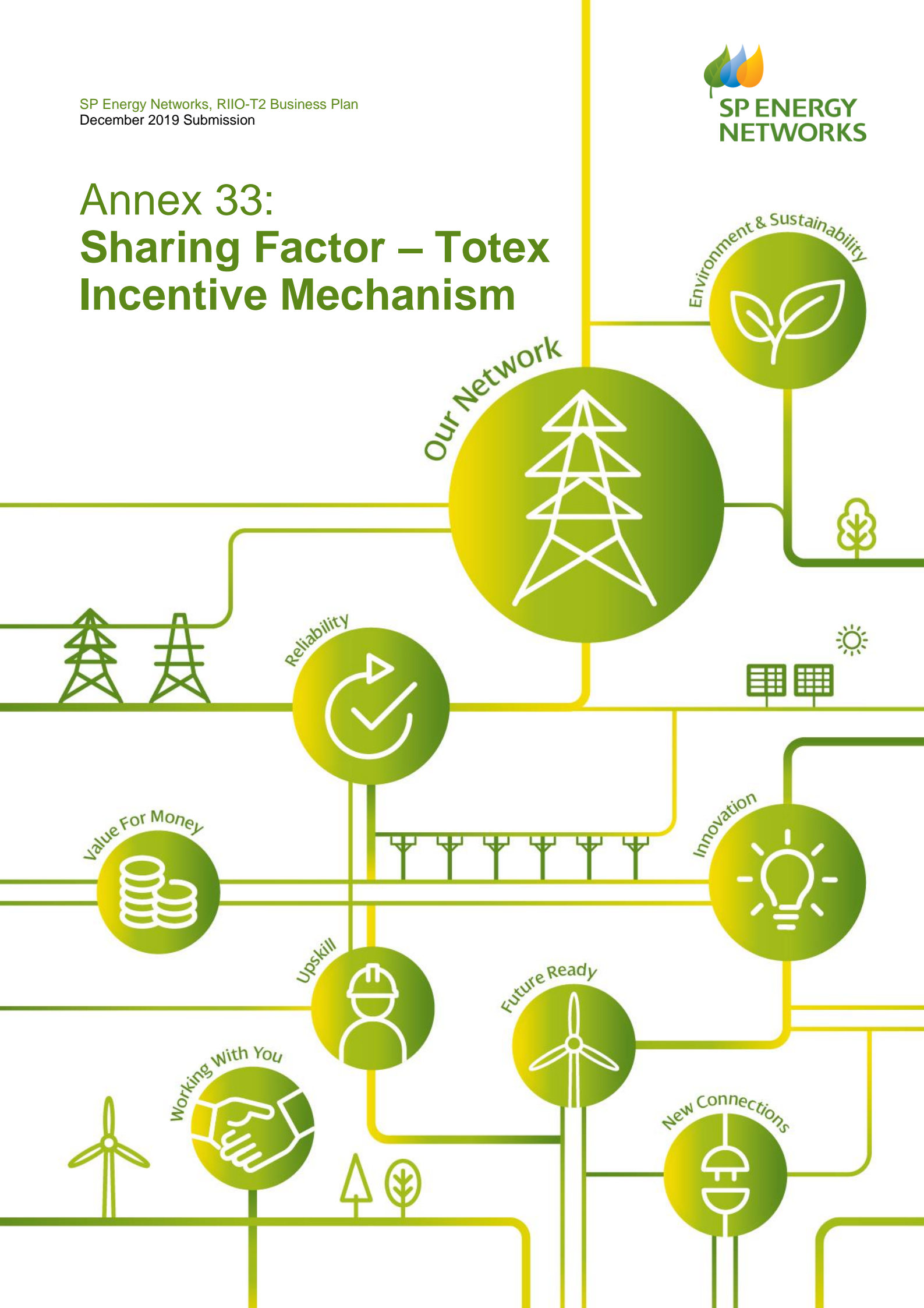


Annex 33: Sharing Factor – Totex Incentive Mechanism



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REVISION	Date	Comment
1	09/12/19	Submission with final business plan

1.0 INTRODUCTION

Ofgem have proposed to introduce a Totex Incentive Mechanism (TIM) in the RIIO-T2 period using a new 'blended sharing factor' method to calculate the incentive rate. Within the May Sector Specific Decision document, Ofgem have stated:

"The totex incentive mechanism will apply a confidence-dependent incentive rate. This will be based on a metric of confidence, calculated as the ratio of high-confidence baseline costs to totex, where our independent baseline for high-confidence baseline costs is the numerator and the company's overall totex allowance is the denominator. High-confidence baseline costs are those costs where Ofgem has a high level of confidence in its ability to independently set a cost allowance.

Our baseline for setting cost allowances should be constructed from information that is substantially independent of company forecasts. Where either we already have this information, or companies can provide such independent baseline information, they will receive a higher incentive rate."

"Our working assumption at this time is that we will assign high-confidence baseline costs with a 50% incentive rate and other costs with a 15% incentive rate.

A single, incentive rate will be calculated based on the balance of high-confidence and lower-confidence baseline costs included in final totex allowances."

We believe that there is a lack of detail on how companies should formulate their TIM, including how granular the breakdown of costs should be. Therefore, we have used this annex to propose how we believe the TIM should be calculated in RIIO-T2 for SP Transmission. From this, we have concluded that our **incentive rate should be set at 47%** and therefore, our **sharing factor should be set at 53%**.

2.0 BACKGROUND

The TIM is a RIIO-1 initiative that was introduced to incentivise efficiency and innovation in our business and ensure that the benefits of these efficiencies were shared with consumers. In RIIO-T1, Ofgem set an incentive rate determining the proportion of underspend on allowed totex that could be retained by the business and the proportion of overspend that was borne by the business. The remaining share of the underspend was then passed on the consumer as savings, or, in the case of overspend, a proportion of the additional expenditure. This was designed to share the benefits of our innovation and efficiency with consumers, but also to offer some protection from cost uncertainty.

Companies were given a higher incentive rate based on how close their costs were aligned to Ofgem's view of efficient costs using the Information Quality Incentive (IQI). For SPT, the incentive rate was set at 50%. The sharing factor (1-incentive rate) is applied to the under or overspend on our totex allowance, and our actual totex is recalculated based on this. It is a symmetrical mechanism, meaning that the consumer will bear the same amount of overspend as it keeps underspend, in RIIO-T1, this is 50% both ways for SPT.

The TIM in RIIO-T1 has been successful in driving efficiencies and innovation within SPT, benefiting both the consumer and providing a reward to companies as a result of our further efficiencies in programme delivery. This is reflected in Table 1 below, which shows a £70.9m post-TIM saving from our RIIO-T1 baseline allowance for 2013-2018.

Table 1:

RIIO-T1 TIM Totex Performance (£m, 09/10 prices)	31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	Total
Actual totex	205.4	235.2	295.7	281.4	187.4	142.9	-
Less allowed totex	(312.3)	(391.5)	(294.6)	(147.4)	(193.8)	(210.8)	-
Pre-TIM overspend (underspend)	(107.0)	(156.3)	1.2	134.0	(6.4)	(67.8)	-
Funding Adjustment Rate (or 'sharing factor')	50%	50%	50%	50%	50%	50%	-
Post-TIM overspend (underspend)	(53.5)	(78.1)	0.6	67.0	(3.2)	(33.9)	(101.1)

Source: Ofgem ET1 PCFM November 2019

3.0 RIIO-T2 TOTEX INCENTIVE MECHANISM

In RIIO-T2, Ofgem have proposed to retain the TIM, but have proposed a different methodology for calculating the incentive rate, using a method called the ‘blended sharing factor’. Ofgem’s position within the Sector Specific Decision on the TIM is that they “will apply a confidence-dependent incentive rate. This will be based on a metric of confidence, calculated as the ratio of high-confidence baseline costs to totex, where our independent baseline for high-confidence baseline costs is the numerator and the company’s overall totex allowance is the denominator. High-confidence baseline costs are those costs where Ofgem has a high level of confidence in its ability to independently set a cost allowance.”

To calculate a single incentive rate using the ‘blended sharing factor’ approach, Ofgem have stated: “Our working assumption at this time is that we will assign high-confidence baseline costs with a 50% incentive rate and other costs with a 15% incentive rate. A single, incentive rate will be calculated based on the balance of high-confidence and lower-confidence baseline costs included in final totex allowances.”

For illustration purposes, we have outlined our understanding of the RIIO-T2 TIM in the following example to add clarity to the above:

Efficiency Incentive:

% Costs high confidence (at 50%):	75%
% Costs low confidence (at 15%):	25%
Incentive rate ($0.75 \times 0.5 + 0.25 \times 0.15$):	41%
Sharing factor (1-incentive rate):	59%

Scenario 1 (underspend on allowance):

Allowed totex:	100
Actual totex:	75
Overspend/ (underspend):	(25)
Underspend retained by customers (0.59×25)	(14.75)
Underspend retained by SPT (0.41×25)	(10.25)

Scenario 2 (overspend on allowance):

Allowed totex:	100
Actual totex:	125
Overspend/ (underspend):	25
Overspend incurred by customers (0.59×25)	14.75
Overspend incurred by SPT (0.41×25)	10.25

4.0 COST CATEGORISATION

Using Ofgem’s guidance in the Sector Specific Decision Document, we have split our costs into two categories: ‘high confidence baseline costs’ and ‘lower confidence baseline costs’ using the types of evidence that Ofgem have detailed in their decision document. For ‘higher confidence baseline costs’ Ofgem stated that types of appropriate evidence include:

- Realised actual costs in RIIO-1
- Evidence that cost forecasts have been arrived at through a competitive process
- Independent benchmarking assessments
- Costs where it is possible to determine a unit cost allowance with a high degree of confidence and where an appropriate volume driver or other uncertainty mechanism will be implemented and applied to a volume drawn from a baseline scenario volume.

We class ‘lower confidence baseline costs’ as having less comparable data than other projects or unique costs. An example of this is the establishment of a new substation at Branxton which have costs associated with land purchase and planning uncertainties or other areas where this is the first deployment of its kind such as our system health map which is based on a high-level estimate of the associated IT costs. Throughout our business plan we have sought to provide as much cost certainty as possible to support our proposals, so even where a project may carry some risks and uncertainties, these costs have been verified by other sources such as historical cost information or engagement with manufacturers.

For all our Engineering Load and Non-load expenditure programme, we commissioned Arcadis to undertake a benchmarking exercise. As part of this work, Arcadis evaluated 50% of the plan’s capex by value to check its cost efficiency and the assumptions. Feedback from Arcadis highlighted that costs for core activities in our plan are efficient relative to benchmarks in most areas but they identified a small number of areas that we needed to review. We undertook a review of the schemes and extrapolated the findings to all relevant projects in our plan, resulting in cost reductions of £11m, 1% reduction in our planned load and non-load capital expenditure.

We have assessed our costs based on a ‘cost confidence’ basis rather than a ‘needs certainty’ basis. For example, there may be costs in our business plan which are high certainty, however, it is not certain whether these costs will actually be incurred. The application of price control deliverables and uncertainty mechanisms will cater for such ‘needs certainty’ cases separately.

Table 2 shows how we have decided to split our costs into ‘high confidence’ or ‘low confidence’. The table gives an explanation why we have categorised each cost in that way. Most of our low confidence costs reflect innovative, new ways of doing things and so a benchmark cannot be provided. From these categorisations, we have calculated that our **weighted average incentive rate should be set at 47%**, and therefore our **blended sharing factor should be set at 53%**.

Table 2:

RIIO-T2 – Totex Cost Certainty Categorisation	Value (£m)	Level of confidence (Low – 15%, High – 50%)	Justification	Evidence
Load Related - Generation Connections	109.3	50%	Only high confidence connection projects are included in our baseline plan. These are fully justified using established engineering solutions with good cost certainty.	Various EJPs, Arcadis Benchmarking report (Inc in Annex 23)
Load Related - Demand Connections	116.2	50%	Only high confidence connection projects are included in our baseline project. Costs are based on robust engineering justification and use established cost data to provide high confidence.	Various EJPs, Arcadis Benchmarking report (Inc in Annex 23)
Load Related - Wider Works	314.6	39%	See Table 3 for detailed breakdown on individual projects.	Table 3

Non-Load Related - Circuit Breaker	124.2	50%	Scope of works well defined and derived from historical costs with comparability to RIIO-T1. Strong track record of delivery in RIIO-T1.	Various EJPs, Arcadis Benchmarking report (Inc in Annex 23)
Non-Load Related - Overhead Lines & Cables	251.7	50%	Scope of works well defined and derived from historical costs with comparability to RIIO-T1. Strong track record of delivery in RIIO-T1. For cables, costs based on quotations from OEMs.	Various EJPs, Arcadis Benchmarking report (Inc in Annex 23)
Non-Load Related - Transformer & Reactor	40.0	50%	Scope of works well defined and derived from realised actual costs in RIIO-T1. Strong track record of delivery in RIIO-T1.	Various EJPs, Arcadis Benchmarking report (Inc in Annex 23)
Non-Lead	126.5	44%	See Table 4 for detailed breakdown of projects.	Table 4
Net Zero Fund	21.1	Excluded	We do not consider it appropriate that any underspend associated with NZF is subject to a sharing factor. We propose that a mechanism is included in the licence that allows SPT to give back any underspend to customers. Due to the success of Green Economy Fund, we believe that this value will be fully prescribed.	N/A
Resilience (excl. cyber security)	28.65	50%	Costs and scopes are well defined and have historical comparators. Cyber security considered separately.	
Cyber Security	12.17	15%	We believe our cyber security costs are uncertain because they cannot be compared with realised actual costs from previous price controls.	
Non-Operational Capex	14.9	50%	The IT costs are the majority of the Non-Operational Capex. The IT costs have undergone an independent assurance and benchmarking assessment against relevant companies providing similar services by Gartner. Relevant excerpts of the report can be found in Appendix A.	Annex 23- Our Assurance Framework. Appendix J: Gartner-RIIO Support and Investment Assurance Final Report
Operating Costs	76.0	50%	Scope of activities is well defined and RIIO-T1 historical costs are comparable.	
Engineering and Corporate Support	139.5	50%	We believe our indirect costs are well defined, with wide availability of historical comparators. Due to their nature both CAI and BS costs should not fluctuate widely due to the correlation to the level of investment activity undertaken (CAI's) and reflection of the size and scale of the organisation (BS).	See Annex 36 Engineering & Corporate Support
Weighted Average Incentive Rate		46.7%		
Blended Sharing Factor (1 - incentive Rate)		53.3%		

When categorising Load Related Wider Works and Non Lead categories, we found a degree of variation within the categories between high and low confidence. Giving these categories an overall 'high confidence' or 'low confidence' weighting would skew our overall incentive rate. Therefore, Table 3 and 4 below breaks down the category to a more granular level and shows the cost certainty of each subcategory.

We have calculated that the weighted average incentive rates for Load Related- Wider Works and Non Lead are 39% and 44% respectively. This is included in Table 2 above.

Table 3:

Load related - Wider works cost certainty	Value (£m)	Level of certainty (Low – 15%, High – 50%)	Justification	Evidence
Hunterston East - Neilston 400kV reinforcement (HNNO)	22.58	50%	This project commenced in RIIO-T1 therefore costs are well developed with contracts already in place	RRP - carry over project
East Coast Onshore 275kV Upgrade (ECU2)	11.86	50%	Re-profiling of existing overhead line, costs are based on other established OHL refurbishment costs and based on T1 experience. Replacement of cable sections are based on costs with a high cost confidence.	EJP_SPT_SPT200108_ECU2
East Coast Onshore 400kV incremental reinforcement (ECUP)	35.13	50%	Installation of new supergrid transformers at existing site and upgrading of existing line to 400kV operation. These costs are based on previous comparable activities.	EJP_SPT_SPT200110_ECUP
Denny to Wishaw 400kV reinforcement (DWNO)	19.16	15%	Construction of 17km of new overhead line and modification to several existing lines. Cost estimates from previous projects used to inform this but several sensitivities due to amount of construction works.	EJP_SPT_SPT200106_DWNO Arcadis Benchmarking report (Annex 23)
Eccles Voltage support and real time rating system (ECVC)	94.66	50%	Cost estimates have been provided by five suppliers to get a range of indicative costs to increase cost confidence. This is at an existing site thus providing higher cost confidence.	EJP_SPT_SPT200120_ECVC Arcadis Benchmarking report (Annex 23)
Windyhill-Lambhill-Longannet 275kV circuit turn-in to Denny North 275kV substation (WLTI)	3.95	50%	Completion of a T1 project. Detailed engineering design and existing contracts have been used to inform cost assumptions.	EJP_SPT_SPT200118_WLTI
Branxton 400kV substation	30.28	15%	Costs are based on consistent cost assumption but some uncertainty due to the need for the purchase of new land and any impact if the location is different from the preferred site	EJP_SPT_SPT200168
Voltage management	28.39	50%	Application of established technology, costs are based on previous work.	EJP_SPT_SPT200124 EJP_SPT_SPT200122 EJP_SPT_SPT200134
Harmonic filters	24.00	15%	We have not previously deployed filters on the network and a cost estimate is based on other similar technology (MSCDN)	EJP_SPT_SPT200126 Harmonic Filters
Circuit rating management system	4.53	50%	Costs based on numerous innovation projects and market engagement.	EJP_SPT_SPT200130 Circuit Rating Management System

Blackstart	11.11	50%	Based on established costs (for unbanking transformers and installation of point of wave switching)	EJP_SPT_SPT200128 Black Start
GEMS	7.88	50%	Cost forecast is informed by third party who have reviewed the market and provided detailed proposal on requirements	EJP_SPT_SPT200132 GEMS
Pre-engineering	21.09	15%	Estimate of future pre-engineering requirements	EJP_SPT_SPT200136 Pre-Engineering
Weighted Average Incentive Rate for Load related wider works		39.5%		

Table 4:

Non-load non lead cost certainty	Value (£m)	Level of certainty (Low – 15%, High – 50%)	Justification	Evidence
SPD Driven 33kV Board Replacement (CB Portion)	8.01	50%	Large volume of historical cost evidence. Routine activity.	EJP_SPNLT2046
Protection Modernisation	11.20	50%	Large volume of historical cost evidence. Routine activity.	EJP_SPNLT2048
EMS Replacement	6.25	15%	Complex OT project. Historical benchmarks and cost evidence are less relevant due to the pace of change of technology.	EJP_SPNLT2049
RIIO-T2 System Monitoring Modernisation	3.47	50%	Routine works with historical cost evidence.	EJP_SPNLT2051
132kV Optical Transport Network	13.02	50%	Well defined works with costs informed by service provider appointed via competitive tender.	EJP_SPNLT2052
RTU/ HMI Replacement	2.27	50%	Routine works with historical cost evidence.	EJP_SPNLT2053
System Health Map	0.43	15%	Innovative solution with no historical comparators.	EJP_SPNLT2054
400 / 275kV Telecomms Resilience	19.40	50%	Well defined works with costs informed by service provider appointed via competitive tender	EJP_SPNLT2055
Fibre replacement and repair	0.75	50%	Well defined works with costs informed by service provider appointed via competitive tender	EJP_SPNLT2056
SP-T RIIO T2 Active Equipment Investment Strategy	7.30	50%	Well defined works with costs informed by service provider appointed via competitive tender	EJP_SPNLT2057
Digital Substations Cyber Security	1.74	15%	Innovative solution with few historical comparators.	EJP_SPNLT2058
Digital Substations Offline	0.38	50%	Costs obtained from solution providers	EJP_SPNLT2059

Test Facility			for standard equipment.	
PD Installation for GIS and GIB	2.76	15%	Relatively novel solution with few historical comparators.	EJP_SPNLT2060
EMS-WAMS integration	0.75	50%	Costs obtained from solution providers	EJP_SPNLT2061
Online Transformer DGA Installation at Strathaven SGT1 and Cockenzie SGT1	0.12	50%	Routine works with historical cost evidence.	EJP_SPNLT2062
Cockenzie 275kV (CT replacement)	0.92	50%	Routine works with historical cost evidence.	EJP_SPNLT2097
Easterhouse 275kV (Line entry disconnecter replacement)	0.20	50%	Routine works with historical cost evidence.	EJP_SPNLT2098
Concrete/Steel Structures	6.20	50%	Routine works with historical cost evidence.	EJP_SPNLT20100
Building Refurbishment Programme	5.25	50%	Routine works with historical cost evidence.	EJP_SPNLT20101
Environmental - Refurbishment of Oil Bunding and Drainage Systems	9.36	50%	Routine works with historical cost evidence.	EJP_SPNLT20102
Civil works programmes – Cockenzie building improvement works	3.47	50%	Works scoped, tendered and in progress. Project crosses T1/T2 boundary. This is the T2 cost portion	EJP_SPNLT20103
Partick Grid Site Rationalisation	2.73	15%	Complex legacy site at a relatively early stage of development	EJP_SPNLT20104
SPD Driven 33kV Board Replacement (Cable Portion)	3.95	50%	Large volume of historical cost evidence. Routine activity.	EJP_SPNLT20115
RIIO-T2 PCB CVT Replacement Programme	1.67	50%	Routine works with historical cost evidence.	EJP_SPNLT20141
Environmental Action Plan - Building Energy Reduction Measures	2.29	15%	Relatively novel solution with few historical comparators.	EJP_SPNLT20142
Faults Capex	5.33	15%	Relatively uncertain activity types and activity levels	
Glenniston 132kV switchgear replacement	2.82	50%	Routine works with historical cost evidence.	EJP_SPNLT2040
Weighted Average Incentive Rate for non-load non-lead 43.8%				