

MSIP Re-opener Application Stage 2 – Branxton 400kV Substation			
Ofgem Scheme Reference/ Name of Scheme	SPT200168 / SPT200169 Branxton 400kV Substation		
Investment Category	Wider Works		
Primary Investment Driver	Connection of Eastern HVDC Link and customer-driven offshore wind generation		
Secondary Investment Driver	Preparation for the eventual closure of Torness Power Station and the rationalisation/ decommissioning of Torness 400kV Substation		
Licence Mechanism/ Activity	Special Condition 3.14 Medium Sized Investment Projects Re-opener and Price Control Deliverable/ Clause 3.14.6 (a) and (c)		
Materiality Threshold exceeded (£3.5m)	Yes, as a single project due to the threshold for activity 3.14.6 (a) and (c)		
PCD primary Output	Installation of Branxton 400kV Substation and provision of connection to Eastern HVDC Link		
Total Project Cost (£m)	84.605m		
Total Community Benefits Cost (£m)	0.6095m		
Funding Allowance (£m)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">To be confirmed</td> <td> Requested - £84.605m (Project) - £0.6095m (Community Benefits) </td> </tr> </table>	To be confirmed	Requested - £84.605m (Project) - £0.6095m (Community Benefits)
To be confirmed	Requested - £84.605m (Project) - £0.6095m (Community Benefits)		
Energisation Year	2028/29		
Delivery Year (completion of works)	2031/32		
Reporting Table	Annual RRP – PCD Table		
PCD Modification Process	Special Condition 3.14, Appendix 1		

Issue Date	Issue No	Amendment Details
31 st January 2025	1	First issue of Stage 2 document.

This page is intentionally blank.

Table of Contents

1.	Abbreviations / Terminology	5
2.	Reference Documents.....	6
3.	Introduction	7
3.1	Structure of Document.....	8
3.2	Requirements Mapping Table	9
4.	Background and Needs Case.....	9
4.1	Berwick Bank Offshore Wind Farm	9
4.2	Battery Storage Connections.....	9
4.3	NESO Connections Reform	10
5.	Proposed Works.....	11
5.1	Confirmation of Project Scope	12
5.1.1	Project Status Update	13
5.1.2	Environmental and Consent Related Works	13
6.	Project Cost Estimate.....	14
6.1	Estimated Total Project Cost	14
6.2	Detailed Costs.....	14
6.3	Procurement Strategy	17
6.4	Cost Maturity.....	17
6.5	Project Risk and Mitigation	18
6.6	Total Allowance Request	19
6.7	Regulatory Outputs	20
7.	Project Delivery.....	21
7.1	Delivery Schedule	21
7.2	Alignment with other projects	21
7.3	Quality Management.....	21
7.3.1	Quality Requirements During Project Development	21
7.3.2	Quality Requirements in Tenders	22
7.3.3	Monitoring and Measuring During Project Delivery	22
7.3.4	Post Energisation.....	22
7.4	Stakeholder Engagement	22
8.	Community Benefits	23

9. Conclusion and Recommendations.....	25
Appendix A - SP Transmission System, Geographic Overview.....	26

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
BESS	Battery Energy Storage System
CDM	Construction Design and Management
CEC	Connection Entry Capacity
CfD	Contract for Difference
CION	Connection and Infrastructure Options Note
CT	Current Transformer
EISD	Earliest In Service Date
ESO	Electricity System Operator
FES	Future Energy Scenario
FNC	Final Needs Case
GIS	Gas Insulated Switchgear
GSP	Grid Supply Point
HVDC	High Voltage, Direct Current
INC	Initial Needs Case
ITT	Invitation to Tender
Km	Kilometre
kV	Kilovolt
LC	Licence Condition
LOTI	Large Onshore Transmission Investment
LSpC	Licence Special Condition
MSIP	Medium Sized Investment Project
MW	Megawatt
NETS SQSS	National Electricity Transmission System Security and Quality of Supply Standard
NGESO	National Grid Electricity System Operator
NESO	National Energy System Operator
NGET	National Grid Electricity Transmission
NOA	Network Options Assessment
OFTO	Offshore Transmission Owner
OHL	Overhead Line
OTNR	Offshore Transmission Network Review
PCD	Price Control Deliverable
RIIO	Revenue = Incentives + Innovation + Outputs
SCADA	Supervisory Control and Data Acquisition
SGT	Supergrid Transformer

SHET	Scottish Hydro Electric Transmission
SPEN	SP Energy Networks
SPT	SP Transmission
SSER	SSE Renewables
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

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 establish the new 400kV substation known as Branxton in the East Lothian area. Branxton is a significant 400kV substation development on the eastern side of the SP Transmission (SPT) network, near Torness. As outlined within the Stage 1 submission in January 2022 there are four main aims for Branxton substation which are:

- Enable the timely and co-ordinated connection of the proposed 2,000MW Eastern HVDC Link to the northeast of England
- Prepare the network for the connection of a significant amount of offshore wind generation from the North Sea at Branxton, including the 2,300MW contracted Berwick Bank Offshore Wind Farm development.
- Prepare the network for the closure of Torness Power Station, currently expected in March 2030¹, and the subsequent rationalisation/ decommissioning of the Torness 400kV substation; and
- Eliminate thermal bottlenecks due to the capability of the original 400kV cable systems at Torness, which can impact both Scottish import and export capability.

Since the Stage 1 submission a significant number of Battery Energy Storage System (BESS) connections have become contracted to connect via Branxton, therefore Branxton will now enable the connection of up to 2400MW of BESS connections. This Stage 2 submission will go into further detail on these developments.

In line with the provisions of the RIIO-2 Re-opener Guidance and Application Requirements Document² and as agreed with Ofgem, SPT separated the MSIP Re-Opener application 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 MSIP Re-opener application submission of January 2022 formed Stage 1 of this application³.

In April 2022 Ofgem published its provisional decision on its first stage assessment of SPT's MSIP Re-opener application, noting *"the proposed construction of a new 400kV 21-bay Gas Insulated Switchgear (GIS) substation at Branxton and the subsequent substation works represented the optimal option."*⁴

This document, which should be read in conjunction with the Stage 1 submission, forms SPT's 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 activities (a) and (c):

¹ [EDF confirms nuclear power station life extensions](#)

² [RIIO-2 Re-opener Guidance and Application Requirements Document: Version 3](#)

³ [2022-01-31 Branxton - Stage 1 MSIP Reopener Application](#)

⁴ [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)*
- (c) a Boundary Reinforcement Project that has received a NOA Proceed Signal in the most recent NOA”*

The costs presented in Section 6 are market-tested and have a high degree of cost maturity. 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 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.

Section 5 – Proposed Works

The description of the proposed solution and project scope 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.

Section 6 – Project Cost Estimate

This section summarises the estimated cost of the selected option.

Section 7 – Project Delivery

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

Section 8 – Community Benefits

This section outlines the community benefits funding that should be attracted by the proposed works .

Section 9 – Conclusions and Recommendations

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

3.2 Requirements Mapping Table

Table 3 maps the requirements set out within Chapter 3 of the RIIO-T2 Re-opener Guidance and Application Requirements Document⁵ against specific sections within this document.

Table 3: 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

4. Background and Needs Case

SPT’s 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 which in the case of this project is the contracting of multiple battery storage projects which are outlined below.

The need case for the proposed works remains unchanged.

4.1 Berwick Bank Offshore Wind Farm

SPT’s Stage 1 MSIP Re-opener Application of January 2022 noted the Berwick Bank Offshore Wind Farm connecting 2300MW across six separate 400kV double busbar bays at Branxton 400kV Substation. The developer for this connection submitted a modification application to National Grid Electricity System Operator (NGESO), now the National Energy System Operator (NESO), to request a change from six separate Points of Connection to four separate Points of Connection. The revised connection offer was accepted by the developer in March 2023, changing the number of 400kV bays to be installed for the Berwick Bank connection from 6 bays to 4 bays.

SSE Renewables has received planning permission in principle from East Lothian Council, under the Town & Country Planning Act, for its onshore proposals for Berwick Bank Wind Farm.

4.2 Battery Storage Connections

Since the Stage 1 submission a significant number of Battery Energy Storage System (BESS) connections have applied for connection and become contracted to connect via Branxton, therefore, Branxton will now enable the connection of up to 2400MW of BESS connections. These individual connections are outlined in the sections below.

⁵ [RIIO-2 Re-opener Guidance and Application Requirements Document: Version 3](#)

Table 4 - Contracted BESS Generation into Branxton - January 2025

Site	Connection Status	Consent Status	Capacity (MW)
[Redacted Content]			
Total Capacity (MW)			2400

The connections noted above require new 400kV GIS bays to be installed at the Branxton substation, requiring an additional three bays to be established within the overall design for the Branxton substation.⁶ From Branxton substation individual 400kV cable circuits will be installed to the User’s substations.

4.3 NESO Connections Reform

As Ofgem is aware, a period of significant industry-wide connections reform activity is currently underway, led by the NESO. The NESO submitted its final connections reform recommendations to Ofgem for approval on 20th December 2024. With recent publication of the UK Government’s Clean Power 2030 Action Plan, the signal from the UK Government is clear in that connections reform must align with the ambitions of the Clean Power 2030 Action Plan, and that over-capacity of BESS, solar and onshore wind projects in the current connections queue must be addressed.

At the time of submitting this MSIP application Ofgem has yet to opine on its connections reform decision, and it is unclear which connecting projects will meet the necessary Connections Criteria for securing a Gate 2 connection offer by the end of May 2025, given the recent grandfathering provisions which have been announced.

This uncertainty could have an impact on the investment figures sought within this MSIP application. Where any contracted connecting parties fail to secure a Gate 2 connection offer following the Gate 2 to Whole Queue connections reform exercise, their securities and allocation of costs will also fall away. Where this is the case, this will impact the current capital expenditure requested by SPT in this Stage 2 MSIP application, albeit this will not affect the works as stated in this submission. Therefore, following completion of the Gate 2 to Whole Queue exercise, SPT will review the contracted parties due to connect into Branxton substation and will endeavour to inform Ofgem (i) where there is a change to the contracted connecting parties seeking to connect, and (ii) where there is any revision to the requested MSIP investment figures to reflect this change in the contracted background, for further Ofgem review.



5. Proposed Works

SPT's Stage 1 MSIP Re-opener Application 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. A single line diagram of Branxton 400kV Substation and the surrounding BESS connections is shown below in Figure 1. [REDACTED]

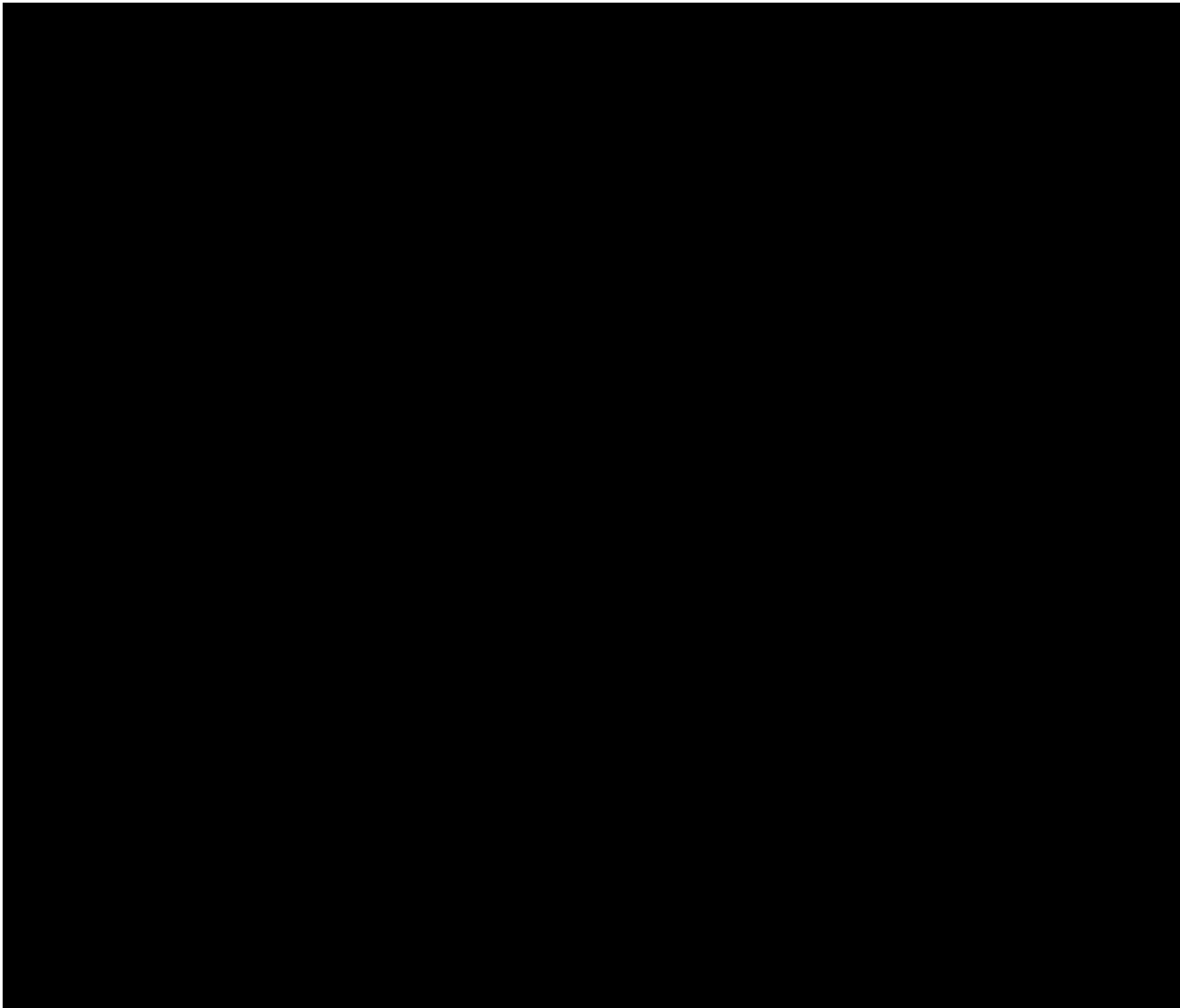


Figure 1 - Branxton 400kV Substation Single Line Diagram

5.1 Confirmation of Project Scope

The proposed location of Branxton 400kV Substation has not changed from the Stage 1 submission. It will be located [REDACTED] as shown below in Figure 2.



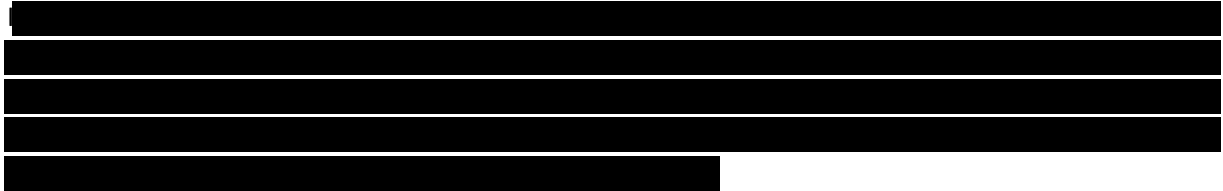
The Stage 1 MISIP application proposed that the development of Branxton substation was progressed on the basis of a 21 bay installation. Given the contractual change of Berwick Bank Offshore Wind Farm as well as the contracting of new BESS connections in the area, this has amended the number of bays to be installed as part of the initial delivery of Branxton 400kV substation from 21 bays to 22 bays. The detailed design of the site incorporates provision for future extension of the busbar system at a later date should this be necessary and is capable of accommodating a further 8 400kV bays (feeder bays, bus couplers and bus sections) to facilitate further offshore wind or associated developments.

Below is a list of the bays the site is designed to accommodate:

- 1 x 400kV feeder bay for the Crystal Rig / Torness circuit
- 1 x 400kV feeder bay for the Eccles No.1 / Torness circuit
- 1 x 400kV feeder bay for the Eccles No.2 400kV circuit
- 1 x 400kV feeder bay for the Strathaven (future Wishaw) 400kV circuit
- 2 x 400kV feeder bays for the Torness No.1 and No.2 circuits
- 2 x 400kV feeder bays for the Eastern Link No.1 and No.2 circuits
- 3 x 400kV bus couplers breakers
- 4 x 400kV bus section circuit breakers
- 4 x 400kV feeder bays for the [REDACTED]
- 1 x 400kV feeder bay for [REDACTED]
- 1 x 400kV feeder bay for [REDACTED]
- 1 x 400kV feeder bay for [REDACTED]

-
- Space for up to 5 x 400kV future feeder bays for future connections
 - Space for up to 1 x 400kV future bus coupler
 - Space for up to 2 x 400kV future bus sections

Direct GIS/cable terminations will be employed to help minimise the substation footprint and associated civil platform work.



5.1.1 Project Status Update

The sections below provide a brief status update on the proposed works described in the Stage 1 submission (Section 6):

Environmental and engineering surveys are complete.

Order placement and detailed design has been completed for the GIS/GIB switchgear layout and LV design.

Substation platform and haul road design has been completed and a construction contract is in place (includes haul road maintenance for duration of the construction works and removal upon completion).

Site works are planned to start in Q1 2025 with pre-development activities. Works are ongoing to discharge pre-start planning conditions to allow full scope to progress.

Detailed design is ongoing for substation civils, GIS building, OHL, cable works and P&C equipment.

5.1.2 Environmental and Consent Related Works

The Branxton 400kV Substation project required planning consent from East Lothian Council which was granted on 5th November 2024 subject to conditions.

These conditions have the following environmental requirements:

- Prior to the commencement of development the following documents shall be submitted to and approved in writing by the Planning Authority:
 - o A Construction Environmental Management Plan (CEMP).
 - o A Soil Management Plan (SMP).
 - o A detailed scheme of landscaping for the application site.
- No development shall take place until the following documents have been submitted to and approved by the Planning Authority:
 - o A Habitat Management and Enhancement Plan (HMEP).
 - o A Species Mitigation and Management Plan.
- The approved development shall be carried out in strict accordance with the 'Arboricultural Planning Statement Branxton Substation' Revision C report by RSK ADAS Ltd dated February 2024 docketed to the planning permission, unless otherwise agreed in writing with the Planning Authority.

6. Project Cost Estimate

As agreed with Ofgem, this stage 2 submission provides the associated amendments to the outputs, delivery date and allowances to be detailed in LSpC 3.14 Appendix 1.

6.1 Estimated Total Project Cost

Aligned with the format of the Re-Opener Pipeline Log, Table 5 details expected energisation year and our current view of potential direct capital expenditure in RIIO-T2.

Table 5 - Estimated Incidence of Expenditure

Energisation Year	Potential direct capex value per year, £m, 18/19 price base												Total: direct capex
	Yr. 21/22	Yr. 22/23	Yr. 23/24	Yr. 24/25	Yr. 25/26	Yr. 26/27 (T3)	Yr. 27/28 (T3)	Yr. 28/29 (T3)	Yr. 29/30 (T3)	Yr. 30/31 (T3)	Yr. 31/32 (T4)	Yr. 32/33 (T4)	
28/29	0.078	0.020	5.708	8.398	36.825	17.231	11.689	3.475	1.133	0.029	0.014	0.004	84.605

Note that the capital expenditure noted above relates to 14 of the 22 bays required which form the shared infrastructure elements of Branxton substation (ref. SPT-RI-124). The capital expenditure for the remaining 8 bays forms part of the individual projects which require them (Eastern HVDC Link, Berwick Bank and the BESS connections).

As described in Section 4.3, it should be highlighted that where any contracted connecting parties fail to secure a Gate 2 connection offer following the Gate 2 to Whole Queue connections reform exercise, their securities and allocation of costs will also fall away. This could have an impact on the current capital expenditure requested by SPT above, albeit this will not affect the works as stated in this submission for the establishment of Branxton 400kV substation i.e. this will still require the installation of 14 400kV GIS bays to meet the project objectives. Therefore, following completion of the Gate 2 to Whole Queue exercise, SPT will review the contracted parties due to connect into Branxton substation and will endeavour to inform Ofgem (i) where there is a change to the contracted connecting parties seeking to connect, and (ii) where there is any revision to the requested MSIP investment figures to reflect this change in the contracted background, for further Ofgem review.

The Energisation Year noted above in Table 5 is in relation to when Branxton substation will be commissioned in line with the Eastern HVDC Link project.

6.2 Detailed Costs

Table 6 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 6 - Direct Costs, Procurement Strategy and Cost Firmness

Contract Name	Contract Start	Current Finish Date	Cost (£m)	Procurement Strategy	Cost Firmness

Contract Name	Contract Start	Current Finish Date	Cost (£m)	Procurement Strategy	Cost Firmness
Total			84.605		

6.3 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 contracts to be awarded are for GIS/GIB supply, installation and cold commissioning, platform enabling/haul road installation and removal, GIS building, substation civil Works, OHL modifications, cable works and electrical installation/commissioning Balance of Plant works.

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 6.2.

6.4 Cost Maturity

Aligned with the classification outlined within the “OFGEM Class of Estimate” tab included in the “ET2 UM Submission Template” the table below includes the assessment of cost firmness:

Status of individual contracts is detailed in Table 7 provided in Section 6.2.

Table 7 - Cost Firmness Assessment

Cost Firmness as per OFGEM classification	Total Direct Cost (£m)	Total Cost (%)
TOTAL	84.605	100%

As it can be seen in Table 7, [REDACTED] of the total costs are either incurred already or have been contracted, giving high confidence in our cost submission.

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 Sectors⁷ 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_t 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.

⁷ [RIIO-3 Sector Specific Methodology Decision for the Gas Distribution, Gas Transmission and Electricity Transmission Sectors | Ofgem](#)

6.5 Project Risk and Mitigation

Table 8 below provides a breakdown of the individual project risks followed by further detailed explanation regarding mitigation and likelihood. The provision for risk at [REDACTED] of the cost is proportionate and justified.

Table 8 - Risk Quantification

Risk	Description	Probability	Value (£m)
[REDACTED]			

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



6.6 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 9 - Requested Direct Allowances - Project

	Direct allowance requested per year, £m, 18/19 price base												
	Yr. 21/22	Yr. 22/23	Yr. 23/24	Yr. 24/25	Yr. 25/26	Yr. 26/27	Yr. 27/28	Yr. 28/29	Yr. 29/30	Yr. 30/31	Yr. 31/32	Yr. 32/33	Total: (£m)
Direct Allowances Requested	0.078	0.020	5.708	8.398	36.825	17.231	11.689	3.475	1.133	0.029	0.014	0.004	84.605

An aggregated view of the total cost is outlined in Table 10 below:

Table 10 - Total Price Control Project Cost Aggregated view

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.

SPT also requests that the following allowance is provided for Community Benefits associated to the project as described in Section 8, calculated according to the latest draft Government guidance:

Table 11 - Requested Direct Allowance – Community Benefits

OSR	Scheme Name	Allowance (£m)
SPT200168/ SPT200169	SPT-RI-124 Branxton 400kV Substation	0.6095

6.7 Regulatory Outputs

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

Table 12 - Price Control Deliverable

OSR	Scheme Name	Output	Allowance* (Oncosted)	Delivery Date
SPT200168/ SPT200169	SPT-RI-124 Branxton 400kV Substation	Installation of Branxton 400kV Substation, provision of connection to Eastern HVDC Link and completion of works including landscaping maintenance and temporary access roads/land re-instatement	94.677	28 th February 2032

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

Note that the Delivery Year noted above in Table 12 differs to the Energisation Year noted previously in Table 5 Section 6.1. The reason for the difference is due to the first year Branxton will be energised (2028/29) vs. when all works will be completed.

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 13 summarises the key project milestones within the delivery schedule.

Table 13 - Key Project Milestone

Milestone	Project Phase	Completion Date
1	Award GIS Supply and Installation Contract	July 2023 - Complete
2	Planning Consent Obtained	November 2024 - Complete
3	Commence Main Site works	Q1 2025 - Forecast date
4	Complete Substation Installation and Pre-commissioning	January 2028 - Forecast date
5	Complete Commissioning Works and provision of connection to Eastern HVDC link	October 2028 - Forecast Date
6	Completion of works including landscaping maintenance period and temporary access roads/land re-instatement	February 2032-Forecast Date

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

Branxton 400kV substation works will closely co-ordinate with the project installation and commissioning programmes for the associated connections i.e. Eastern HVDC Link, [REDACTED]

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 6.5 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).

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.

As part of this project, SPT has engaged with statutory consultees associated with the planning application for these works - the Local Authority, SEPA and NatureScot - and the third-party landowner Forestry Land Scotland. We have also engaged with the other stakeholders, including community councils and local residents.

Due to the location and nature of this project, no particular sensitivities or community impact issues have been identified, but a general level of interest from local representatives has been noted and we will continue to engage with them throughout the project.

Stakeholder engagement to date has informed the details of the construction and permanent drainage details for the works.

8. Community Benefits

SPT projects delivering new infrastructure will attract a sum of Community Benefits funding proportional to the new works carried out. As there has been a general level of interest from the community regarding this project there will be an expectation that Community Benefits will be available once Government guidance has been published.

Community benefits, in the context of network infrastructure, refer to an additional mechanism, **separate from the planning process**, aimed at enabling communities to directly benefit from hosting electricity infrastructure. They aim to enhance the local economy, society, and environment, and can also drive growth in the local area by investing in local priorities such as infrastructure, supply chains, and skills.

SP Energy Networks has a great deal of experience and are recognised as industry leaders in delivering Community Benefits, having already dispersed almost £25m of funding to our communities through our Transmission Net Zero Fund and Green Economy Fund. We have created draft Community Benefit Principles for new infrastructure host communities.

SPT will:

- Work in partnership with communities to understand their needs, ambitions and plans for social, economic and environmental sustainability
- Provide tailored support for communities to get the right skills, knowledge, capability and structures in place
- Put in place clear independent assessment of funding allocation with fair and straightforward governance
- Deliver lasting outcomes for communities, aligned to their ambitions
- Evaluate the benefits that funding has delivered to communities, develop case studies, and share learnings publicly

Community Benefit investment

Government guidance has not been released but the latest draft guidance indicates the following:



Draft guidance is restricted to new infrastructure, discussions with DESNZ and the other TOs propose the inclusion of:

- Sections of existing transmission routes that require voltage uprating and are screened as requiring an Environmental Impact Assessment; and
- Substation extension projects that increase the footprint of an existing substation beyond the original boundary by at least one hectare

SPT will appoint an independent administrator to support communities and provide fair and transparent assessment of funding allocation. In line with latest draft guidance, we propose [REDACTED] be added to the Community Benefits cost for individual MSIPs.

As detailed in section 5, project works involve construction of a new 400kV GIS Substation, therefore attracting the following community benefits:

Table 14: Community Benefits

Works	Km	Cost
[REDACTED]		
TOTAL		£609,500

9. Conclusion and Recommendations

This MSIP Re-opener application demonstrates the need to establish Branxton 400kV Substation, with works commencing in the RIIO-T2 period (April 2021 – March 2026) and completing in the RIIO-T3 period. The establishing of the new Branxton 400kV substation will enable the following:


- Enable the timely and co-ordinated connection of the 2,000MW Eastern HVDC Link to the northeast of England
- Prepare the network for the connection of a significant amount of offshore wind generation from the North Sea at Branxton, including the 2,300MW contracted Berwick Bank Offshore Wind Farm development.
- Prepare the network for the closure of Torness Power Station, currently expected in March 2030, and the subsequent rationalisation/ decommissioning of the Torness 400kV GIS; and
- Eliminate thermal bottlenecks due to the existing capability of the original 400kV cable systems at Torness, which can impact both Scottish import and export capability.

The main conclusions of this submission are:

- The timely connection of low carbon generation, including 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 make significant investment in the capability of the existing transmission system from Scotland to the north of England to accommodate growth in renewable generation. This is required to maintain and operate an economic and efficient transmission system. It is critical to allow the network to keep pace with projected growth to support legislated Net Zero targets whilst also enabling significant constraint savings.
- The connection points at Branxton 400kV Substation will require to be available prior to the commissioning of Eastern HVDC Link as well as the other connections to be made at Branxton.
- An MSIP Re-opener application is required in respect of these works.
- 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 Sectors⁸ 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.


⁸ [RIIO-3 Sector Specific Methodology Decision for the Gas Distribution, Gas Transmission and Electricity Transmission Sectors | Ofgem](#)

Appendix A - SP Transmission System, Geographic Overview

