reductions of £4.8m for adjusting the duration of the pre-FID period to reflect the economic and efficient duration under the section 36 regime;
c) a reduction of £3.1m to account for the point in time when IDC should cease, which was in advance of the Developer's submitted date; and
d) the IDC was adjusted by a further £12.3m to reflect the reduction in IDC caused by costs not being included in the ITV.

Forensic Review

3.22. When establishing the ITV, we took into account the results of the forensic investigation conducted by our independent consultant GT. They assessed the level of contingency, as a proportion of total costs, and found it to be reasonable. GT found that most other costs in the CAT were appropriately stated. For those costs that were not appropriately stated, GT have proposed adjustments. They highlighted the following items for further review by Ofgem:

a) to request supporting information for estimated transaction costs;
b) to request supporting information for project financing costs;
c) to request updates to the contingency amounts included by the Developer;
d) to request supporting information for any unsubstantiated costs;
e) to review resource time and rates relating to project management spend;
f) to review the allocation rates used by the Developer where costs are split between generation and Transmission Assets; and
g) to review any foreign exchange costs where spot rates were used.

Process for determining the Assessed Costs

Accuracy and Allocation

3.23. The Project was constructed using a multi-contract strategy. An ex-post forensic accounting investigation was undertaken by GT to ensure that the costs reported to us by the Developer were accurate, in that they represented the actual costs incurred by the Developer during the development and construction of the Project.

3.24. This investigation considered the following main contracts in respect of the Transmission Assets:

a) onshore substation and onshore cable contract;
b) offshore substation contract; and
c) offshore cable contract.

Efficiency

3.25. After costs had been appropriately identified and allocated, we performed an assessment of whether these costs were economic and efficient, which involved an internal benchmarking review as well as a wider review of costs incurred in each cost category.

Summary of Assessment

3.26. Following completion of the development and construction of the Transmission Assets, the Developer submitted costs in the February 2022 FTV CAT amounting to a value of £695.5m. Our assessment of the economic and efficient costs which have been or ought to have been incurred, in connection with developing and constructing the Transmission Assets, has established an Assessed Costs value of £666.1m. Table 2 below provides a breakdown of the cost categories for the Project at each stage and the changes between the ITV and the FTV stages, and paragraphs 3.30 – 3.106 set out the issues considered as part of the FTV stage.

Table 2: Summary of cost categories*

Category	InTV Oct 20 (£m)	ITV Oct 21 (£m)	FTV July 22 (£m)	FTV-ITV Nov 22 (£m unless indicated)	Reasons for change between ITV and FTV
Capex	517.4	488.7	533.7	45.0	Increase of: **37.5** for costs excluded at ITV for benchmarking being re-submitted **19.7** for additional costs for 400kV upgrade works **3.2** due to estimated costs being made firm **0.7** for land costs re-allocated from the development cost category Decrease of: **5.1** for the delta between submitted onshore substation cost and our benchmark **3.3** for risk related to the 400kV upgrade works **1.5** for updated 400kV upgrade costs **1.1** for a provisional sums that have been realised at a lower cost **0.8** to adjust submitted costs to reflect back-up contracts **0.7** for costs no longer required and costs that were duplicated in error **0.5** for spare cable lengths in excess of allowed length **0.3** for internal project management resource related to 400kV upgrade works **0.3** for WTG islanding system studies **0.2** to remove generation share of system and harmonic studies **0.1** for items that were not delivered but were included in the submission **0.1** for external specialist support related to 400kV upgrade works **0.1** for expeditor staff **0.1** for a reduced diving option **0.1** for a boulder picking variation **12k** for small miscellaneous adjustments
Other	79.9	67.0	57.5	-9.5	Increase of: **0.1** for revised cost of certification of offshore substructure design **2k** for crane operations Decrease of: **3.8** for various financing costs that are covered by IDC allowances **2.4** to apply the generic 23% OFTO allocation to various project management costs **1.3** in costs submitted by the Developer **1.0** for mark-up included in project management costs **0.7** for land costs re-allocated to the land cable cost category **0.2** for Crown Estate costs **0.1** for removal of contingency held by a contractor that was no longer required **14k** for cable fault investigations **4k** for duplicated ground investigations cost
Contingency	48.5	26.3	4.8	-21.5	Increase of: **4.8m** in submitted contingency related to the 400kV upgrade works Decrease of: **26.3m** due to contingencies being realised on assets that have completed construction or not required

IDC	72.6	64.2	68.4	4.2	Increase of: **11.8** in submitted costs by Developer Decrease of: **5.0** for extended duration prior to FID **44k** for ION B dates and amount of assets that had been commissioned **2.5** prorate adjustment for disallowed costs
Transaction	1.6	1.7	1.7	0.0	Increase of: **2k** in costs submitted by the Developer
Total	720.0	647.8	666.1	18.3	

these figures may not add to totals due to rounding.

Capital expenditure

3.27. The Capex element of the Assessed Costs is £533.7m. Overall, the Capex has increased by £45.0m from the ITV to the FTV stage as set out in more detail in Table 2 above.

Accuracy and allocation of Capex costs

3.28. For the majority of Capex costs incurred on the Project, it was clear if costs should be allocated to the Transmission or the Generation Assets in their entirety. For costs shared between Generation Assets and Transmission Assets, the Developer allocated a proportion of costs to the Transmission Assets using the Capex ratio between Generation and Transmission Assets.

3.29. During our assessment we reviewed some costs where the Transmission Asset allocations were not clear or we consider were not justified. In some of these cases, as outlined in the cost categories below, we have made adjustments to the allocations to reflect the generic project allocation of 23%[6].

[6] This is based on the ratio of the project's generation capex to the transmission capex

Efficiency of Capex costs

3.30. Most cost categories showed an increase in costs. This overall increase is the result of cost updates from the Developer and adjustments applied following our cost review, which are detailed below.

Crosscutting Issues

Reallocation of Costs to Correct Cost Categories

3.31. The Developer submitted numerous costs in the incorrect cost category of the CAT. In most cases, these were larger costs covering multiple areas of work that had been assigned to one cost category rather than being broken down and assigned to the correct individual cost categories.

Ofgem's view

3.32. In these instances we have reallocated costs to the appropriate cost category. Overall these reallocations did not have any effect on the values included in the FTV.

3.33. These reallocations did have an effect on the benchmarking results of certain cost categories. For example, where the submitted onshore substation costs were above our benchmark, costs such as development and project management were reallocated from this cost category to the correct cost category. In turn, this reduced the delta between our benchmark result and the Developer's submitted costs. Subsequently, we carried out further analysis on the cost categories that had increased due to these reallocations and consider that these costs were still in line with our expected benchmark values.

3.34. The Developer also submitted projected costs relating to 400kV upgrade works under the onshore substation cost category, though they should have been included in the reactive cost category. Once these costs were confirmed at contract signing, we removed all projected costs from the onshore substation cost category and added the new confirmed costs to the reactive cost category. This had a negative effect of £1.5m on the overall submitted capex values due to a reduction in the forecasted costs. As detailed in paragraph 3.72 below, we also made additional negative adjustments to these costs once we had assessed them in full.

Wind Turbine Generator (WTG) Islanding Costs

3.35. The Developer included costs for WTG Islanding studies under the offshore and onshore substation cost categories in their FTV submission. The Developer required a more dynamic model for breaker switching studies, as previous iterations were not sufficient.

Ofgem's view

3.36. We have not included these costs in the FTV as we consider that these additional studies should have been completed at an earlier stage in the construction of the Transmission Assets. We also consider that the decision to complete these studies was generation-led. This has resulted in a reduction of £0.3m to the Developer's submitted costs.

Offshore Substation Platforms (OSP)

Expeditor Staff

3.37. The Developer submitted costs for expeditor staff on the offshore substation. The Developer confirmed that these were the costs for expeditor staff, who were acting as supervisors on external coatings and welding. These supervisors were monitoring progress and quality of the works as well as working on the transport and installation activities for the OSP topside.

Ofgem's view

3.38. This resource was in addition to the Developer's internal supervisory resource and is in excess of what we consider is economic and efficient. Therefore, we have not included the £0.1m cost for this in the FTV.

Siemens Contract Costs

3.39. The Developer submitted costs for the offshore substation main contract works. They subsequently provided updated cost breakdowns to GT during the forensic review. GT identified items that were not delivered but were included in the Developer's FTV CAT submission and items that were not included in the submission but where work had been completed.

Ofgem's view

3.40. We have not included the cost of £0.1m in the FTV, which reflects the net adjustment to the contract costs resulting from GT's forensic review. We have not included costs for In-Line Connector works which were identified by GT as a cost that was delivered but excluded from the Developer's submission. This is because In-Line Connector costs were identified by the Developer as not relevant to the OFTO assets at the ITV stage.

CTV Availability, Fire Alarm Repair, Strategic Spares & In-line Connector Work

3.41. The Developer submitted multiple small cost variations for various items, including Crew Transfer Vessel (**CTV**) availability, fire alarm repairs and strategic spares.

Ofgem's view

3.42. In relation to these costs submitted, we have not included a total of £12k in the FTV. This is the net adjustment from smaller adjustments as detailed below:

a) Costs incurred for CTV availability were a result of interface management inefficiencies. We consider that these costs would not have come to fruition if prior arrangements had been put in place to ensure availability of the CTV at the time of required crew transfer;
b) The Developer added costs for the repair of a fire alarm after the glass on the alarm was damaged by a 3rd party contractor. We have not included this cost in the FTV as liability for rectification lies with the contractor;
c) Strategic spares costs related to busducts have not been included in the FTV. This is because we consider that these spares are consumables and not strategic spares as was noted in the Developer's submission. We have also made an adjustment to spares costs after the Developer supplied updated documentation, illustrating actual costs incurred for the procurement of spares; and
d) The Developer supplied a new variation order for In-Line Connector work costs. Costs for In-Line Connector work were reviewed at ITV where the Developer identified that In-Line Connector costs were not relevant to OFTO assets. Our position has not altered since the ITV submission, so costs for part of this new variation has been included in the FTV.

Submarine cable

NKT Contract Costs

3.43. The original costs submitted by the Developer for the offshore cable contract works was subsequently updated with new cost breakdowns and submitted to GT during their forensic review. GT identified costs that were no longer required and costs that were included twice in error.

Ofgem's view

3.44. We have made a negative adjustment of £0.7m to the Developer's submission, which reflects the adjustment to the contract costs resulting from GT's forensic review.

Spare Cable

3.45. Within the FTV CAT, the Developer included the cost of 3.5km of spare cable to be transferred to the OFTO. The Developer also submitted costs for an additional length of cable that was the surplus cable that was left after cable installation work was complete. The Developer procured this from the contractor. This takes the total length of spare cable included in the submission to 4km.

Ofgem's view

3.46. In relation to the Project's spare submarine cables we have allowed 1.5km of cable for the HDD section and 1km of spare offshore export cable against the 4km proposed by the Developer. We determined the economic and efficient quantity of cable based on our spare cable policy, as set out in the Cost Assessment Guidance and our review of the information provided by the Developer. The Developer was unable to provide project specific information to justify the inclusion of additional spare cable. As a result we have not included £0.5m in the FTV for the value of this additional spare cable that we have excluded.

Reduced Diving Option

3.47. In their FTV submission, the Developer included a variation order for an additional option for reduced diving operations. The Developer has confirmed that this was conducted so that a surface connection for the Horizontal Directional Drilling (**HDD**) could be applied, so that diving activity would be reduced.

Ofgem's view

3.48. We have not included £0.1m for this option in the FTV as the Developer failed to provide sufficient justification for this cost. It was therefore not possible for us to ascertain whether this additional option resulted in any costs savings for the Project.

Boulder Picking Variation

3.49. The Developer included a variation for NKT boulder picking vessel costs. This cost was incurred to clear residual boulders left in the cable route that were not cleared during previous boulder picking work by other contractors. The additional boulders were discovered during the pre-lay survey and NKT was procured for the work as they were on site with the correct vessel at the time.

Ofgem's view

3.50. Due to the nature of this procurement method, the Developer paid what we consider to be an uneconomic day rate. We have applied an adjustment to the figures in order for the average day rate of this vessel to be in line with the other boulder picking contracts used. This has resulted in £0.1m not being included in the FTV.

Onshore cables

Generation Use of Fibre Optic Cable

3.51. At the ITV stage, we removed costs relating to generation use of fibre optic cables for both the onshore and offshore cable categories. While the Developer had included the onshore cable reduction in the FTV CAT, during the forensic review GT identified that this value had not been included in the category total due to an error in the formula.

Ofgem's view

3.52. We have included a negative adjustment of £0.6m to correct this error. This reduction brings costs back in line with the ITV stage calculation for generation use of fibre optic cables in the onshore cable.

Delta in Benchmark Value

3.53. As part of the benchmarking exercise at both ITV and FTV stages, the onshore cable cost category was identified as being a significant outlier when compared to our expected values. The expected values are based on data from previous projects' onshore cable supply and installation costs.

3.54. We made allowances for a number of project specific factors including:

a) Significant HDD costs;
b) reductions in realised costs in comparison to those forecasted; and
c) higher capacity cables.

3.55. After revisiting the benchmarking analysis with all of the above project specific allowances included, we considered that the submitted costs for this category were in line with projects of a similar size and scale and made no further adjustments to the costs.

Onshore substation

Delta in Benchmark Value

3.56. As part of the benchmarking exercise at both ITV and FTV stages, the onshore substation cost category was identified as being a significant outlier when compared to our expected values. The expected values are based on data from previous projects' onshore substation construction costs.

3.57. We made allowances for a number of project specific factors including:

a) variations which partly include Covid-19 related costs;
b) various re-allocated costs that were incorrectly allocated to the onshore substation cost category;
c) site-specific civil engineering costs;
d) higher harmonic filter costs as a result of network location;
e) marginal costs related to the inclusion of a third circuit;
f) reductions in realised costs in comparison to those forecasted;
g) location-specific Distribution Network Operator (DNO) connection costs; and
h) a constraint on reactor sizing meaning several smaller 220kV units were installed.

3.58. However, even after revisiting the benchmarking analysis with all of the above project specific allowances included, there was still a significant difference in the submitted costs for this category compared to projects of a similar size and scale.

Ofgem's view

3.59. The Developer was unable to provide any further acceptable information to explain this difference between the submitted costs and the expected costs. In the Cost Assessment Guidance we state:

> "In the absence of appropriate evidence to justify these differences, we may use the benchmarking data to inform our view of whether or not the relevant costs can be considered economic and efficient."

3.60. During our engagement with the Developer, they submitted additional information regarding characteristics that they viewed as project specific, as detailed in the paragraphs below.

3.61. The Developer posed that Forex losses from Brexit leading up to contract signature were a contributing factor to the high costs against our benchmark. After reviewing this submission we did not include this cost as a project specific factor. The reason for this being, that in order to arrive at this value, the Developer had compared two contracts for what we consider are different projects (the initial unsuccessful CfD bid project with a capacity of 504MW and the second successful CfD round project with a capacity of 900MW). We consider that it is not possible to isolate a specific Forex loss value in this instance because the value that the Developer submitted is affected by several factors in addition to Forex rate movements.

3.62. The Developer also submitted the effects of inflation as a project specific factor. While we agree that this would affect project costs, we have not included this factor as our benchmarking model is adjusted to nominal prices in a base year. Therefore inflationary factors are excluded for comparison purposes as it will be accounted for in the expected benchmark values. We also uplift for fuel and metals in a similar way.

3.63. The Developer's project specific reasons included costs relating to the installation of Gas-Insulated Switchgear (GIS) as opposed to Air-Insulated Switchgear (AIS). The Developer explained that due to the location of the onshore substation site, equipment with low visual impact had to be used. This resulted in the use of GIS equipment in a smaller but more expensive substation design. We have not included this cost as a project specific cost because the historic projects included in the benchmarking model predominantly include projects that have also used GIS. Therefore, the benchmark value includes the costs associated with this type of equipment.

3.64. The Developer also included a project specific factor for noise limiting equipment in their submission. They explained that the location of the substation site meant that their planning permission specified the use of noise enclosures at extra cost. We understand and accept that this is a project specific factor. We have however excluded this submitted value because the Developer included the cost for the additional noise enclosures in their costing for the 220kV constraint on reactor sizing which we had included as a project specific factor previously. This entry was therefore a duplication.

3.65. In total, we have not included £9.7m in the FTV for the onshore substation for the items discussed above.

Road Works Provisional Sum

3.66. The Developer submitted costs due to roadworks having to be undertaken on access routes to enable adequate entry to site. The original submission was a provisional sum, and the Developer confirmed the actual incurred cost during our assessment process.

Ofgem's view

3.67. We have therefore not included £1.0m of the provisional value in the FTV to reflect the actual costs incurred.

Siemens Design & Engineering and Generation Share of System Studies

3.68. As part of their submission, the Developer included engineering and design costs from the main contractor and during our review, we asked for a detailed breakdown of what was

included in this cost. When submitting the breakdown, the Developer identified one cost that had been an estimate and was now confirmed and another cost which should have been partially allocated to the Generation Assets.

Ofgem's view

3.69. We reviewed the submitted information and have made a negative adjustment of £0.2m to remove the generation share of system studies and harmonic studies. We also made a negative adjustment of £0.2m to reduce estimated costs in line with incurred cost across multiple areas within this work. Therefore these costs have not been included in the FTV.

Reactive

400kV Upgrade works

3.70. The electricity transmission network in the North East of Scotland is currently being upgraded to 400kV by the network operator SSEN-T. As a result of this work, the Moray East Project needs to be upgraded in the future to 400kV in order to be electrically compatible with the upgraded network. During the course of construction of the Transmission Assets, Ofgem agreed with the Developer that they were the party best suited to complete this upgrade work. The reason for these additional 400kV upgrade costs was due to the timings of the Moray East project development and the Electricity System Operator's view on when the 400kV upgrade was required.

3.71. The Developer submitted detailed costs for these works for our review in May 2022. This included contract costs, the Developer's internal resource costs, and a contingency value supported by a risk register. Due to the timing of these works, we have completed an ex-ante review of costs.

Ofgem's View

3.72. We have made an overall reduction totalling £5.2m to the submitted 400kV upgrade works costs. The reasoning behind this reduction is detailed in the paragraphs below.

3.73. We have reduced the submitted contingency by £3.3m. To determine this value, we undertook a qualitative bottom-up assessment of the Developer's risk register and excluded risks that we consider are ineligible for funding via FTV, as we consider them not economic

and efficient. For example, we have not included risk related to interfaces that the Developer is able to manage, expired risks, or risks that we consider to be very unlikely. We consider the final risk value combined with the project management allowance we have accepted provide an appropriate level of cover against the risk profile of the 400kV upgrade works.

3.74. During our review of the 400kV upgrade works, the Developer provided us with ongoing updates to the costs. The result of this was, as the scope of the upgrade works required was refined, there was a reduction of £1.5m from the originally submitted costs at the FTV. This cost has not been included in the FTV.

3.75. We have made a negative adjustment of £0.3m for projected internal resource costs. In its submission, the Developer included internal resource costs for a period of 29 months. We consider that this is excessive for the works that the Developer is completing. We consider that a 12 month period is an efficient duration to complete this work and to allow the Developer 3 months for development work, 6 months for construction and a further 3 months for closing the project. We have, however accepted three roles for the duration of the Developer's forecast as further justification was received to justify that these resources were required for the full duration.

3.76. We have made a negative adjustment of £0.1m for external legal specialist support costs. During our review, we did not receive sufficient justification from the Developer that these resources were required in excess of the Developer's internal resource and the contractor resource. We have therefore removed these costs as we consider them to be surplus to an economic and efficient resource level.

3.77. After reviewing the costs submitted for the 400kV upgrade work, we have increased the FTV by £19.7m to make allowances for costs already incurred and the confirmed costs for contract works and resourcing costs.

Other costs

3.78. The assessed other costs for the Transmission Assets at the FTV is £57.5m, a decrease of £9.5m from ITV. The detailed cost decrease is set out in Table 2 above and consists of the adjustments set out in the paragraphs below.

Financial Support, Bank Charging & OFTO Retainer Fee Costs

3.79. The Developer included various financial support costs in their submission. This included bank charges, retainer fees for financial, lending and legal advisors as well as payments for the maintenance of bank accounts.

Ofgem's View

3.80. We have not included the cost of £3.8m for all of the above in the FTV. The Developer will be recompensed for these costs via IDC allowances. Therefore, it was not necessary for the Developer to also add these costs as it had already been accounted for in IDC allowance.

EDPR Costs & Allocation Splits

3.81. The Developer included costs incurred via company EDP Renewables (EDPR) for Project Management and Human Resource. The Developer confirmed that a markup was included in these costs. Some of these costs also had OFTO allocations of 30% and 50% across multiple line items.

Ofgem's View

3.82. The markup that was included in total should not have been added as this does not represent the actual value paid for assets. As noted in the Cost Assessment Guidance, developers are required to sell the Transmission Assets to the OFTO at cost. Therefore we do not accept any mark-up or margin on internal resources costs into the transfer value.

3.83. The removal of the markup has resulted in a reduction of £1.0m. Furthermore, we have reduced the allocations to 23% as per the general project allocations as insufficient evidence was provided to justify a higher OFTO cost allocation. This has resulted in £2.0m not being included in the FTV. The reduction applied for both the mark up percentage and for the adjustment of the allocations has resulted in a total of £3.0m not being included in the FTV.

Individual Project Management Costs

3.84. The Developer submitted costs across multiple line items for project management costs in relation to WTG and inter-array cable engineers. These were submitted with varying OFTO allocations ranging from 23% to 100%.

Ofgem's View

3.85. We have reduced the allocations to 23% as per the general project allocations as insufficient evidence was provided to justify higher cost allocation percentage. This has resulted in £0.4m not being included in the FTV.

Crown Estate Costs

3.86. The Developer submitted Crown Estate costs for leasing and fees as well as costs for minor consultancy services across multiple line items within the submission.

Ofgem's View

3.87. We have removed the costs that were included for the Crown Estate as these costs are not relevant to the Transmission Assets. Therefore we have not included £0.2m in the FTV.

Drainage Costs

3.88. The Developer confirmed that a float was set up between Shepherd & Wedderburn LLP and CKD Galbraith for landowner compensation purposes. The float was initially held due to the scope of work regarding link boxes was yet to be agreed. However, it was confirmed during our assessment that the full value was not completely used when the scope was finalised.

Ofgem's View

3.89. As the full amount of the float was not required, we have not included £0.1m of this in the FTV to reflect the actual costs incurred for these works.

Onshore Cable Fault Investigation

3.90. The Developer confirmed that a fault occurred on the onshore export cable during the site installation works. The site contractor investigated and rectified the work with no additional cost to the project. However, costs were incurred for a consultant to ensure that the fault investigation and repair works were completed to the required standard.

Ofgem's View

3.91. This cost has not been included in the FTV. The Developer resource in addition to the contractor resource is in excess of what we consider is economic and efficient. This has resulted in £14k not being included in the FTV.

Offshore Substructure Design

3.92. The Developer submitted updated cost evidence for certification of the OSP substructure design. Previous costs were added to CAT for administrative purposes but can be discounted from review after actual figures were provided for this.

Ofgem's View

3.93. We have amended the total submitted for this cost to reflect the updated payment invoice that reflects the actual cost of works that were undertaken. This updated information has resulted in an increase of £0.1m being included in the FTV.

Davit Crane Training

3.94. The Developer submitted costs for a harbour crane that supported CTVs and construction activities. During our review, the Developer provided evidence that the cost incurred was slightly higher than what was submitted as an estimate in the FTV CAT.

Ofgem's View

3.95. We have reviewed the evidence submitted and made an increase of £1.5k to reflect the incurred cost of these works in the FTV.

Contingency

3.96. The Assessed Costs contain a small remaining contingency value. This relates to the 400kV upgrade works mentioned previously in this report. We assessed the submitted contingency for these works and have included £4.8m in the FTV to cover what we view as the efficient level of risk experienced by the Developer while undertaking these works.

3.97. Of the contingency that was submitted at the ITV stage, in relation to the construction of assets that are now complete, all of this was either used or not realised and therefore the £26.3m was not included by the Developer in the FTV CAT.

Interest during construction

3.98. Since the ITV, the Project has been progressing with construction work and incurring additional costs. This has, in turn, resulted in an increase of £11.8m in IDC.

3.99. At the ITV, a decrease of £16.7m was made in relation to the duration of the pre-FID period, the availability of the assets, and our overall disallowances.

Ofgem's view

3.100. At FTV, we have reviewed the IDC included in the FTV and this total is now £68.4m. The adjustments that make up this value are detailed in the paragraphs below.

3.101. Similar projects that we have assessed have achieved FID in a shorter duration than this Project. We discussed the reasons for this extended duration with the Developer and took their mitigating reasons into account. This included two time periods – the period between the first and second CfD bids, and the period between the successful CfD bid and FID.

3.102. For the period between CfD bids, we have made a reduction of £5.0m. The Developer submitted their first CfD bid in 2015 which was unsuccessful and CfD bid in 2017 which was successful. We consider that the first submission was at the Developer's risk, and that the initial submitted project was an inefficient design, resulting in a high CfD bid and was unsuccessful. We have curtailed IDC during the period that the second successful bid was being optimised to reflect this. This has resulted in a period of 29 months being excluded from the IDC allowance.

3.103. For the period between the successful CfD bid and FID, the Developer provided details of ongoing design and development work that was not possible until after FID and we have made no further adjustments to this period.

3.104. We have also made a reduction of £44k related to our adjustment of the timing of the last period of IDC. The Developer included reduced IDC interest (to reflect that 78% of the assets were operational and IDC had stopped on them) in May 2021, the month prior to the

Transmission Assets becoming available for transmission. This was based on the Developer's pro-rata calculation of the available assets. However, our calculations show that the percentage was in fact that 79.3% of the assets were available for transmission. We have therefore made a small negative adjustment to reflect this.

3.105. Finally, a reduction of £2.5m was made to the total IDC representing the adjustment following the conclusion of the wider FTV cost assessment. This proportionate reduction in IDC was for all of the costs that were submitted and subsequently not included in the FTV and is a prorate adjustment.

Transaction costs

3.106. Since the ITV, the Project had been progressing with additional costs being incurred and any estimated cost now made firm. The submitted transaction costs decreased by £2k between ITV and the FTV submission.

Ofgem's view

3.107. We have considered the level of costs submitted and concluded they are in line with expectations and are considered efficient and economic and were allocated appropriately.

Confirmation in relation to tax benefits

3.108. The ITV was calculated on the basis that the OFTO would obtain the full benefit of all available capital allowances. If this were not the case for the Assessed Costs, we would reduce the assessment of costs for an amount that reflects the value of the tax benefit retained by the Developer. It is intended that the OFTO will be able to obtain the full benefit of all available capital allowances. At the time of licence grant, when FTV will be defined, this will be translated into the FTV coinciding with the Assessed Costs, should no other conditions change.

Conclusion

3.109. In conclusion, in accordance with Regulation 4 of the Tender Regulations, the Authority has assessed the economic and efficient costs which ought to have been incurred in connection with developing and constructing the Transmission Assets as £666,094,752.

Appendices

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Appendix 1 - Glossary

A

Assessed Costs

The final assessment of costs determined by Ofgem through the cost assessment process for the Moray Offshore Windfarm (East) Limited Transmission Assets.

C

Capex

Capital Expenditure

CAT

Cost Assessment Template

Cost Assessment Guidance

Can be found here https://www.ofgem.gov.uk/sites/default/files/2022-03/Offshore%20Transmission%20Guidance%20for%20Cost%20Assessment%202022.pdf

D

Developer

Moray Offshore Windfarm (East) Limited

E

EPQ

Enhanced Pre-Qualification

EPCI

Engineering, Procurement, Construction and Installation

F

FTV CAT

The Developer cost assessment template submitted in February 2022

FTV

Final Transfer Value

G

GEMA

The Gas and Electricity Markets Authority

Generation Assets

The Moray East Windfarm Generation Assets

GT
Grant Thornton

I

IDC

Interest During Construction

InTV

Initial Transfer Value

ITT

Invitation to Tender

ITV

Indicative Transfer Value

ITV CAT

The Developer cost assessment template submitted in March 2021

ITV letter

The formal ITV letter issued to the Developer in October 2021

M

MW

Megawatt

O

OFTO

Offshore Transmission Owner

OFTO licence

See definition in Section 1 of this report

OFTO regime

See definition in Section 1 of this report

OTM

Offshore Transformer Module

P

PIM

Preliminary Information Memorandum detailing the Project's details released to EPQ bidders through the tender portal.

PM

Project Management

Project

The development and construction of the Transmission Assets

Q

QTT

Qualification to Tender

S

Section 8A Consultation

See definition in Section 2.13 of this report

T

Tender process

The competitive tender process run in accordance with the Tender Regulations through which OFTOs are granted offshore electricity transmission licences

Tender Regulations

The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2015

Transmission Assets

The Moray Offshore Windfarm (East) Limited Transmission Assets

TRS

Tender Revenue Stream