

<b>MSIP Re-opener Application – Inch Cape Offshore Wind Farm (Stage 2 submission) and SPT-RI-1742 Cockenzie LMS Scheme (Full Submission)</b>	
<b>Ofgem Scheme Reference/ Name of Scheme</b>	SPT200337 / Inch Cape Offshore Wind Farm; SPT200441 / SPT-RI-1742 Cockenzie LMS Scheme.
<b>Investment Category</b>	Local Enabling (Entry)
<b>Primary Investment Driver</b>	Connection of customer-driven offshore wind generation
<b>Licence Mechanism/ Activity</b>	Special Condition 3.14 Medium Sized Investment Projects Re-opener and Price Control Deliverable/ Clause 3.14.6 (a) relating to the Inch Cape Offshore Wind Farm works  Special Condition 3.14 Medium Sized Investment Projects Re-opener and Price Control Deliverable/ Clause 3.14.6 (g) / (i) iii relating to the SPT-RI-1742 works
<b>Materiality Threshold exceeded (£3.5m)</b>	Inch Cape Offshore Wind Farm: Yes, as a single project due to the threshold for activity 3.14.6 (a). SPT-RI-1742: No.
<b>PCD primary Output</b>	Inch Cape Offshore Wind Farm: Generation (MW) SPT-RI-1742: Protection & Control Equipment
<b>Total Project Cost (£m)</b>	Inch Cape Offshore Wind Farm - £3.770m SPT-RI-1742: Protection & Control Equipment - £0.663m
<b>Funding Allowance (£m)</b>	To be confirmed <span style="float: right;">Requested: - £3.770m (Inch Cape) - £0.663m (SPT-RI-1742)</span>
<b>Delivery Year</b>	Inch Cape Offshore Wind Farm: 2025/26 SPT-RI-1742: Protection & Control Equipment: 2026/27
<b>Reporting Table</b>	Annual RRP – PCD Table
<b>PCD Modification Process</b>	Special Condition 3.14, Appendix 1

<b>Issue Date</b>	<b>Issue No</b>	<b>Amendment Details</b>
31 <sup>st</sup> January 2025	1	First issue of document.

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## 1. Abbreviations / Terminology

Table 1: Table of Abbreviations

Abbreviation	Term
ACM	Asbestos Containing Material
AIS	Air Insulated Switchgear
BEIS	Department for Business, Energy & Industrial Strategy
CDM	Construction Design and Management
CEC	Connection Entry Capacity
CION	Connection and Infrastructure Options Note
CT	Current Transformer
ESO	Electricity System Operator
GSP	Grid Supply Point
ITT	Invitation to Tender
Km	Kilometre
kV	Kilovolt
LC	Licence Condition
LMS	Load Management Scheme
LSpC	Licence Special Condition
MSIP	Medium Sized Investment Project
MW	Megawatt
NESO	National Energy System Operator
NETS SQSS	National Electricity Transmission System Security and Quality of Supply Standard
NGET	National Grid Electricity Transmission
NGESO	National Grid Electricity System Operator
NOA	Network Options Assessment
OHL	Overhead Line
PCD	Price Control Deliverable
RIIO	Revenue = Incentives + Innovation + Outputs
SCADA	Supervisory Control and Data Acquisition
SGT	Supergrid Transformer
SHET	Scottish Hydro Electric Transmission
SPT	SP Transmission
SPEN	SP Energy Networks
STC	System Operator – Transmission Owner Code
VDUM	Volume Driver Uncertainty Mechanism
VT	Voltage Transformer

## 2. Reference Documents

Table 2: Table of Reference Documents

Document Reference	Title
SPEN-RIIO-T2_Business_Plan	SP Energy Networks RIIO T2 Business Plan 2021 - 2026
RIIO-T2 MSIP Re-opener Application - Stage 1	Branxton 400kV Substation

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### 3. Introduction

In January 2022 SP Transmission (SPT) submitted a Medium Sized Investment Projects (MSIP) Re-opener Application to Ofgem, setting out its plans to carry out infrastructure work at Cockenzie 275kV Substation, within the RIIO-T2 period (April 2021 – March 2026), to facilitate the connection of the 1080MW Inch Cape Offshore Wind farm.

Since the Stage 1 submission the developer of the Inch Cape project has submitted a modification application and a new application (March 2024) via the National Energy System Operator (NESO), to split the original Connection Agreement (for 1080MW across two Points of Connection) into two individual Connection Agreements (each connecting 540MW). These are now known as Inch Cape Offshore Wind Farm Platform 1 and Inch Cape Offshore Wind Farm Platform 2. This change has no impact on the overall works planned to be carried out at Cockenzie 275kV Substation or the total costs relating to the project. The splitting of the Inch Cape connection into two individual contracts would now derive an allowance for each, however, this results in no overall change from a financial viewpoint i.e. an MSIP Re-opener application is still required for the now two connections as can be seen in both Table 3 and in Section 6.6.

It should be noted that this Stage 2 MSIP Re-opener also includes the Load Management Scheme (SPT-RI-1742 Cockenzie LMS Scheme) which is required to be installed alongside the Inch Cape Offshore Wind Farm. This operational tripping scheme is classified as a Category 2 Intertripping Scheme as defined in the Grid Code.

In line with the provisions of the RIIO-2 Re-opener Guidance and Application Requirements Document<sup>1</sup> and as agreed with Ofgem, SPT separated the MSIP Re-Opener application related to Inch Cape Offshore Wind Farm into two stages:

Stage 1: providing full justification for the preferred investment option, together with a detailed description of the proposed solution; and

Stage 2: a further submission, to be made at the right time, relating to the associated amendments to the outputs, delivery date and allowances to be detailed as a Price Control Deliverable (PCD) in LSpC 3.14 Appendix 1.

SPT's Inch Cape Offshore Wind Farm MSIP Re-opener Application of January 2022 formed Stage 1 of this application<sup>2</sup>.

In April 2022 Ofgem published its provisional decision on its first stage assessment of SPT's Inch Cape Offshore Wind Farm MSIP Re-opener Application, noting that "repurposing former Cockenzie power station bays represented the optimal solution" in terms of facilitating the Inch Cape Offshore Wind Farm connection into Cockenzie 275kV substation<sup>3</sup>.

This document, which should be read in conjunction with the Stage 1 submission referenced above, forms SPT's Inch Cape Offshore Wind Farm Stage 2 submission as part of the MSIP Re-opener Application, submitted in accordance with Licence Special Condition (LSpC) 3.14.6 and relates specifically to LSpC 3.14.6 activity (a):

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<sup>1</sup> [RIIO-2 Re-opener Guidance and Application Requirements Document: Version 3](#)

<sup>2</sup> [2022-01-31 Inch Cape - Stage 1 MSIP Reopener Application](#)

<sup>3</sup> [Provisional decision on the first stage assessment of SPT's MSIP re-opener application](#)

*“3.14.6 The licensee may apply to the Authority for a direction amending the outputs, delivery dates or associated allowances in Appendix1 in relation to one or more of the following activities:*

- (a) a Generation Connection project, including all infrastructure related to that project, the forecast costs of which are at least £4.24m more or less than the level that could be provided for under Special Condition 3.11 (Generation Connections volume driver)”*

The table below shows the estimated cost of each connection (Inch Cape Platform 1 and Inch Cape Platform 2) against the RIIO-T2 Generation Connections Volume Driver Uncertainty Mechanism (VDUM) and shows the VDUM exceeds the £4.24m threshold.

Table 3 - Summary of Project Costs Compared with VDUM

Connection	Project Cost (18/19 Prices)	RIIO T2 VDUM Allowance (18/19 Prices)	Delta
<b>Inch Cape Platform 1</b>			
<b>Inch Cape Platform 2</b>			

In relation to the SPT-RI-1742 Load Management Scheme SPT is proposing to make the “full submission” for this scheme alongside the Inch Cape connection as this scheme is required to fulfil the Inch Cape connection. The MSIP Re-opener application for SPT-RI-1742 is submitted in accordance with Licence Special Condition (LSpC) 3.14.6 and relates specifically to LSpC 3.14.6 activities (g) and (i):

*“3.14.6 The licensee may apply to the Authority for a direction amending the outputs, delivery dates or associated allowances in Appendix1 in relation to one or more of the following activities:*

- (g) Projects that are needed in order to meet NETS SQSS requirements regarding security, or system operability*
- (i) Protection projects that are needed following:
 
  - iii. system studies by the System Operator or the licensee showing a need for an operational intertrip.**

The needs case for the Load Management Scheme and the factors that have an impact on the timing and scope of works are discussed in the following sections. Full justification for the preferred investment option is presented, together with a detailed description of the proposed solution. The costs presented in Section 6 are market-tested. The project delivery plan is detailed in Section 7.

### **3.1 Structure of Document**

This MSIP Re-opener application is structured as follows:

#### **Section 4 – Background and Needs Case**

The background and need case for the Inch Cape Offshore Wind Farm proposed works was described in detail within the SPT’s Stage 1 MSIP Re-opener application submission of January 2022. This section therefore summarises only relevant updates in the period since the Stage 1 submission for this project detailing as well key project drivers for SPT-RI-1742 Cockenzie LMS Scheme.

#### **Section 5 – Proposed Works**

The description of the proposed solution and project scope for Inch Cape Offshore Wind Farm was described in detail within the SPT’s Stage 1 MSIP Re-opener application submission of January 2022. This section therefore summarises only relevant refinement and confirmation in scope in the period since Stage 1 submission for this project including also proposed works for SPT-RI-1742 Cockenzie LMS Scheme.

#### **Section 6 – Project Cost Estimate**

This section summarises the estimated cost of the selected options.

#### **Section 7 – Project Delivery**

This section outlines the approach which is being taken to deliver the projects.

#### **Section 8 – Conclusions and Recommendations**

This section summarises the conclusions and includes recommendations to be taken.

### **3.2 Requirements Mapping Table**

Table 4 maps the requirements set out within Chapter 3 of the RIIO-T2 Re-opener Guidance and Application Requirements Document<sup>4</sup> against specific sections within this document.

Table 4: Requirements Mapping Table

Section	Description	Relevant Section(s) in RIIO-T2 Re-opener Guidance and Application Requirements Document
3	Introduction	3.3, 3.4
4	Background and Needs Case	3.8, 3.11
5	Proposed Works	3.14
6	Project Cost Estimate	3.12, 3.19, 3.20
7	Project Delivery	3.15, 3.16, 3.17

<sup>4</sup> [RIIO-2 Re-opener Guidance and Application Requirements Document: Version 3](#)



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#### 4. Background and Needs Case

SPT's Inch Cape Offshore Wind Farm Stage 1 MSIP Re-opener Application of January 2022 (Section 4) described in detail the background and needs case for the proposed works. Both the needs case and proposed works were supported by Ofgem in its provisional decision of April 2022.

This section therefore summarises only relevant updates in the period since the Stage 1 submission also detailing the need case for SPT-RI-1742.

The need case for the proposed works remains unchanged.

##### 4.1 Change to Inch Cape Offshore Wind Farm Contracted Position

In March 2024 the developer for the Inch Cape Offshore Wind Farm connection submitted a modification application to the NESO seeking to split the original Inch Cape connection agreement into two individual connections, known as Inch Cape Offshore Wind Farm Platform 1 and Inch Cape Offshore Wind Farm Platform 2. This contractual change does not have any impact on the physical scope of works required to be completed at Cockenzie 275kV substation. The single line diagram below shows the scope of works to be completed at Cockenzie 275kV substation.

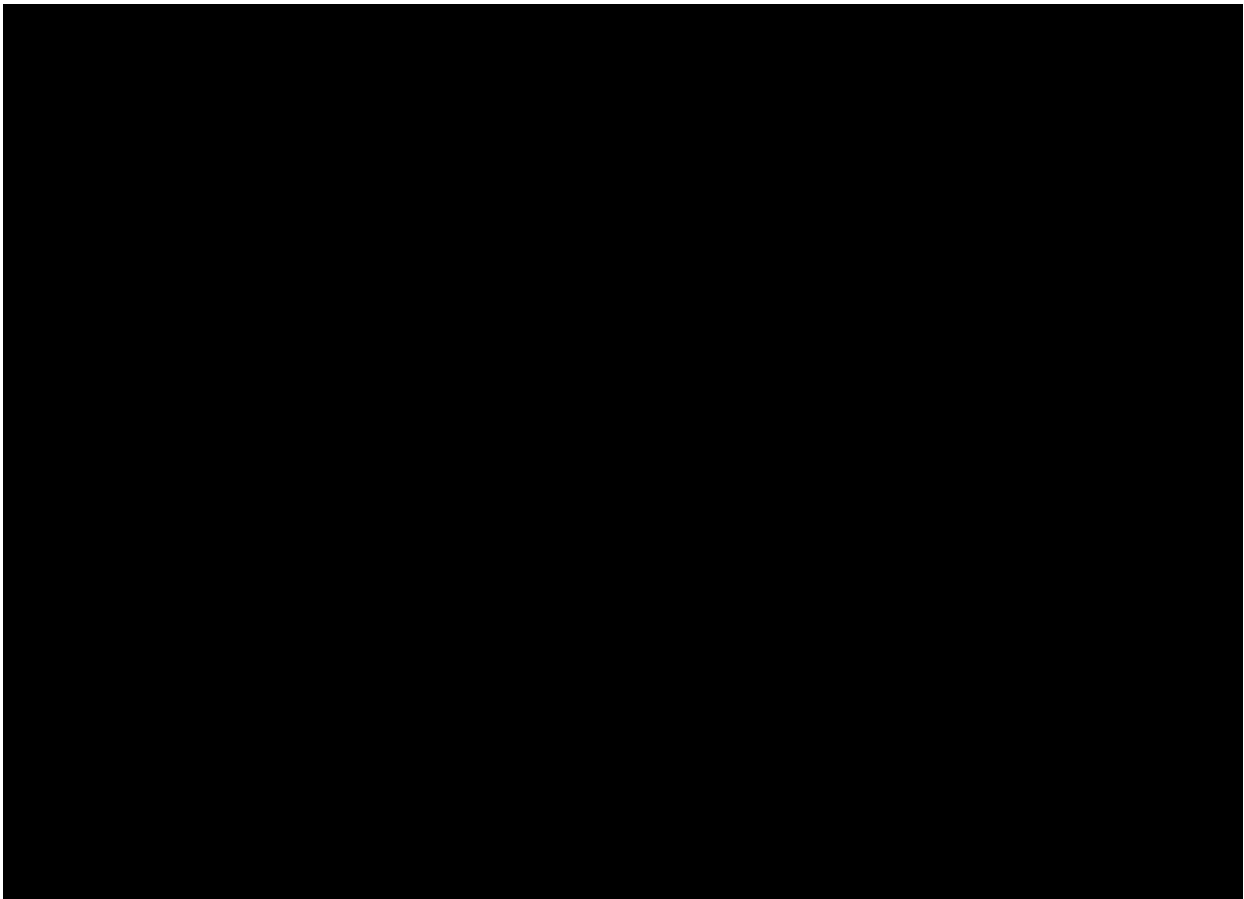


Figure 1 - Single Line Diagram of Works Denoting Inch Cape Platform 1 and Platform 2

##### 4.2 Requirement for Load Management Scheme

A Load Management Scheme (LMS) will be installed alongside the new Inch Cape connections, providing an economic means of operating the transmission system under outage conditions while protecting the system from overloads. This LMS is classified as a Category 2 Intertripping Scheme as

defined within the Grid Code. This scheme is required to ensure the system does not become overloaded in the event of an outage followed by the secured event of the loss of a double circuit overhead line and will operate under the following conditions:

Table 5 - TORI 1742 Cat 2 Tripping Conditions

Condition	System Maintenance Condition	Trip Condition	Overload Condition	Action

The need for this scheme has been contracted alongside Inch Cape, and other connections due to connect into Cockenzie 275kV substation. The list of generators that need to subscribe to this LMS are noted below:

1. Inch Cape Offshore Wind Farm (Platform 1 and Platform 2)



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## 5. Proposed Works

SPT's Inch Cape Offshore Wind Farm Stage 1 MSIP Re-opener application submission of January 2022 (Sections 5 and 6) described in detail the scope of the proposed works. This scope of work was supported by Ofgem in its provisional decision of April 2022. This section therefore summarises only relevant refinement/ confirmation in scope in the period since the Stage 1 submission and provides a status update, including the proposed scope of works for SPT-RI-1742 Cockenzie LMS scheme.

### 5.1 Confirmation of Project Scope - Inch Cape Offshore Wind Farm

As noted in Section 4.1 contractually the Inch Cape connection has changed from being a single connection with two Transmission Interface Points connecting 1080MW to two connections, each with a single Transmission Interface Point and connecting 540MW (still totalling 1080MW). This contractual change does not have any impact on the physical scope of works required to be completed at Cockenzie 275kV substation however.

The Inch Cape Offshore Wind Farm Platform 1 connection at Cockenzie 275kV Substation will be provided by establishing a two circuit-breaker configuration in Bay 3. This bay will be re-constructed such that any future return to breaker and a half configuration can be accommodated. The existing relay room has sufficient space to install the associated protection and control equipment.

The Inch Cape Offshore Wind Farm Platform 2 connection at Cockenzie 275kV Substation will be provided by retaining the existing breaker and a half configuration and partly refurbishing Bay 5. The original air blast circuit breakers were replaced in 2003 with SF<sub>6</sub> circuit-breakers, which will be retained, but the associated 1960s disconnectors and earth switches will be replaced. The existing CTs and VTs are not suitable for re-use and will also be replaced. The existing relay room has sufficient space to install the associated protection and control equipment.

As described in the Stage 1 submission (Section 6), the Interface Points between the Onshore Transmission Systems and Inch Cape Offshore Transmission System (Platform 1 and Platform 2) will be located at the busbar clamps at the top of the 275kV cable sealing ends, which will be installed by the developer at the 9.3m level within the Cockenzie 275kV Substation building. The developer is responsible for all works between the offshore wind farm and the onshore Interface Points. SPT is responsible for the remainder of the connection works (to which this MSIP Re-opener application relates).

The following new plant and equipment will be installed:

- 275kV circuit breakers (Bay 3 only)
- 275kV disconnectors with integral earth switches
- 275kV free-standing earth switch (Bay 3 only)
- 275kV surge arresters
- 275kV current transformers
- 275kV capacitive voltage transformers, with power quality monitoring
- 275kV post insulators
- 275kV busbars, flexible conductors, connectors and clamps
- Protection and control equipment

Due to the specific indoor design of Cockenzie 275kV Substation, the new 275kV disconnectors and circuit breakers will require to be of non-standard design e.g. to ensure phase to earth clearance from

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the building steelwork and 9.3m level above, the maximum height from ground level of the new circuit breakers is approximately 6.150m, requiring a horizontal live tank interrupter design.

The final proposed configuration at Cockenzie 275kV Substation is indicated in Figure 2 . This figure denotes “Inch Cape 1” which represents the Inch Cape Platform 1 connection and likewise “Inch Cape 2” represents Inch Cape Platform 2.

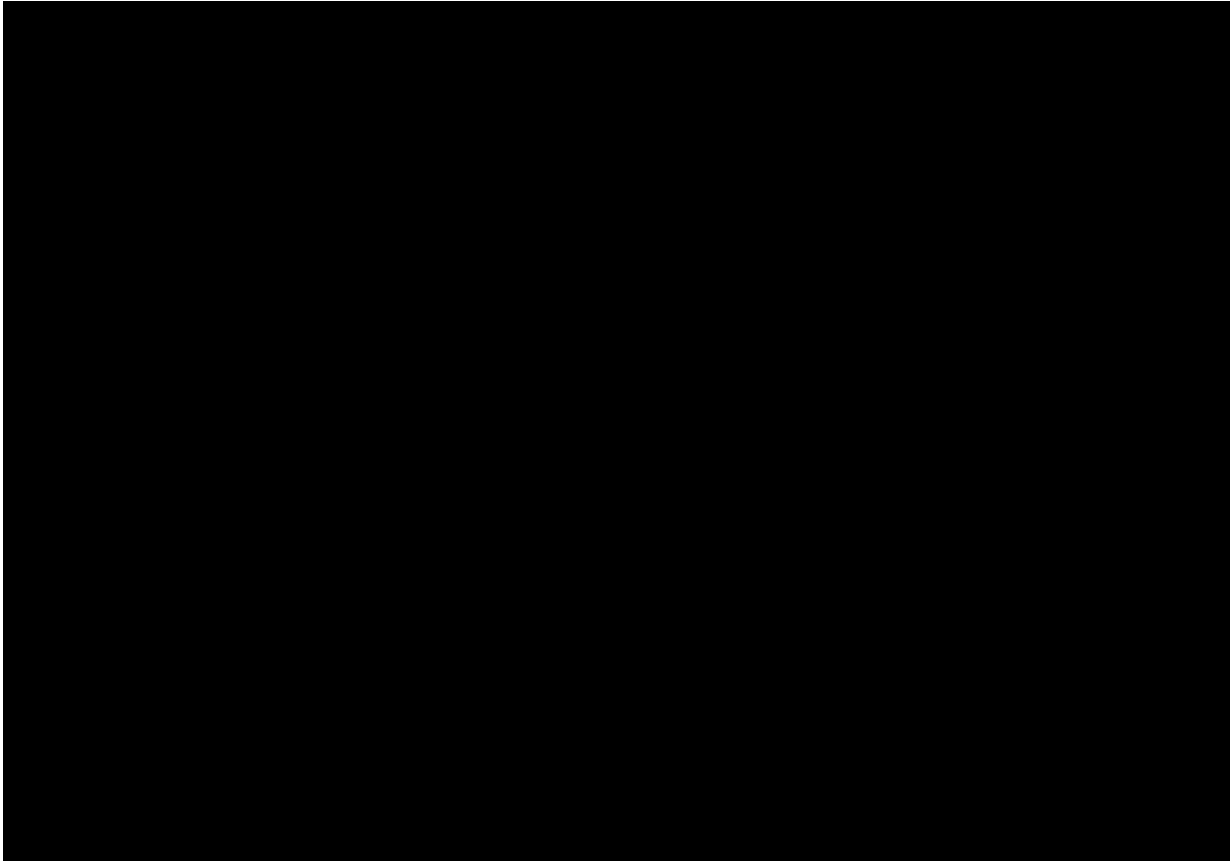


Figure 2 - Proposed Configuration – Cockenzie 275kV Substation

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## 5.2 Project Status Update – Inch Cape Offshore Wind Farm.

This section includes a brief status update on the proposed works described in the Stage 1 submission (Section 6):

### a) Environmental and Consent Related Works

To date, all required surveys have been completed.

### b) Civil Engineering Works

As an update from the Stage 1 submission, these works have not yet started due to ongoing design discussions with the developer. The current plan is to go to tender in Q1 2025.

### c) Existing Building Structure

As an update from the Stage 1 submission, after initial surveys of the existing Cockenzie Substation building, additional access works were completed including external, high level access to the respective Inch Cape Bays in order to facilitate access during construction, as well as future access and maintenance.

### d) Demolition and Dismantling Works

As an update from the Stage 1 submission, these works have not yet started due to ongoing design discussions with the developer. The current plan is to go to tender in Q1 2025.

### e) Structures and Foundations

As an update from the Stage 1 submission, these works have not yet started due to ongoing design discussions with the developer. The current plan is to go to tender Q1 2025.

### f) Cable Trenches

As an update from the Stage 1 submission, these works have not yet started due to ongoing design discussions with the developer. The current plan is to go to tender Q1 2025.

## 5.3 Scope of works – SPT-RI-1742 Cockenzie Load Management Scheme

Figure 3 below shows the high-level single line diagram for the SPT-RI-1742 LMS which will place devices at Cockenzie, Smeaton, Kaimes and Eccles to monitor the position of identified circuit breakers and disconnectors.



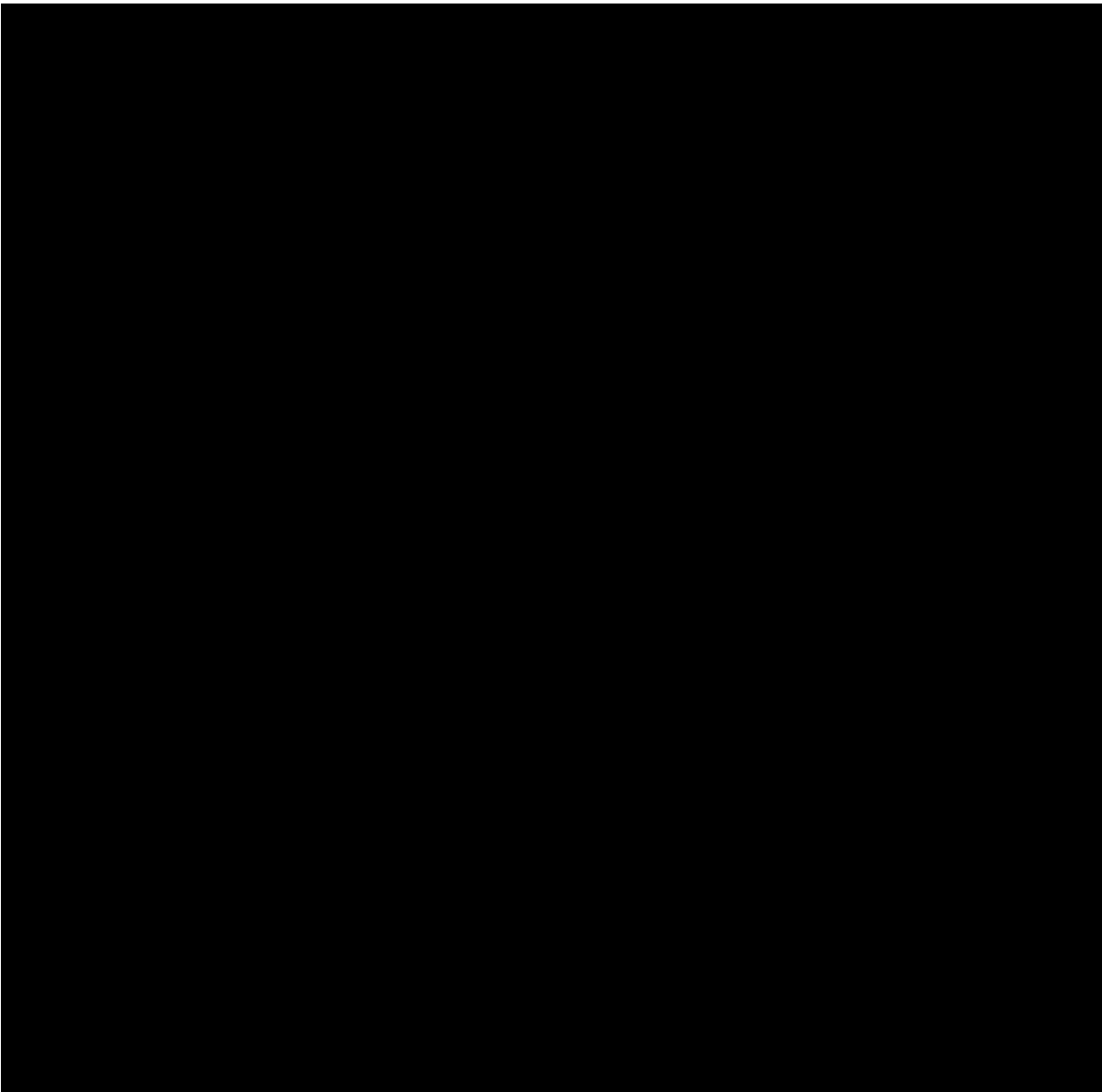


Figure 3 - Single Line Diagram of SPT-RI-1742 Functionality

#### **5.4 Environmental and Consent Related works.**

SPT works are all within Cockenzie 275kV Substation and no land acquisition or planning consent is required. Due to the age of the existing assets at Cockenzie 275kV Substation, asbestos containing materials (ACMs) are known to be present. Appropriate precautions will require to be taken to contain any hazards resulting from construction activities, notably, work on the multicore cable trenches within the building.

A detailed asbestos survey was carried out which informed the construction working methods. Any further asbestos identified will be removed in accordance with the relevant regulations.

## 6. Project Cost Estimate

As agreed with Ofgem, a stage 2 submission will be made for Inch Cape Offshore Wind Farm relating to the associated amendments to the outputs, delivery date and allowances to be detailed in LSpC 3.14 Appendix 1.

Likewise a full submission is being included to capture the works and costs required as part of the SPT-RI-1742 Cockenzie Load Management Scheme. The cost estimates included with this section include all contracts required for the completion of both “Inch Cape Offshore Wind Farm” and “SPT-RI-1742 Cockenzie LMS scheme” projects.

### 6.1 Estimated Total Project Cost for Inch Cape Offshore Wind Farm

Aligned with the format of the Re-Opener Pipeline Log, Table 6 details expected energisation year and our current view of potential direct capital expenditure in RIIO-T2.

Table 6 - Estimated Incidence of Expenditure – Inch Cape

Energisation Year	Pre-RIIO-T2: direct capex	Potential direct capex value per year, £m, 18/19 price base							RIIO-T2 Total: direct capex	Total: direct capex
		Yr. 21/22: direct capex	Yr. 22/23: direct capex	Yr. 23/24: direct capex	Yr. 24/25: direct capex	Yr. 25/26: direct capex	Yr. 26/27 (T3): direct capex	Yr. 27/28 (T3): direct capex		
2025/26	0.000	0.000	0.000	0.200	0.849	2.720	0.000	0.000	<b>3.770</b>	<b>3.770</b>

The costs noted above are for the works to facilitate both the Inch Cape Offshore Wind Farm Platform 1 and Platform 2 costs.

### 6.2 Estimated Total Project Cost for SPT-RI-1742 Cockenzie LMS Scheme

Aligned with the format of the Re-Opener Pipeline Log, Table 7 details expected energisation year and our current view of potential direct capital expenditure in RIIO-T2.

Table 7 - Estimated Incidence of Expenditure – SPT-RI-1742

Energisation Year	Pre-RIIO-T2: direct capex	Potential direct capex value per year, £m, 18/19 price base							RIIO-T2 Total: direct capex	Total: direct capex
		Yr. 21/22: direct capex	Yr. 22/23: direct capex	Yr. 23/24: direct capex	Yr. 24/25: direct capex	Yr. 25/26: direct capex	Yr. 26/27 (T3): direct capex	Yr. 27/28 (T3): direct capex		
2026/27	0.000	0.000	0.000	0.000	0.000	0.406	0.258	0.000	0.406	0.663

**6.3 Detailed Costs**

Tables 8 and 9 below provides a cost breakdown representing the latest view of Direct costs for the proposed investment, including details of the procurement strategy and the cost maturity for each contract.

Table 8 - Direct Costs, Procurement Strategy and Cost Firmness – Inch Cape

Contract Name	Contract Start	Current Finish Date	Cost (£m)	Procurement Strategy	Cost Firmness
<b>Total</b>			<b>3.770</b>		

Table 9 - Direct Costs, Procurement Strategy and Cost Firmness – SPT-RI-1742

Contract Name	Contract Start	Current Finish Date	Cost (£m)	Procurement Strategy	Cost Firmness
<b>Total</b>			<b>0.663</b>		



**6.4 Procurement Strategy**

SPT Procurement strategy follows a disaggregated model, within which contracts are disaggregated and tendered separately to maximise cost efficiencies. On this project the major contract is the Balance of Plant works, which includes a small element of Civils, allowed for the works at Cockenzie 275kV Substation for the connection of Inch Cape Windfarm.

SPT also procure several items of equipment directly with manufacturers, utilising ongoing frameworks SPT have in place with various suppliers. These frameworks are tendered competitively to achieve the best market rates and are valid for a period of 2 years, giving cost certainty and best market rates.

Individual contract tendering details are included in the Table provided in Section 6.3.

**6.5 Cost Maturity**

Aligned with the classification outlined within the “OFGEM Class of Estimate” tab included in the “ET2 UM Submission Template” the tables below include the assessment of cost firmness for each project:

Status of individual contracts is detailed in Table 8 and Table 9 provided in Section 6.3.

Table 10 - Cost Firmness Assessment – Inch Cape

Cost Firmness as per OFGEM classification	Total Direct Cost (£m)	Total Cost (%)
<b>TOTAL</b>	<b>3.770</b>	<b>100%</b>

Table 11 - Cost Firmness Assessment – SPT-RI-1742

Cost Firmness as per OFGEM classification	Total Direct Cost (£m)	Total Cost (%)
<b>TOTAL</b>	<b>0.663</b>	<b>100%</b>

As it can be seen in Tables 10 and 11, only [REDACTED] (Inch Cape) and [REDACTED] (SPT-RI-1742) of the total costs are either incurred already or have been contracted.

This submission is made in compliance with the instruction included within RIIO-T3 Sector Specific Methodology Decision for the Gas Distribution, Gas Transmission and Electricity Transmission Sectors<sup>8</sup> ET Specific Annex, Paragraph 2.277, which states that projects with 50% or more expenditure within RIIO-T2 price control period should submit full project allowance request within January 2025 MSIP re-opener window.

The project is included in RIIO-T3 Business Plan Data Table, “6.1\_Scheme C&V\_Load\_Actuals”, with the Licence Term of MSIPRE<sub>t</sub> and Project Flag “T2 carry over- no cost assessment” as our understanding is that the full project cost assessment will be completed as part of this MSIP submission.

**6.6 Project Risk and Mitigation**

Table 12 below provides a breakdown of the individual project risks followed by further detailed explanation regarding mitigation and likelihood. The provision for risk at [REDACTED] and [REDACTED] for Inch Cape Offshore Windfarm and SPT-RI-1742 Cockenzie LMS Scheme respectively of the cost is proportionate and justified.

Table 12 - Risk Quantification

Risk	Description	Inch Cape		SPT-RI-1742	
		Probability	Value (£m)	Probability	Value (£m)
[REDACTED]					

[Redacted content]

## 6.7 Potential Volume Driver Allowance

As noted in Section 4.1 the Inch Cape Offshore WF connection since the Stage 1 submission has been split into two individual contracts. This has no bearing on the scope of works to be completed by SPT nor does it have any bearing on the requirement for consideration under the MSIP Reopener mechanism, however, this is outlined below where application of the VDUM under the “new” contracted position, i.e. two connections of 540MW each, is shown.

### 6.7.1 VDUM as per MSIP Stage 2 Submission

Given the contractual change from the developer for the Inch Cape connection to split into two separate connections this generates separate VDUM allowances for each connection (Platform 1 and Platform 2). These allowances are noted below. This is important to highlight because the split to two connections would not simply half the allowance noted in the Stage 1 submission (Section 7.2) because the fixed allowance element of £1.7m would apply to each connection. As show below in Table 13.1 and 13.2 each connection produces a VDUM allowance of £7.100m.

Please note that this excludes the further allowance permitted under Licence Special Condition 3.36 Opex escalator.

Table 13.1: Volume Driver Allowance for Inch Cape Platform 1

Volume Driver (2018/19 price base)		£m/unit	Unit	Volume Driver Allowance (£m)
<b>Project</b>	Fixed Cost	1.700	1.00	1.700
<b>Sole Use</b>	Generation Connection Capacity, MW	0.010	540	5.400
<b>Total</b>				<b>7.100</b>

Table 13.2: Volume Driver Allowance for Inch Cape Platform 2

Volume Driver (2018/19 price base)		£m/unit	Unit	Volume Driver Allowance (£m)
<b>Project</b>	Fixed Cost	1.700	1.00	1.700
<b>Sole Use</b>	Generation Connection Capacity, MW	0.010	540	5.400
<b>Total</b>				<b>7.100</b>

### 6.7.2 Comparison of Project Costs vs. Volume Driver Allowance

The tables below note the allowance generated by each Volume Driver Allowance and compares this to the costs associated with each Inch Cape Platform.

Table 13.3: Comparison of Volume Driver Allowance and Estimated Cost for Inch Cape Platform 1

Description	Pre-RIIO-T2: direct capex	Potential direct capex value per year, £m, 18/19 price base							RIIO-T2 Total: direct capex	Total: direct capex
		Yr. 21/22: direct capex	Yr. 22/23: direct capex	Yr. 23/24: direct capex	Yr. 24/25: direct capex	Yr. 25/26: direct capex	Yr. 26/27 (T3): direct capex	Yr. 27/28 (T3): direct capex		
<b>Allowance</b>	0.000	0.000	1.775	1.775	1.775	1.775	0.000	0.000	7.100	7.100

As shown above the potential VDUM allowance for the Inch Cape Platform 1 connection is higher than the estimated cost by [REDACTED]. This is more than £4.240m, which is the threshold set in LSpC 3.14.6(a) for consideration under this uncertainty mechanism.

Table 13.4: Comparison of Volume Driver Allowance and Estimated Cost for Inch Cape Platform 2

Description	Pre-RIIO-T2: direct capex	Potential direct capex value per year, £m, 18/19 price base							RIIO-T2 Total: direct capex	Total: direct capex
		Yr. 21/22: direct capex	Yr. 22/23: direct capex	Yr. 23/24: direct capex	Yr. 24/25: direct capex	Yr. 25/26: direct capex	Yr. 26/27 (T3): direct capex	Yr. 27/28 (T3): direct capex		
<b>Allowance</b>	0.000	0.000	1.775	1.775	1.775	1.775	0.000	0.000	7.100	7.100

As shown above the potential VDUM allowance for the Inch Cape Platform 2 connection is higher than the estimated cost by [REDACTED]. This is more than £4.240m, which is the threshold set in LSpC 3.14.6(a) for consideration under this uncertainty mechanism.

### 6.8 Total Allowance Request

SPT requests that the following allowance is provided through the MSIP Re-opener mechanism to deliver the works described within Section 5. The requested MSIP allowance will be subject to the Opex escalator mechanism:

Table 14: Requested Direct Allowances

Project	Direct allowance requested per year, £m, 18/19 price base						Total (£m)
	Yr. 21/22:	Yr. 22/23:	Yr. 23/24:	Yr. 24/25:	Yr. 25/26:	Yr. 26/27:	
<b>Inch Cape Offshore Wind Farm</b>	0.000	0.000	0.200	0.849	2.720	0.000	<b>3.770</b>
<b>SPT-RI-1742 Cockenzie LMS scheme</b>	0.000	0.000	0.000	0.000	0.406	0.258	<b>0.663</b>

An aggregated view of the total cost is outlined in Tables 15 and 16 below:

Table 15: Total Price Control Project Cost Aggregated view – Inch Cape

Category	Total Price Control Project Cost (£m)	Price Control Direct Cost (£m)	Contractor Indirects* (£m)	SPT Indirects (£m)
[Redacted Content]				

\* Contractor Indirects costs are only shown for reference and have been excluded from the potential direct capital expenditure to be funded via the MSIP Re-opener mechanism.

Table 16: Total Price Control Project Cost Aggregated view – SPT-RI-1742

Category	Total Price Control Project Cost (£m)	Price Control Direct Cost (£m)	Contractor Indirects* (£m)	SPT Indirects (£m)

\* Contractor Indirects costs are only shown for reference and have been excluded from the potential direct capital expenditure to be funded via the MSIP Re-opener mechanism.

## 6.9 Regulatory Outputs

It is proposed that the associated Price Control Deliverables are defined as follows:

Table 17: Price Control Deliverable – Inch Cape

OSR	Scheme Name	Output	Allowance* (Oncosted)	Delivery Date
<b>SPT200337</b>	Inch Cape Offshore Wind Farm	Delivery of the works required to facilitate the Inch Cape Offshore Wind Farm connections (Platform 1 and Platform 2) as detailed in this Stage 2 MSIP submission.	£4.275m	31 <sup>st</sup> December 2025

\*Include Indirect costs calculated using the Opex Escalator uplift (13.4%) on Direct costs.

Table 18: Price Control Deliverable – SPT-RI-1742

OSR	Scheme Name	Output	Allowance* (Oncosted)	Delivery Date
<b>SPT200441</b>	SPT-RI-1742 – Cockenzie Category 2 Load Management Scheme	Installation of Load Management Scheme to manage network conditions in the Cockenzie area as detailed in Section 4.2 of Stage 2 MSIP submission).	£0.752m	31 <sup>st</sup> December 2026

\*Include Indirect costs calculated using the Opex Escalator uplift (13.4%) on Direct costs.

## **7. Project Delivery**

We have applied our project management approach to ensure that this project work is delivered safely, and in line with the agreed time, cost and quality commitments. We have a proven track record of delivering essential transmission network upgrade projects and will draw upon this knowledge and experience to effectively manage this project. We have assigned a dedicated Project Manager to this project who will be responsible for overall delivery of the scope and is the primary point of contact for all stakeholders.

### **7.1 Delivery Schedule**

A standard approach has been applied to the planning phase of this project and that will continue for the reporting and the application of processes and controls throughout the project lifecycle. Table 19 summarises the key project milestones within the delivery schedule.

Table 19: Key Project Milestone

Milestone	Project Phase	Completion Date (Inch Cape)	Completion Date (SPT-RI-1742)
<b>1</b>	ITT BoP Works	February 2025	February 2025
<b>2</b>	Award BoP Works	April 2025	April 2025
<b>3</b>	Commence Main Site works	May 2025	May 2026
<b>4</b>	Complete Site works	December 2025	December 2026

Regular meetings with the Project and Construction Management Teams shall be undertaken to assess the ongoing effectiveness of the Project Management interfaces.

The Project Manager will facilitate internal Project Team Meetings, in which project progress and deliverables will be reviewed and any arising risks or issues will be discussed and addressed.

### **7.2 Alignment with other projects**

The Inch Cape Offshore Wind Farm connection is one of several projects at Cockenzie 275kV Substation during the RIIO-T2 period. Other project works include:

- Cockenzie Building Improvement
- Cockenzie 275kV CT Replacement (33 units, driven by condition)
- Cockenzie 275kV CVT Replacement (20 units, driven by environmental legislation)
- Protection Modernisation
- [REDACTED]

The works for Inch Cape will be co-ordinated with these other projects.

The capital expenditure estimate in Section 6.1 is incremental to the projects detailed above and is related to the connection of Inch Cape Offshore Wind Farm.

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### 7.3 Quality Management

SPT adopts a “life cycle” approach to Quality Management in major project delivery. Our Management Systems are certified to ISO 9001, ISO 14001 and ISO 45001. Various areas applicable to these standards ensure a quality product is delivered. The significant areas detailed below:

#### 7.3.1 Quality Requirements During Project Development

Any risk or opportunity that may affect the quality of the product are detailed in the Project Risk Register (that is noted in Section 6.6 above).

The suppliers of main equipment may also receive a Factory Acceptance Test Inspection when the asset is being built.

#### 7.3.2 Quality Requirements in Tenders

Each contract that SPT issues has a standard format. Specifically in relation to quality, this will include a Contractors’ Quality Performance Requirement (CQPR). This CQPR represents a specification that details roles and responsibilities for all parties during the works, frequency and format of reporting. It will also specify the document management process to be adhered to during the delivery of the project. In addition to the CQPR, each project has a contract specific Quality Management Plan, detailing the inspection and testing regime for works as well as the records to be maintained.

#### 7.3.3 Monitoring and Measuring During Project Delivery

SPT Projects undertake regular inspections on projects and contractors to monitor and measure compliance with SPT Environmental, Quality and Health and Safety requirements, as detailed in the contract specifications for the work. All inspections are visual, with the person undertaking the inspection ensuring that evidence of the inspection and any actions raised are documented.

The following inspections are completed:

- Quality Inspections (monthly)
- Environmental Inspections (monthly, with weekly review by third party Environmental Clerk of Works)
- Safety Assessments & Contractor Safety Inspection (daily, with full time Site Manager)
- Project Management Tours (monthly)

The scope of audits and Inspections is to determine compliance with:

- Procedures & Guides
- Planned arrangements for ISO 9001, 14001 & 18001
- Legal and other requirements.

#### 7.3.4 Post Energisation

SPT Projects and SPT Operations carry out a Defect Liability Period Inspection within the Contract Defect Liability Period with the aim of identifying any defects and rectifying them with the contractors.

### 7.4 Stakeholder Engagement

SPT is committed to delivering optimal solutions in all of the projects we undertake. A key part of this is engaging with relevant stakeholders throughout the project development and delivery process. Stakeholders can include customers, regulatory bodies and other statutory consultees, national and local government, landowners, community groups, and local residents and their representatives (e.g., MPs, MSPs and councillors).



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Community impacts associated with construction activities are considered at project initiation by completion of a Community Communications Plan, which details the stakeholders relevant to the project, the communication channels that will be used to engage with them, the information that will be provided to and sought from them, and the timescales over which this will happen. It considers any particular sensitivities that may require increased stakeholder consultation and details specific events that will be held with stakeholders during the course of the project.

The developer of the Inch Cape Offshore Wind Farm has been engaged throughout the design/development phase of the project from initial connection application and CION development. The developer will continue to be fully engaged throughout the delivery of SPT's project works to ensure works are aligned where appropriate and the project programme is achieved. There will be minimal impact on the local community arising from SPT's works (Inch Cape Windfarm Connection and SPT-RI-1742) which are contained to SPT owned land and within the 275kV Substation building at Cockenzie.

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## 8. Conclusion and Recommendations

This MSIP Re-opener application outlines the works required at Cockenzie 275kV Substation to facilitate the connection of Inch Cape Offshore Wind Farm Platform 1 and Platform 2. This requires the modification of two existing 275kV bays at the substation, which previously connected former Cockenzie Power Station. Alongside this connection SPT requires to establish a Load Management Scheme which will manage the connection(s) for the identified conditions for this scheme.

The main conclusions of this submission are:

- The timely connection of low carbon generation, such as offshore wind, will play a vital role in reaching legislated net zero targets, and is aligned with SPT's RIIO-T2 strategic goals.
- It is necessary to invest in transmission infrastructure at Cockenzie 275kV Substation to facilitate the connection of 1080MW of contracted offshore wind generation (via the Platform 1 and Platform 2 connections), this having been identified as the most economic and efficient option.
- Applying the RIIO-T2 Generation Connections VDUM to the Inch Cape Platform 1 connection results in the [REDACTED] estimated cost being [REDACTED] lower than the £7.100m allowance provided by the VDUM. An MSIP Re-opener application is therefore required. Submission of this MSIP Re-opener application is aligned with the contracted connection programme.
- Applying the RIIO-T2 Generation Connections VDUM to the Inch Cape Platform 2 connection results in the [REDACTED] estimated cost being [REDACTED] lower than the £7.100m allowance provided by the VDUM . An MSIP Re-opener application is therefore required. Submission of this MSIP Re-opener application is aligned with the contracted connection programme.
- The requirement for SPT to establish a Load Management Scheme at Cockenzie 275kV substation to manage the connection(s) in this area.
- This submission is made in compliance with instruction included within RIIO-T3 Sector Specific Methodology Decision for the Gas Distribution, Gas Transmission and Electricity Transmission Sectors<sup>5</sup> ET Specific Annex, Paragraph 2.277, which states that projects with 50% or more expenditure within RIIO-T2 price control period should submit full project allowance request within January 2025 MSIP re-opener window.

SPT, respectfully, request Ofgem's agreement to the following:

- The option being progressed (supported by Ofgem in its provisional decision of April 2022) addresses a clear customer need and represents value to consumers.
- By virtue of being founded on market-tested costs, the proposed allowance value represents the real efficient cost of the works and should be fully funded.

- [REDACTED]

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<sup>5</sup> [RIIO-3 Sector Specific Methodology Decision for the Gas Distribution, Gas Transmission and Electricity Transmission Sectors | Ofgem](#)