ofgem
Making a positive difference
for energy consumers

Consultation

RIIO-2 Draft Determinations – Scottish Power Transmission

Publication date	09 July 2020	**Contact:**	RIIO Team
		Team:	Network Price Controls
Response deadline	4 September 2020	**Tel:**	020 7901 7000
		Email:	RIIO2@ofgem.gov.uk

Our aim for the RIIO-2 price controls is to ensure energy consumers across GB get better value, better quality of service and environmentally sustainable outcomes from their networks.

In May 2019, we set out the framework for the price controls in our Sector Specific Methodology Decisions. In December 2019, Transmission and Gas Distribution network companies and the Electricity System Operator submitted their Business Plans to Ofgem setting out proposed expenditure for RIIO-2. We have now assessed these plans. This document, and others published alongside it, set out our Draft Determinations for company allowances under the RIIO-2 price controls, for consultation. We are seeking responses to the questions posed in these documents by 4 September 2020. Following consideration of responses we will make our Final Determinations at the end of the year.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at Ofgem.gov.uk/consultations. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

Any enquiries related to the text of this publication should be sent to Ofgem at:

10 South Colonnade, Canary Wharf, London, E14 4PU. Alternatively, please call Ofgem on 0207 901 7000.

This publication is available at www.ofgem.gov.uk. Any enquiries regarding the use and re-use of this information resource should be sent to: psi@nationalarchives.gsi.gov.uk

Contents

1. Introduction and overall package

Purpose of this document

1.1 This document sets out our Draft Determinations and consultation positions for the electricity transmission (ET) price control (RIIO-ET2) for the areas that are specific to SPT. This price control will cover the five-year period from 1 April 2021 to 31 March 2026. All figures are in 2018/19 prices except where otherwise stated.

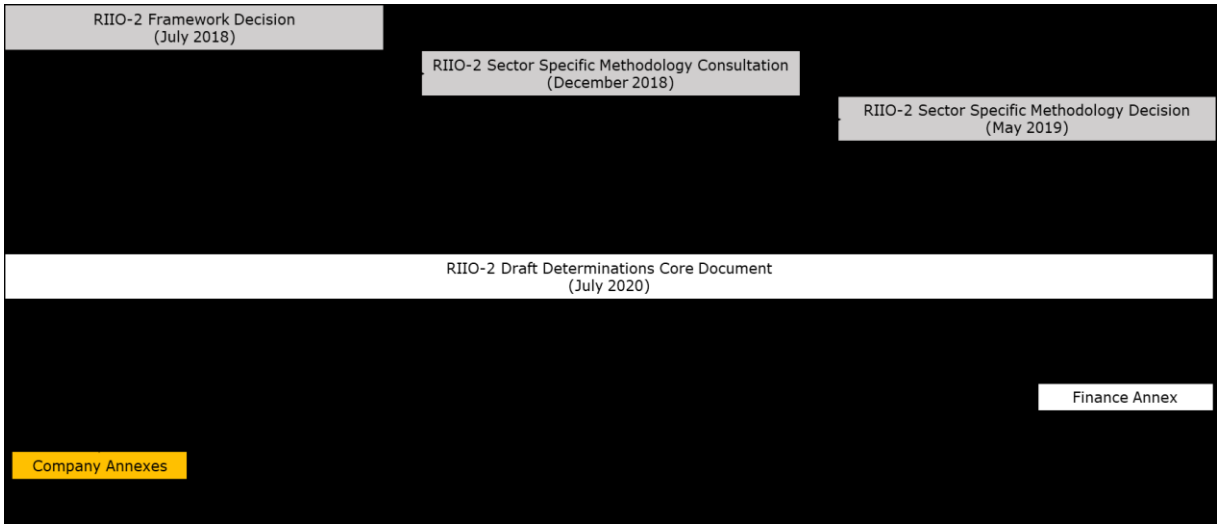
1.2 Setting allowed revenue is underpinned by a large set of proposals across output design, cost assessment, and finance. The purpose of this document is to focus on SPT and:

- Support stakeholders in navigating the individual proposals across the suite of RIIO-2 Draft Determinations documents that make up its overall allowed revenue; and
- Set out any proposals that are specific to SPT, including:
  - baseline cost allowances
  - parameters for common outputs
  - bespoke Output Delivery Incentives (ODIs)[1]
  - bespoke Price Control Deliverables (PCDs)
  - bespoke Licence Obligations (LOs)
  - Consumer Value Propositions (CVPs)
  - Uncertainty Mechanisms (UMs)
  - the level of Network Innovation Allowance (NIA)
  - reward or penalty under the Business Plan Incentive (BPI).

1.3 This document is intended to be read alongside the RIIO-2 Draft Determinations Core Document (Core Document) and RIIO-2 Draft Determinations - Electricity Transmission Sector Annex (ET Annex). Figure 1 below sets out where you can find information about other areas of our Draft Determinations.

[1] ODIs can be reputational (ODI-R) or financial (ODI-F).

Figure 1: RIIO-2 Draft Determinations documents map



What makes up SPT's Draft Determinations (the RIIO-2 building blocks)?

1.4 We have structured our price control consultation positions around a series of building blocks.The building blocks reflect how we set companies' allowed revenue. The table below provides stakeholders' with a map to where to find the proposals that make up the Draft Determinations.

Table 1: RIIO-2 Building Blocks

Building Block		Where to find the Draft Determinations	
		Approach/Methodology	Company-specific parameters
Base Revenue (BR)	RAV Carried Over from RIIO-1	Chapter 11 of Finance Annex	Chapter 2 of ET Annex
	Common ODIs, PCDs & LOs	Chapter 4 of Core Document	Chapter 2 of ET Annex
	Bespoke ODIs, PCDs & Los	Chapter 4 of Core Document	Chapter 2
	Baseline Totex Allowance	Chapter 5 of Core Document	Chapter 3 of ET Annex
	Capitalisation Rate (Fast/Slow Money)	Chapter 11 of Finance Annex	
	WACC Allowance	Chapter 6 of Core Document Chapter 4 of Finance Annex	
	Depreciation Allowance	Chapter 10 of Finance Annex	
	Tax Allowance	Chapter 7 of Finance Annex	
	Innovation	Chapter 8 of Core Document	Chapter 5
	Cyber and Physical security	Chapter 7 of Core Document	Chapter 3
Adjustments to BR for company performance	Totex Incentive Mechanism (TIM)	Chapter 10 of Core Document	Chapter 1
	Network Asset Risk Metric (NARM)	Chapter 4 of Core Document Appendix 3 of NARM Annex	Chapter 2 of ET Annex
	BPI Reward/Penalty	Chapter 10 of Core Document	Chapter 1
	Return Adjustment Mechanism (RAM)	Chapter 8 of Finance Annex	
Rules to adjust BR forother factors	Uncertainty Mechanisms (including Pass-through)	Chapter 7 of Core Document Chapter 4 of ET Annex	Chapter 3
	Policy Indexation (RPEs, ongoing efficiency)	Chapter 5 of Core Document	
	Other Indexation (RAV, CoE, CoD)	Chapter 9 of Finance Annex	
	Whole System Mechanisms	Chapter 7 and 8 of Core Document	
	Pensions	Chapter 11 of Finance Annex	
	Directly Remunerated Services (DRS)	Chapter 11 of Finance Annex	

An overview of SPT's RIIO-2 price control

1.5 A summary of our proposed position for SPT's baseline totex is presented in Table 2. This reflects our view of efficient costs that we propose will form SPT's baseline

totex allowance for RIIO-ET2 price control period. We have set baseline totex allowances for SPT only where we are satisfied of the need for and certainty of the proposed work, and where there is sufficient certainty of the efficient cost of the work. For further details of any values, please refer to Chapter 3 of this document.

Table 2: SPT's baseline funding request and Ofgem's proposals

Cost area	SPT proposed allowance (£m)	Ofgem proposed allowance (£m)
Load Related Capex	486.3	371.9
Non-Load Related Capex	452.2	320.3
Non Operational Capex	14.9	4.5
Network Operating Costs	110.1	85.6
Indirect Opex	273.2	209.6
Other costs	51.8	37.8
Efficiency challenge		(60.1)
Total	**1388.5**	**969.6**

1.6 The common outputs that we are proposing for all companies in RIIO-ET2 are set out in Table 3, with further details in the ET Annex. Table 3 also sets out the bespoke outputs that we are proposing for SPT (further details are in Chapter 2 of this document).

Table 3: Proposed common and bespoke outputs applicable to SPT

Output name	Output type	Further detail
Common outputs across ET Sector		
Meeting the needs of consumers and network users		
Energy Not Supplied (ENS)	ODI-F	ET Annex Chapter 2
Quality of connections survey	ODI-F	ET Annex Chapter 2
Timely connections	ODI-F	ET Annex Chapter 2
Stakeholder Survey for New Transmission Infrastructure Projects	ODI-R	ET Annex Chapter 2
Maintaining a safe and resilient network		
Large Project Delivery (LPD)	ODI-F	ET Annex Chapter 2
Network Asset Risk Metric (NARM)	PCD	NARM Annex
Network Access Policy (NAP)	LO	ET Annex Chapter 2
Cyber resilience	Use-it-or-lose-it, PCD	Core Document Chapter 7
Delivering an environmentally sustainable network		

Output name	Output type	Further detail
Environmental Action Plan (EAP) and annual environmental report	ODI-R, LO	ET Annex Chapter 2
Insulation and Interruption Gas (IIG) leakage	ODI-F	ET Annex Chapter 2
Visual amenity in designated areas provision	PCD	ET Annex Chapter 2
Bespoke outputs to SPT		
Maximising environmental benefit from non-operational land	ODI-R, CVP	Chapter 2
Net Zero Fund	Use-it-or-lose-it	Chapter 2
Non Load - Cable Sealing Ends	PCD	Chapter 3
Non Load - Currie – Gorgie Cable Replacement	PCD	Chapter 3
Non Load - Longannet Series Reactor Refurbishment	PCD	Chapter 3
Non Load - Longannet 275kV Switchgear Replacement	PCD	Chapter 3
Non Load - Westfield 275kV Switchgear Replacement	PCD	Chapter 3
Non Load - XH & XJ Overhead Line Major Refurbishment	PCD	Chapter 3
Wider Works – Generation Export Management System	PCD	Chapter 3
Wider Works – Harmonic Filters	PCD	Chapter 3
Wider Works – NOA (Excluding DWNO)	PCD	Chapter 3
Wider Works – Voltage Management	PCD	Chapter 3
Wider Works – Black Start	PCD	Chapter 3
Demand Connections – Kendoon to Tongland Reinforcement	PCD	Chapter 3
Demand Connections – Network Rail	PCD	Chapter 3
Demand Connections – SP Distribution	PCD	Chapter 3
Generation Connections – Sole Use 900MW	PCD	Chapter 3

1.7 The cross-sector and ET UMs that we are proposing for all companies in RIIO-ET2 are set out in Table 4. Table 4 also sets out the bespoke UM that we propose for SPT (further detail is in Chapter 4 of this document).

Table 4: Proposed common and bespoke UMs applicable to SPT

UM Name	UM type	Further detail
Cross-Sector Ums		
Ofgem licence fee	Pass-through	Core Document
Business rates	Pass-through	Core Document
Inflation indexation of RAV and allowed return	Indexation	Core Document
Cost of debt indexation	Indexation	Core Document
Cost of equity indexation	Indexation	Core Document
Real Price Effects	Indexation	Core Document
Tax liability allowance	Re-opener	Core Document
Pensions (pension scheme established deficits)	Re-opener	Core Document

UM Name	UM type	Further detail
Physical security	Re-opener	Core Document
Cyber resilience IT	Re-opener	Core Document
Cyber resilience OT	Re-opener	Core Document
Information Technology and Telecoms (IT&T)	Re-opener	Core Document
Net Zero	Re-opener	Core Document
Coordinated Adjustment Mechanism	Re-opener	Core Document
Common UMs across ET Sector		
Opex escalator	Indexation	ET Annex
Generation and Demand connections	Volume Driver	ET Annex
Shunt Reactors	Volume Driver	ET Annex
Large Onshore Transmission Projects (LOTI)	Re-opener	ET Annex
Pre-construction Funding (PCF)	Re-opener	ET Annex
Medium Sized Investment Projects (MSIP)	Re-opener	ET Annex
Visual amenity in designated areas provision	Re-opener	ET Annex
UM bespoke to SPT		
Uncertain non-load projects	Re-opener	Chapter 4

1.8 Table 5 sets out our NIA proposals for SPT (further details can be found in Chapter 5 of this document). Our general approach to the NIA is set out in the Core Document.

Table 5: Summary of NIA applicable to SPT

Consultation position
£10m, conditional on an improved industry-led reporting framework.

1.9 Table 6 below summarises our assessment of SPT against the BPI, and sets out where you can find additional detail.

Table 6: Summary of proposed SPT BPI performance

BPI Stage	Proposed outcome	Further detail
1	Pass – No Minimum Requirement fail ratings	Core Document for approach to assessment and rationale
2	Reward of £1.6m for one CVP	Core Document for approach to assessment Chapter 2 of this document for views on specific proposals
3	Penalty of £16.6m	Core Document for approach to assessment

BPI Stage	Proposed outcome	Further detail
		Chapter 3 of this document for specific views on SPT performance
4	Reward of £0m	Core Document for approach to assessment Chapter 3 of this document for specific views on SPT performance
Cap calculation	Total penalty before cap: £15m Proposed SPT totex: £969.6m Maximum possible BPI penalty (2% of totex): £19.39m SPT penalty unchanged at £15m	Core Document sets out detail on application of 2% cap
Overall	Penalty of £15m	Core Document

1.10 Table 7 below summarises our proposed Totex Incentive Mechanism (TIM) rate for SPT. Further details about TIM can be found in the Core Document.

Table 7: Proposed TIM rate for SPT

SPT TIM rate
39.1%

1.11 Table 8 below summarises the financing arrangements that we are proposing to apply to SPT and the ET sector as a whole. Please refer to the RIIO-2 Draft Determinations - Regulatory Finance Annex (Finance Annex) for more detail on these areas.

Table 8: Summary of financing arrangements applicable to SPT

Finance parameter	SPT rate	Source
Notional gearing	55%	See Table 31 in Finance Annex
Cost of Equity	3.93%	
Expected outperformance	0.22%	
Allowed return on equity	3.70%	
Allowed return on debt	1.74%	
Allowed return on capital	2.63%	

2. Setting Outputs

Introduction

2.1 In this chapter we set out our proposals on two main areas:

- Firstly, on the SPT specific parameters for the outputs, detailed in our ET Annex, which we propose to apply to the ET sector as a whole.
- Secondly, on the bespoke outputs that SPT proposed in its Business Plan and any bespoke outputs that we propose to apply to SPT.

Common outputs

2.2 The SPT-specific parameters for the common outputs, which we are proposing for all companies in RIIO-ET2, are set out in Table 9. Further details on these outputs are set out in the ET Annex.

Table 9: SPT parameters for common outputs

Output name	Output type	Parameters
Meeting the needs of consumers and network users		
Energy Not Supplied (ENS)	ODI-F	Baseline target - 86 MWh Incentive rate - £16,000/MWh (same for all TOs) Financial collar - 3% of baseline revenue (same for all TOs)
Quality of connections survey	ODI-F	We will consult on this in the first year of RIIO-ET2
Timely connections	ODI-F	Baseline target - 100% compliance Incentive rate - -0.5% of base revenue (maximum penalty cap)
New Transmission Infrastructure Projects	ODI-R	N/A - identical reporting requirements across all TOs, see ET Annex
Maintaining a safe and resilient network		
Large Project Delivery (LPD)	ODI-F	We're proposing to finalise specific LPD parameters on a project-by-project basis
Network Asset Risk Metric (NARM)	PCD	Please refer to NARM Annex
Network Access Policy (NAP)	LO	N/A - Identical requirement for all TOs, see ET Annex
Delivering an environmentally sustainable network		
Environmental Action Plan (EAP) and annual environmental report	ODI-R, LO	ODI-R for science-based targets for BCF reductions. Multiple EAP

Output name	Output type	Parameters
		commitments in other impact areas - please refer to ET Annex
Insulation and Interruption Gas (IIG) leakage	ODI-F	Target-based symmetrical Financial ODI. Company targets to be confirmed at Final Determinations
Visual amenity in designated areas provision	PCD	Total expenditure cap of £465m for all TOs

Bespoke outputs

2.3 For RIIO-2, we invited companies to propose additional bespoke outputs as part of their Business Plans reflecting the needs of and feedback from their stakeholders and consumers.

2.4 We expected companies to support bespoke outputs with robust justification to ensure that the potential consumer benefits were reasonable, given the additional cost and/or regulatory complexity introduced into the price controls. In making our Draft Determinations for RIIO-2 outputs, we have sought to strike a balance between these trade-offs for each bespoke output. You can find the background and our assessment approach in our Core Document.

2.5 In this section, we set out our views on all of the bespoke outputs that SPT proposed in its Business Plan, and any that we propose to apply to SPT.

2.6 For full details on the bespoke outputs, refer to SPT's Business Plan submission.[2]

Bespoke output delivery incentives

2.7 The table below summarises the bespoke ODI proposals that SPT submitted as part of its Business Plan and outlines our consultation position.

Table 10: SPT's bespoke ODI proposals

[2] SPT's RIIO-T2 Business Plan.

Output name and description	Consultation position
Maximising environmental benefit from non-operational land (ODI-R): SPT proposed an ODI-R to provide non-operational land, at no charge, to community groups to install 4MW of renewable generation.	**Accept:** The ODI-R will deliver additional environmental benefits for current and future consumers at minimal cost. Please see further information under the heading "Maximising environmental benefit from non-operational land (ODI-R)" below. Our consultation position in relation to the CVP proposed in this area is set out in the CVP section of this document.
Stakeholder Engagement Plus: SPT proposed this ODI-F, covering the areas below: **1) Community Energy Schemes Capability (ODI-F):** SPT proposed an initiative to engage with community groups to bring renewable generation onto the network. **2) Stakeholder Engagement Performance Levels (ODI-F):** SPT proposed to meet the "Accountability healthcheck", which will be conducted annually by the owners of the AA1000 standard. SPT aim to achieve a "Mature" status score of above 76 out of 100. **3) Black Start Resilience of Communities in Vulnerable Circumstances (ODI-F):** SPT proposed to conduct a programme of engagement with communities in vulnerable circumstances with the aim of contributing to an increase in their resilience during events which result in extended periods without supply.	**1) Reject:** We expect engagement with local energy groups to be Business As Usual (BAU) in RIIO-ET2 and this proposal does not appear to go beyond that. **2) Reject:** We said in our SSMD[3] that we expect high-quality stakeholder engagement to be BAU in RIIO-ET2 and removed the Stakeholder Engagement Incentive. This proposal does not go sufficiently beyond BAU to warrant a financial incentive. **3) Reject:** We are of the view that insufficient justification and evidence of consumer value was provided for this proposal.
Whole System ESO-TO Constraint Mitigation (ODI-F): SPT proposed an ODI to encourage TOs to actively identify and propose infrastructure services under the provisions in SO-TO Code Procegure (STCP) 11.4 to mitigate the risk of constraint costs associated with network outages.	**Reject:** We are of the view that we have insufficient information to understand why an incentive is required to encourage the use of STCP 11.4, at this time. Please see further information under heading "Whole System ESO-TO Constraint Mitigation (ODI-F)" below.
Optimising Network Availability for Connected Generators (ODI-F): SPT proposed an ODI-F that applies a reward for any avoided loss of low carbon generation in a constrained network that is directly attributable to SPT's interventions.	**Reject:** Our view is that the direct benefit would fall to the generator rather than the consumer. We also note that the generator has provisions to pay for the services that SPT are proposing require an incentive.[4] We consider that TOs will be sufficiently incentivised to improve their performance in minimising the impact of planned outages on their customers through the Quality of Connections survey. We consider that acceptance of this output could

	result in SPT receiving double rewards for providing these improved services. For further information on the Quality of Connections survey, please see the ET sector document.
Additional Contribution to the Low Carbon Transition (ODI-F): SPT proposed an ODI-F for making an additional contribution to the Low Carbon Transition by reducing carbon emissions, delivering biodiversity net gain and improvements in the sustainability of SPT's supply chain.	**Reject:** We consider that the proposed ODI-F is not good value for money for consumers. Please see further information under heading "Additional contribution to the low carbon transition (ODI-F)" below.
Delivery against our Stakeholder Strategy (ODI-R): SPT proposed to report annually on its stakeholder engagement activities.	**Reject:** We do not consider it necessary to include the proposal as an ODI-R. We expect SPT to detail its delivery against its stakeholder strategy as part of its annual reporting.
Health and Safety (ODI-R): SPT proposed to be more transparent and accountable to consumers and stakeholders on its Health and Safety performance by reporting annually.	**Reject:** We expect engagement with staff and the public on Health and Safety Related matters to be BAU in RIIO-ET2 and beyond. This proposal does not seem to go beyond that.
Non Lead Asset Output Measurement (ODI-R): SPT proposed to report annually on its performance against non-lead asset replacement and refurbishment work based on metrics calculated using a monetised risk model (similar to the NARM models for lead assets) that it has recently developed.	**Reject:** While we welcome SPT's development of monetised risk models for its non-lead assets, as we have not yet had an opportunity to scrutinise its model, we do not feel there is a benefit to putting in place formal reporting arrangements at this time. However, we are keen to explore with SPT and other ETOs the possibility of extending the scope of NARM framework to non-lead assets.
RIIO-T2 System Outage Management Proposals to Reduce Constraint Costs (ODI-F): This was a joint proposal from the TOs and ESO for a four staged approach to implementing a TO 'on demand service' which will provide flexibility to the ESO.	**Reject:** We are of the view that we have insufficient information to understand why an incentive is required to encourage the use of STCP 11.4, at this time. We also consider this proposal to be out with the remit of the NIA scope. We encourage the TOs to resolve the barriers that exist in the procedures that they have identified. Please see further information under heading "RIIO-T2 System Outage Management Proposals to Reduce Constraint Costs (ODI-F)" below.

Consultation questions

SPTQ1. Do you agree with our proposals on the bespoke ODIs? If you disagree, please outline why.

[3] RIIO-2 Sector Specific Methodology Decision.
[4] We note that generators have the ability to pay for these services under STCP18.1.

Accept: Maximise benefit from non-operational land ODI-R

Maximise benefit from non-operational land ODI-R	
Purpose	Provide land at non-operational sites for community groups to install community generation projects and deliver biodiversity enhancements.
Benefits	Reduced carbon emissions and biodiversity improvements for current and future consumers.

Background

2.8 In its Business Plan, SPT has proposed an ODI-R to provide non-operational land, at no charge, to community groups to install 4MW of renewable generation, enabling approximately 1,200 tCO_2 savings annually, as well as biodiversity enhancements at up to 20 sites.

Consultation position

Output parameter	Consultation position
Mechanism design	We are consulting on accepting SPT's ODI-R proposal.
Target	To deliver by 2025/26: • 4MW of community generation on non-operational land • biodiversity enhancements at 20 sites.
Implementation	We propose that SPT report on progress against the output in its annual regulatory return and in its Annual Environmental Report on the following metrics: • MW of renewable generation installed by local community groups • change in biodiversity units on non-operational land at network sites.

Rationale for consultation position

2.9 We propose to accept SPT's bespoke ODI-R to provide non-operational land to local community groups to install renewable generation and biodiversity enhancements. This is because SPT's bespoke output:

- will deliver additional environmental benefits for current and future consumers at minimal cost
- is a useful addition to its RIIO-2 EAP commitments related to biodiversity (see ET Annex)
- clearly signals SPT's intent that during the course of RIIO-2, it would not only build its capacity and understanding of opportunities to enhance the biodiversity in its licence area, but it would also deliver biodiversity improvements. We welcome SPT's stronger ambition in this area.

2.10 Our consultation position in relation to the CVP that SPT proposed in this area is set out in the CVP section of this document.

Consultation questions

SPTQ2. Do you agree that SPT's bespoke ODI-R would be in the interests of existing and future consumers and do you have any views on the proposed metrics to track SPT's progress in delivering the ODI-R?

Reject: Whole System ESO-TO Constraint Mitigation

Background

2.11 SPT submitted a proposal for an ODI-F to encourage the use of the provisions in STCP 11.4, a procedure which SPT believes has been underutilised since its introduction in 2019.

2.12 STCP 11.4 is a new procedure which provides a £1.5m pot of funding for the ESO to pay the TOs to recover any costs incurred through modifying their fixed outage plans.[5] The ESO can choose to use this funding where they identify a reduction in constraint costs from the services that the TOs will provide. The ESO also has the ability to increase this pot where the additional allowances are justified.

2.13 SPT proposed an incentive rate based on a percentage of the forecast constraints avoided through the provision of their services. SPT have also proposed a cap of £2.28m per annum based on the consumer benefit of achieving a forecast reduced constraint costs of £22.8m constraint savings, which is typically 11% of annual constraint values.

2.14 In their proposal, SPT provided an example where it applied for STCP 11.4 funding for a replacement of a circuit breaker, which SPT believed had potential to unlock future benefits for consumers. The ESO rejected its application for funding, as it did not note any risk of constraints. SPT believed that this was a conservative assessment.Consultation position

2.15 We are proposing to reject SPT's ODI-F proposal for Whole system ESO-TO constraint mitigation.

[5] Please see further information on STCP11.4.

Rationale for consultation position

2.16 It is not clear to us, based on the information before us at this time, why SPT is of the view that an incentive is needed to use STCP 11.4. The example which SPT provided in its proposal has demonstrated to us that it has been able to apply for STCP 11.4 funding in RIIO-ET1 without an incentive. In this example, the ESO could not identify how SPT's services would reduce constraint costs. It is unclear how an incentive would have changed the ESO's assessment or how this would impact the outcome of future applications.

2.17 We also note that this procedure was recently introduced and we do not think that there has been sufficient time to understand the impact that STCP 11.4 will have.

2.18 SPT, as well as the other TOs, have noted that there are barriers in the STCP 11.4 process.[6] We would encourage SPT to continue discussions on how to resolve the barriers that they have identified, and to utilise the existing STC Modification Process where appropriate in order to explore any possible changes to STCP 11.4 through the STCP panel process.[7]

2.19 We note that there are multiple other existing tools in place to ensure efficient collaboration and engagement between the ESO and TOs for the benefit of consumers in relation to constraint costs. These tools include the TOs' Licence Obligation to have and act in line with the NAP[8], obligations set out in the Security and Quality of Standard (SQSS), the Grid Code and the STCPs. We also note that the ENS incentive[9] incentivises the TOs to reduce risk of energy not supplied and thus in some cases indirectly encourages efficient outage management.

2.20 As part of the NAP, the TOs have proposed a number of KPIs, which they will report on over RIIO-ET2. In particular, TOs will report on the number of proposals that are identified and delivered under STCP 11.4 throughout RIIO-ET2. We will monitor the use of STCP 11.4 over RIIO-ET2 to understand how this procedure is being utilised and whether it is providing sufficient flexibility.

Consultation questions

SPTQ3. Do you agree with our proposal to reject SPT's bespoke ODI-F at this time?

[6] For example, the TOs note that the STCP process is slow and burdensome.
[7] Please see NGESO website for further information on the STC meeting and documents.
[8] Please see the ET Annex for further information on the Network Access Policy.
[9] Please see Chapter 3 of the ET Annex for further information on the ENS incentive.

Reject: Additional contribution to the low carbon transition ODI-F

Background

2.21 SPT proposed a bespoke ODI-F for making an additional contribution to the low carbon transition. It said that the incentive would encourage three areas of improvement:

- maximising supply chain sustainability
- accelerating adoption of low carbon fleet compared to baseline rollout programme (programme to meet 2030 EV100 commitment)
- delivering biodiversity net gain initiatives on existing sites.

2.22 SPT proposed that the ODI-F would operate as a (discretionary) reward-only incentive on a qualitative assessment by SPT's User Group based on the annual performance of the company in each area.

2.23 SPT proposed a reward set at 0.5% of Base Revenue per year (estimated £8.7m max reward over RIIO-ET2).

2.24 Following assessment, SPT proposed that the User Group would recommend that SPT receive a zero, 50% or 100% of the incentive reward.

Consultation position and rationale

2.25 We propose to reject SPT's bespoke ODI-F proposal. We are of the view that overall it does not represent value for money for consumers. This is because:

- The proposal did not include sufficient detail on the methodology that the User Group would follow to assess performance. As a result, we are not convinced that the assessment would be systematic and comprehensive.
- The level of performance that SPT would need to demonstrate in order to earn a reward under the ODI-F is unclear. SPT have a baseline programme for only one of the areas that it proposed to include in the ODI-F, ie the electric vehicle rollout. It is unclear how the User Group can assess performance in the other areas if there is no clarity on baseline performance or benchmarks that would be expected in the absence of the ODI-F.
- the proposed incentive rate is not justified. We've estimated that in the event that SPT achieved a 100% rollout of EV in RIIO-2, the company would receive

a reward of more than £8,000 per tCO_2e abated. This significantly exceeds the average value of the non-traded carbon price in RIIO-2.

Consultation questions

SPTQ4. Do you agree that SPT's bespoke ODI-F should be rejected?

Reject: RIIO-T2 System Outage Management Proposals to Reduce Constraint Costs

Background

2.26 In May 2020, in light of feedback that we provided after the Business Plan submissions, all three TOs and the ESO submitted a joint paper outlining proposals related to reducing constraint costs through optimising system outage management. This set out a four-staged approach that intends to provide additional flexibility to the ESO in minimising constraint costs, as follows:

- Stage 1: Streamline the administrative process for ESO-TO code procedure (STCP) 11.4 to make it quicker and easier to complete.[10]
- Stage 2: Introduce a common ODI-F from year 1 of RIIO-ET2 for TOs to identify and progress asset-based solutions using STCP 11.4.
- Stage 3: Report on the forecast constraint cost savings and solutions provided under STCP 11.4 by the TOs in order to demonstrate consumer benefits.[11]
- Stage 4: Trial an "on-demand service" with a defined budget, which could be provided through the NIA for TOs to take this forward.

Consultation position

2.27 We are proposing to reject the above proposals relating to additional funding or incentives to minimise constraint costs.

Rationale for consultation position

2.28 The TOs have identified barriers in the use of STCP 11.4, which they propose to resolve under this four-staged incentive proposal.[12] We encourage the TOs and the ESO to continue discussions on how to resolve the barriers that they have identified, and to utilise the existing STC modification process, where appropriate,

[10] STCP 11.4 is a new procedure which provides a £1.5m pot of funding for the ESO to pay the TOs to recover any costs incurred through modifying their fixed outage plans. Please see further information on STCP11.4.
[11] The TOs note that this information could be reported to the User Groups and events such as the OC2 Forum.
12 For example, the TOs note that the STCP processes are slow and burdensome.

in order to explore any possible changes to STCP 11.4 through the STCP panel process.[13]

2.29 As we have set out above in SPT's proposal for the Whole System Constraint Mitigation ODI, we have not seen sufficient evidence to support the need for an ODI to encourage the use of STCP 11.4 at this time. We note that this STCP was recently introduced and we do not think that there has been sufficient time to understand the impact that STCP 11.4 will have. We intend to monitor the use of STCP 11.4 through the KPIs that have been included in the NAP proposal put forward by the TOs for RIIO-2; KPI 11 in particular.[14] These KPIs will enable us to better understand TO outage management and the use of tools such as STCPs over RIIO-2.

2.30 We consider that stage 3, as outlined by the TOs, will be sufficiently supported through the NAP KPIs.

2.31 In addition, in our SSMD, we decided that the NIA would primarily focus on energy system transition and addressing consumer vulnerability. We do not think that this proposal falls within the scope of NIA.[15]

Consultation questions

SPTQ5. Do you agree with our consultation position to reject the "RIIO-T2 System Outage Management Proposals to Reduce Constraint Costs"?

Bespoke Price Control Deliverables

2.32 The table below summarises the bespoke PCD proposals that SPT submitted as part of its Business Plan and outlines our consultation position.

13 As set out in the STC modifications.
14 Please see the ET sector Annex for further information on the NAP.
15 SSMD Core Document, paragraph 10.54

Table 11: SPT's bespoke PCD proposals

Output name and description	Consultation position
Non Load - Cable Sealing Ends: SPT proposed a PCD for their planned Cable Sealing End interventions in RIIO-ET2.	**Accept:** See Chapter 3.
Non Load - Currie - Gorgie Cable Replacement: SPT proposed a PCD for planned replacement of the Currie-Gorgie Cable in RIIO-ET2.	**Accept:** See Chapter 3.
Non Load - Longannet Series Reactor Refurbishment: SPT proposed a PCD to cater for major substation refurbishment project.	**Accept:** See Chapter 3.
Non Load - Longannet 275kV Switchgear Replacement: SPT proposed a PCD for a major substation project	**Accept:** See Chapter 3.
Non Load - Westfield 275kV Switchgear Replacement: SPT proposed a PCD for switchgear replacement.	**Accept:** See Chapter 3.
Non Load - XH & XJ Overhead Line Major Refurbishment: SPT proposed a PCD for OHL refurbishment.	**Accept:** See Chapter 3.
Wider Works - Generation Export Management System (GEMS): SPT proposed a reinforcement to allow embedded generation in Dumfries and Galloway to export onto the transmission network.	**Accept:** See Chapter 3.
Wider Works - Harmonic Filters: SPT proposed to install 120MVAr of harmonic filters on the 132kV network.	**Accept:** See Chapter 3.
Wider Works - NOA (Excluding DWNO): SPT proposed a PCD for boundary capability upgrades with a recommended proceed in the ESO's NOA.	**Accept:** See Chapter 3.
Wider Works - Voltage Management: SPT proposed to install shunt reactors and STATCOMs to provide 515MVAr of compensation to address voltage non-compliance due to closure of Hunterston and changes to generation profile,	**Accept:** See Chapter 3.
Wider Works - Black Start: SPT proposed to install 30 circuit breakers with the capability for point on wave switching and the reconfiguration of 16 sites across the network.	**Accept:** See Chapter 3.

Demand Connections - Kendoon to Tongland Reinforcement: SPT proposed a reinforcement to allow embedded generation in Dumfries and Galloway to export onto the transmission network, PCD to manage a range of uncertainty.	**Accept:** See Chapter 3.
Demand Connections - Network Rail: SPT proposed a reinforcement across substations to provide capacity to Network Rail as contracted.	**Reject:** While we accept the rationale for the PCD, we have not received any justification for the schemes that would be covered by it. We reject the PCD in the absence of this information. See Chapter 3 for further details.
Demand Connections - SP Distribution: SPT proposed a PCD for connection projects across a range of named sites.	**Accept:** See Chapter 3.
Generation Connections - Shared Use - 2027MVA: SPT proposed a PCD for connection of 2,027MVA of new network capacity to the transmission network.	**Accept:** See Chapter 3.
Generation Connections - Sole Use - 900MW: SPT proposed a PCD for the connection of 900MW of generation to the transmission network.	**Accept:** See Chapter 3.
Net Zero Fund: SPT proposed a Net Zero Fund to support low carbon initiatives with tangible outcomes that benefit vulnerable communities.	**Accept:** We propose to accept SPT's bespoke PCD for a £20m NZF, on a use-it-or-lose-it basis, subject to three conditions. We have provided further information under 'Net Zero Fund PCD' heading below.
Energy Not Supplied (ENS) Ring Fenced UIOLI Funding: SPT proposed an annual £1.5m 'use it or lose it' funding to mitigate and respond to risks of loss of supply events during planned outages affecting distribution-connected customers.	**Reject:** We do not think SPT's bespoke output is an appropriate, efficient, or proportionate policy solution to address the difference in design characteristics of the Scottish transmission network. We have provided further information under 'Energy Not Supplied (ENS) Ring Fenced use-it-or-lose-it funding' heading below.
Wider Works - Circuit Rating Management System: SPT proposed the installation of real time thermal rating system utilising analytics and data processing. PCD due to the rating uplift being dependent upon weather conditions at time.	**Reject:** See Chapter 3.

Consultation questions

SPTQ6. Do you agree with our proposals on the PCDs? If not, please outline why.

Accept: Net Zero Fund PCD

Net Zero Fund PCD	
Purpose	A £20m fund to finance practical, low carbon initiatives that focus on energy projects to benefit communities and customers in vulnerable circumstances.
Benefits	Fund will empower vulnerable communities to initiate low carbon energy projects to address their energy issues and contribute to the UK's Net Zero objective.

Background

2.33 In its Business Plan, SPT proposed a £20m PCD for a Net Zero Fund (NZF) to support low carbon initiatives with tangible outcomes that benefit vulnerable communities and contribute to the UK's Net Zero objectives.

2.34 The NZF would build upon SPT's current consumer-funded 2 year Green Economy Fund, which has funded 33 initiatives supporting local communities and green energy projects.[16] The Green Economy Fund will end in RIIO-1.

2.35 SPT did not set out a detailed programme of projects that it would progress in the NZF. Instead, SPT propose that the NZF would be open to applications for projects that allow vulnerable communities to access the potential benefits from smart energy systems in a Net Zero future.

2.36 In its Business Plan, SPT proposed a set of objectives, priorities, minimum criteria for funding applications, and how projects would be ranked when deciding what to invest in.[17] SPT has provided evidence of engagement with stakeholders, including Citizens Advice, Citizens Advice Scotland, Community Energy Scotland and the Scottish Government to develop its proposed criteria for the NZF.

Consultation position

Output parameter	Consultation position
Net Zero Fund PCD	We are consulting on accepting SPT's PCD proposal for a £20m Net Zero Fund into baseline allowances on a use-it-or-lose it basis. We propose that each initiative SPT funded through the NZF would need to have clear outcomes and deliverables, and be subject to an evaluation following project completion. Unspent allowances would be automatically returned to customers, as would allowances for projects that do not meet their deliverables.

[16] SPT's Geen Energy Fund.
[17] For further information on SPT's proposed Net Zero Fund see pages 109 to 113 of its Environmental Action Plan.

Rationale for consultation position

2.37 We propose to accept SPT's bespoke PCD for a £20m NZF subject to three conditions set out below. This is for the following reasons:

- SPT's proposal would contribute to the UK's Net Zero objectives.
- SPT's proposal would help address the potential risk that vulnerable consumer groups are left behind in the transition.
- There is also good evidence of strong stakeholder support for the SPT's NZF proposal, and positive consumer Willingness to Pay for SPT continuing with the current level of community measures it undertakes (which this proposal would build upon).[18]

2.38 Communities and consumers in vulnerable circumstances have less capacity to keep up with smart energy developments and risk facing a disproportionate detriment. We consider that SPT's proposed NZF would help to identify the TO's role in mitigating this risk, and it is consistent with Ofgem's Decarbonisation Action Plan, "We need to make sure that consumers in vulnerable situations are not left behind or disadvantaged by the changes".[19]

2.39 SPT has not set out specific projects in its Business Plan for the NZF. However, we consider that a flexible approach would allow SPT to work with the stakeholders and project partners it has established under its Green Economy Fund to address the needs of vulnerable communities in the transition.

2.40 To ensure that the NZF operates in the best interest of consumers we are consulting on adding three conditions to this PCD in order to strengthen SPT's accountability for the NZF. First, we propose that SPT would be required to publish project funding decisions on its website, which summarise its evaluation of the applications against the NZF's objectives, priorities and criteria, as well as details of the project deliverables and outcomes.

2.41 Second, we propose that SPT should also publish on its website a project report at the completion of each project about progress against its key milestones, budget, deliverables and outcomes. We also propose that at the end of RIIO-ET2, SPT would publish on its website an evaluation on the effectiveness of the RIIO-ET2 NZF programme in delivering against its objectives, the realised consumer value,

[18] The TOs jointly commissioned NERA to undertake a WTP studying covering improvements in several service attributes, including supporting community initiatives for improve social outcomes. A summary of the study can be found here: SSE – Consumers' Willingness to Pay.
[19] See page 14 of Ofgem's decarbonisation programme action plan.

and the key learnings. For example, the NZF could help identify what support a network company is best placed to provide to ensure more vulnerable consumers are able to keep up in the low-carbon transition and how such support can be delivered to a good standard.

2.42 Third, we propose that the NZF would be funded on a use-it-or-lose-it basis. Any unspent allowances would be automatically returned to customers, as will allowances for projects than do not meet their deliverables.

2.43 We considered whether to extend SPT's bespoke PCD to the other electricity TOs, effectively making this a common ODI-F. However, we are not proposing to do this in RIIO-2 because we consider the other TOs are not in the same position as SPT, who can leverage from its experience and existing partnerships on the Green Economy Fund, to mobilise the NZF from the start of RIIO-ET2.

Consultation questions

SPTQ7. Do you agree that SPT's bespoke Net Zero Fund should be included in RIIO-ET2?

SPTQ8. Do you have any views on the conditions we are proposing applying to SPT's bespoke output?

<u>Reject: Energy Not Supplied (ENS) Ring Fenced use-it-or-lose-it funding</u>

Background

2.44 SPT proposed an annual £1.5m "use it or lose it (UIOLI)" fund to mitigate and respond to risks of loss of supply events during planned outages affecting distribution-connected customers.

2.45 There is a range of mitigating options (and associated costs) available to TOs, however they are often bespoke, and dependent on various factors (eg if a project is live, location of works). SPT has provided a few examples of mitigating actions, such as delivering an offline build.

Consultation Position

2.46 We do not think SPT's bespoke output is an appropriate, efficient, or proportionate policy solution to address the difference in design characteristics[20] of the Scottish transmission network. We propose to reject SPT's proposal.

Rationale for consultation position

2.47 The risk of loss of supply events on the 132kV network in Scotland may be higher than compared to the transmission network in England and Wales due to different network characteristics. Nonetheless, SPT has maintained historically low levels of ENS during RIIO-ET1 despite increases in planned outages. We consider that SPT would be able to continue its good practices in ENS risk management in outage planning in RIIO-ET2 without the additional funding it has proposed (particularly as the ENS ODI would still apply).

2.48 We do not think that SPT has provided robust evidence of:

- whether the number of transmission faults resulting in ENS for distribution end customers is consistently increasing
- whether the funding amount of £1.5m per annum for the use-it-or-lose-it funding pot is appropriate and proportionate due to the uncertainty and bespoke nature around mitigation solutions and their costs[21]
- whether the additional funding pot is supported by customers and stakeholders.

2.49 We think that SPT has not justified why the allowance level for the Outage Changes and Commercial Operational Services (OCCOS), set out in STCP 11.3 and 11.4[22], is comparable and an appropriate proxy for ENS mitigation measures costs. OCCOS is not related to ENS - it is for the ESO to pay a network company to make a change to a scheduled outage. We also note that the annual amount of

[20] In Scotland, the 132kV network is part of transmission network and is less interconnected to Grid Supply Points, compared to higher voltage levels. As a result, the transmission network in Scotland has less "redundancy", meaning there may be a higher risk that a planned network outage in Scotland could result in ENS. This would result in loss of supply to directly connected customers on the 132kV network and to end consumers on the distribution network.
[21] ENS mitigation costs are often embedded within projects. TOs have said that separating these costs is difficult, and have not done so to date. Consequently, there has been limited reporting of mitigation costs for Ofgem to benchmark efficient mitigation costs.
[22] This procedure describes the processes for managing any costs payable by NGESO to a network company associated with requests by NGESO for a change to a network company Outage, not caused by that network company, and any Knock-on Outage.

£1.5m for OCCOS is the total available for all three TOs, not an individual network company.

2.50 We also highlight the following issues:

- SPT's proposal does not consider penalties, or compensation to customers, if the use-it-or-lose-it funding is spent, but customers continue to experience ENS.
- SPT has not explained how it would ensure that ENS mitigation costs that are funded through the proposed use-it-or-lose-it fund remain separate from those included in baseline totex allowances (ie embedded within project costs within Engineering Justification Papers, EJPs).

Consumer Value Propositions

2.51 The table below summarises the CVP proposals that SPT submitted as part of its Business Plan and our consultation position in relation to each. Where additional space is required to outline our rationale, we have provided further information under specified headings.

2.52 For further information on the proposed CVPs, please see SPT's published Business Plan.[23] In the table below, outputs and benefits are as described in SPT's published Business Plan.

Table 12: SPT's CVP proposals

[23] SPT – Business Plan Annex, Consumer Value Propositions

CVP name and description	Consultation position
CVPs we propose to accept	
Maximise benefit from non-operational land: SPT proposed to provide non-operational land to community groups to install 4MW of renewable generation, delivering £4.2m benefit over the life of the projects.	**Accept:** We consider that SPT's proposal goes beyond BAU and provides demonstrable consumer benefit – Please see further information under the heading "Maximise benefit from non-operational land".
CVPs we propose to reject	
Carbon abatement: SPT proposed a CVP and requested baseline funding for directly connecting 889MW of renewable generation, creating capacity for 800MW of embedded generation and increasing the capacity for additional renewable generation to be transferred across Scotland and Great Britain by 800MW. Stated emissions reductions would deliver £81m benefit per annum.	**Reject:** We consider that facilitating connection of renewable generation to the network should be considered as BAU and does not present additional value to existing and future vulnerable consumers.
Additional contribution to the low carbon transition: Relating to three proposed elements: maximising supply chain sustainability, accelerating adoption of low carbon fleet, and delivering biodiversity net gain initiatives, delivering £3.16m benefit.	**Reject:** We do not consider there is sufficient supporting evidence or appropriate methodology. We propose to reject the ODI-F to which this proposal relates.[24]
Non-Load network constraint costs: Detailed designs and extensive planning for management of asset risk, generating a net benefit of up to £5.7m of avoided network constraint costs.	**Reject:** We consider this is BAU activity expected of the TOs when assessing options for delivery. This option will be delivered using baseline allowances.
Net Zero Fund: CVP relates to a PCD proposal for a £20m fund we propose to accept.[25] SPT proposed that this would support the creation of jobs in local communities as well as delivering carbon savings and supporting communities in vulnerable circumstances, delivering £60m social benefit over the life of the fund projects.	**Reject:** We do not consider the methodology includes sufficient evidence demonstrating how each pound invested equates to three pounds of consumer value. Additionally, there is insufficient evidence of consumer support for the CVP proposal.
SF6 commitments: Commitments to SF6 leakage reduction and alternatives, avoiding 9,700kg of SF6, a potent greenhouse gas, being added to the network across RIIO-ET2, delivering £11.8m benefit over the life of the assets.[26]	**Reject:** We do not consider that this proposal goes beyond BAU. SPT can receive reward for reduction of SF6 through the IIG ODI-F.[27]
Connections Incentive: Incentive comprising of three sections (Quality of Connection Survey, Quality of Engagement Survey and Timely	**Reject:** This activity is already incentivised through an ODI-F and we do not consider that SPT has demonstrated any additional value for existing and future vulnerable consumers to justify a CVP reward.

Connections Offers), delivering £9.5m benefit per annum.	
Losses strategy: Network losses reduction initiatives contained within Losses Strategy will result in the avoidance of 3,700 tCO_2e annually, delivering £36.1m benefit over the life of the assets.	**Reject:** We do not consider this goes beyond BAU. It is a BAU requirement for all TOs to have a losses strategy.[28]
Low carbon fleet: Replacing 100% of 72 cars and vans with electric alternatives by the end of RIIO-ET2, avoiding over 320 tCO_2e emissions per year, delivering £0.1m benefit over the life of the assets.	**Reject:** Due to the inherent uncertainty around the future pace of Electric Vehicle (EV) rollout, the future cost of EVs, and the small value of the estimated CVP, we do not feel it is in consumers' interests to include any financial incentives related to the EV rollout.
Network availability incentive: Relating to proposed outputs: Energy Not Supplied and Optimising Network Availability for Connected Generation, delivering benefit of up to £6.5m per annum.[29]	**Reject:** This activity is already incentivised through an ODI-F and we do not consider it in consumers' interests to apply an additional reward for the same activity.
Stakeholder engagement PLUS: Relating to three proposed outputs: Black Start Resilience, Community Energy Scheme Capability and Stakeholder Engagement Performance Levels,[30] which will benefit customers, delivering £3.4m benefit per annum for each output.	**Reject:** We propose to reject the ODI-F to which this proposal relates. We do not consider that this goes beyond BAU. Additionally, there is no justification setting out why additional reward is justified.
Energy system transition innovation: Solving strategic energy system transition challenges in RIIO-ET2 through innovation, delivering benefit in excess of £73m in RIIO-ET3.	**Reject:** We do not believe SPT should receive additional funding for this focussed on energy system transition innovation. SPT are otherwise incentivised to do innovation as part of BAU activities within the RIIO-ET2 period and have been awarded NIA funding for the RIIO-ET2 period to fund innovation focused on the energy system transition. Therefore, we do not believe additional funding is justified for this CVP.
Innovation rollout: Rolling out of successful innovation projects on SPT's network, delivering benefit in excess of £30m.	**Reject:** Allowances were already made for these activities in RIIO-ET1. We consider this activity in RIIO-ET2 as BAU.
Non-load risk: Managing condition and risk of the asset base resulting in network users and consumers benefit by reducing network risk, delivering	**Reject:** We do not consider that the NARMs process, or network management approach is beyond BAU.

[24] Please see Table 9 for further detail.
[25] See Paragraph 2.33 for further details.
[26] SF6 is used in high-voltage equipment for electrical insulation and arc-interruption in live electrical equipment operation. It has a greenhouse gas warming potential that is 23,900 times more harmful to the environment than CO2.
[27] See the ET Annex for further details on the common IIG ODI-F.
[28] In our SSMD - ET Document we stated we require TOs to retain a 'comprehensive strategy for minimising controllable losses.' Paragraph 3.96
[29] See Table 3 and Table 10 for further information on these outputs and our proposed treatment.
[30] See Table 9 of SPT's bespoke ODI proposals.

£1,600m benefit compared to deferring investments.	
Non-load asset modelling: Using advanced modelling of asset condition, maximising the economic lives of assets, avoiding £81m of investment in RIIO-ET2.	**Reject:** We do not consider that this modelling pushes the boundary compared to modelling undertaken for the NARM process or BAU asset management.
Electric vehicle capacity: Ensuring transmission network capacity for charging 130,000 new electric vehicles by the end of RIIO-ET2, delivering £3.7m benefit per year by end of RIIO-ET2.	**Reject:** We do not view the cost of this reward as appropriate to socialise across all consumers. We do not consider there is sufficient engineering justification that electric vehicle connections are driving reinforcement work at transmission level. We are not confident in how the benefits of reinforcement work are defined.
Networks safety education programmes: Delivering educational programmes on electrical safety to approximately 26,000 children and 22,000 adults annually over RIIO-ET2, delivering £0.38m benefit over RIIO-ET2.	**Reject:** The Electricity Safety, Quality and Continuity Regulation (ESQCR) includes a duty for networks to take "proactive measures" educating the public. As such, we consider this should be BAU.
Constraint costs: Reducing the annual constraint costs the ESO would incur by the end of RIIO-ET2 as a result of boundary upgrades SPT are completing in the period, delivering £152m benefit per annum by end of RIIO-ET2.	**Reject:** We consider this is BAU activity that will be delivered using baseline allowances.
Whole system ESO-TO constraint mitigation: Relating to proposed ESO-TO constraint mitigation incentive (see paragraph 2.11), reducing constraint costs by approximately 10%, delivering up to £21m benefit per annum.	**Reject:** We are proposing to reject the associated ODI-F (see paragraph 2.11) on the basis that we do not have sufficient evidence to justify why an incentive is required to encourage the use of the STCP11-4. We are therefore of the view that SPT does not require a CVP reward to deliver against the use of these provisions.
Mental health first aid: Aiming to train 2% of staff as mental first aiders, and reducing mental health problems within workforce, delivering £3.3m benefit over RIIO-ET2.	**Reject:** We consider ensuring the well-being of staff to be BAU. Additionally, we do not consider the quantification methodology is justified.
Substation energy efficiency: Implementing energy efficiency measures at 48 substations, reducing energy consumption by more than 1,000MWh per year, delivering £2.4m benefits.	**Reject:** We expect the licensees to be installing efficient solutions at their sites as part of BAU, this proposal does not exceed our expectations for that.
Innovation projects partnerships: Partnering with a wide range of third parties, SMEs and universities. The benefit of this proposal was not quantified in monetary terms.	**Reject:** We welcome SPT's proposal to partner with a range of third parties in developing innovation projects. However, we consider engagement of this sort to be BAU in RIIO-2.

Reduced incidents and absences: resulting in a more efficient workforce with high morale. The benefit of this proposal was not quantified in monetary terms.	**Reject:** We consider workforce health and safety to be a BAU requirement for any network company, and it is not demonstrated that this proposal results in wider benefits for current and future consumers.
Workforce health and safety: Resulting in wider socio-economic benefits, and reducing impacts on NHS. The benefit of this proposal was not quantified in monetary terms.	**Reject:** We consider workforce health and safety to be a BAU requirement for any network company, and it is not demonstrated that this proposal results in wider benefits for current and future consumers.
Injuries in the workplace: The benefit of this proposal was not quantified in monetary terms.	**Reject:** We consider workforce health and safety to be a BAU requirement for any network company, and it is not demonstrated that this proposal results in wider benefits for current and future consumers.

Consultation questions

SPTQ9. Do you agree with our proposals on the CVPs? If not, please outline why.

Accept: Maximise benefit from non-operational land

Maximise benefit from non-operational land	
Purpose	SPT will provide land at non-operational sites for community groups to install community generation projects and provide biodiversity enhancements.
Benefits	Reduced carbon emissions; biodiversity improvements

Background

2.53 SPT has proposed to provide non-operational land for free to community groups to install 4MW of renewable generation, enable ~1200 tCO2e carbon savings annually and support biodiversity enhancements at up to 20 sites.

Consultation position

Output parameter	**Consultation position**
Deliverable	Providing non-operational land for the installation of 4MW of community generation and biodiversity enhancement at 20 sites
CVP value (£m)	£4.2m
CVP reward (£m)	£1.6331m
Proposed approach to allowance clawback	Automatic pro-rata return for installed generation under 4MW

31 Value multiplied by SPT totex incentive sharing factor rate

Rationale for consultation position

2.54 We propose to accept SPT's CVP to provide non-operational land to community groups to install renewable generation. We consider that SPT's proposal to provide this land for free goes beyond a BAU activity.

2.55 SPT has responded to stakeholders' demands by providing land without charge to community groups to deliver and manage biodiversity enhancement initiatives over the lifetime of the lease. Although SPT has not proposed a methodology for monitoring biodiversity improvements, we are of the view that this can be adequately dealt with through a commitment between SPT and the group to deliver the required biodiversity enhancements.

2.56 We consider that the quantification methodology and assumptions used by SPT to calculate the consumer benefit are reasonable, despite it being challenging to robustly calculate future carbon costs.

2.57 We accept SPT's proposed methodology for returning a portion of the reward to consumers in the event of non-delivery. SPT has committed to pro-rate any reward return in the event that 4MW of renewable generation is not installed on its sites using the following formula:

Return (£) = (Connected generation capacity (MW) / 4MW) * CVP reward (£)

Consultation questions

SPTQ10. Do you agree with our consultation position to accept the maximise benefit from non-operational land CVP?

3. Setting Baseline Allowances

Introduction

3.1 This chapter sets out our proposed allowances against the different cost areas within SPT's Business Plan submission. We have set baseline totex allowances for SPT only where we are satisfied of the need for and certainty of the proposed work, and where there is sufficient certainty of the efficient cost of the work. We provide our proposals on what elements of the plan should be accepted as the basis for setting the RIIO-ET2 baseline allowance, what elements should be rejected as not being in consumers' interests and any modifications we are proposing to the efficient costs for company projects or activity levels. We also present the price control deliverables that arise from the proposed list of approved projects.

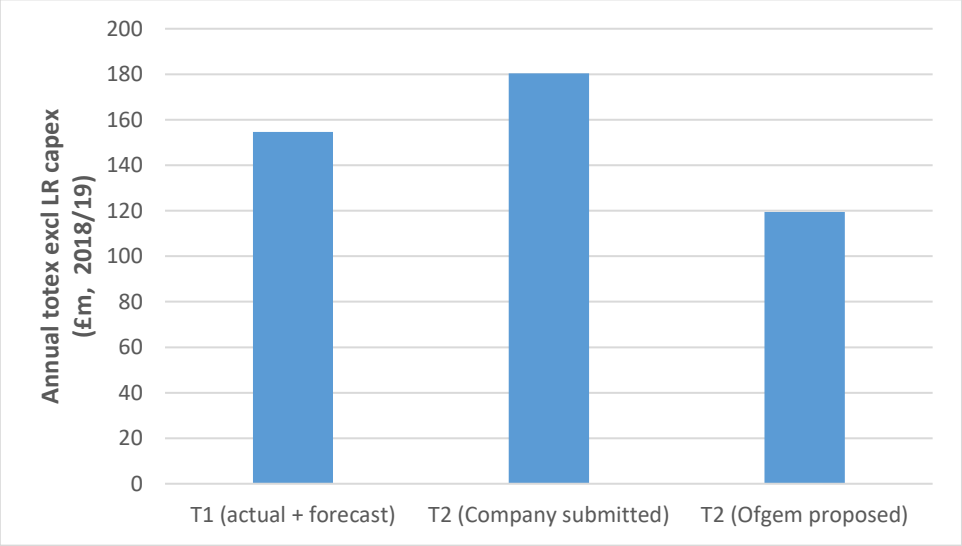
3.2 Table 13 sets out our proposed RIIO-ET2 totex allowances for SPT, grouped by the main cost categories within the Business Plan Data Template (BPDT).

Table 13: Proposed SPT allowance for RIIO-ET2 period

Cost Category	SPT submission (£m)	Work/volume reductions (£m)	Cost reductions (£m)	Ofgem Baseline allowance (£m)
Load related expenditure	486.3	77.0	37.4	371.9
Non-load related expenditure	452.2	99.5	32.3	320.3
Non-operational capex	14.9	10.0	0.4	4.5
Network operating costs	110.1	0.0	24.5	85.6
Indirect opex	273.2	22.4	41.2	209.6
Other costs	51.8	14.0	0.0	37.8
Efficiency challenge				-60.1
Total	**1388.5**			**969.6**

3.3 The submission and proposed allowances for RIIO-ET2, and forecast RIIO-ET1 end position, are shown in Figure 2, all values are shown in annual average and exclude load related capex.[32]

Figure 2: SPT Annualised totex in RIIO-ET1 and RIIO-ET2



3.4 Of our proposed total baseline totex allowance, we assess £608m to be of high confidence and £352m to be of lower confidence. Also, some costs are deemed to be exempt from the BPI and TIM mechanisms and these are noted in the relevant section relating to the cost category. This results in a sharing factor for the totex incentive mechanism at 39.1%. The total proposed penalty due to the BPI Stage 3 incentive is £16.7m. Our consultation position is that there are no BPI Stage 4 rewards for SPT.

3.5 SPT's cost submission had a clear and acceptable overall structure, where EJPs supported by Cost Benefit Analysis and Asset Condition Reports explained its proposed expenditure. The submission is consistent and navigable and SPT Business Plan outputs are traceable to both in specific EJPs and Business Plan Data Table items. Overall SPT submitted 110 EJPs; 44 for load related activity, 66 for non-load related activity.

[32] We have excluded load-related capital expenditure from the comparison in Figure 2 because direct comparison of our baseline proposals against RIIO-T1 actual rates of expenditure would be misleading. This is because the RIIO-T1 actual expenditure for load reflects all of the costs covered both by the price control baseline allowances and the RIIO-T1 uncertainty mechanisms. By comparison, our baseline proposals for RIIO-T2 do not reflect the impact of uncertainty mechanisms. We have set uncertainty mechanisms for RIIO-T2 to accommodate a potentially significant increase in investment needs, however, do not currently have a central forecast for this value.

3.6 The following sections set out the rationale for the differences between the company submission and Ofgem's proposed allowances, by cost category as identified in Table 13 above.

Capital expenditure (Capex)

3.7 We have reviewed the submitted capital expenditure program along with the main cost categories of load related expenditure, non-load related expenditure and non-operational capex. We specify below the expected outputs for a given approved baseline scheme or activity. If these outputs are not delivered, then Ofgem can clawback allowance for the degree of non-delivery.

Load related expenditure

3.8 SPT's baseline plan for Load Related Expenditure (LRE) comprises a range of sole use work, local enabling work, and work associated with strategic infrastructure. SPT's total request is £486m for work that will be carried out during the RIIO-ET2 period. SPT's LRE request is summarised in Table 14 below.

3.9 For Load Related Expenditure (LRE) projects with outputs in the RIIO-ET2 and RIIO-ET3 period, we are proposing to remove £47m from the RIIO-ET2 baseline allowance proposed by SPT because the needs cases are not justified. We propose to remove an additional £30m from baseline allowance because it can be progressed through an Uncertainty Mechanism if the need for it becomes more certain. We propose to remove a further £37m for efficiency adjustments.

3.10 For the remaining SPT LRE projects with outputs in RIIO-ET2 and RIIO-ET3 periods, we are not proposing any work volume adjustments, and we consider the associated outputs to be reasonable. We consider that the projects are well justified, and the needs cases are either linked to industry standard processes, such as the NOA, or meet credible local needs. Our view is that the optioneering and developed solutions are consistent with the needs case.

Table 14: SPT's LRE request

Scheme Type	2022 (£m)	2023 (£m)	2024 (£m)	2025 (£m)	2026 (£m)	Total (£m)
Local Enabling (Entry)	52.1	19.0	4.5	0.3	0.0	75.8
Local Enabling (Exit)	9.9	15.1	13.0	8.4	5.2	51.6
Wider Works	38.1	80.6	73.5	32.9	49.8	274.9

Scheme Type	2022 (£m)	2023 (£m)	2024 (£m)	2025 (£m)	2026 (£m)	Total (£m)
LRE (Exit - Sole Use)	13.2	15.2	12.1	11.4	5.3	57.1
LRE (Entry - Sole Use)	16.7	9.4	0.9	-	-	27.0
TSS Infrastructure	0.0	0.0	0.0	0.0	0.0	0.0
Total	129.9	139.3	103.9	52.9	60.3	486.3

3.11 We set out below first our assessment of the needs case for the relevant works, then our cost efficiency analysis for the works that we consider are justified to be the basis for setting the baseline totex allowances.

Needs case assessment

Local Enabling (Entry) and LRE (Entry sole use)

3.12 SPT's local infrastructure programme comprises 22 projects which commenced construction within RIIO-ET1 but are currently forecast to incur expenditure in RIIO-ET2 and deliver additional generation capacity or new network infrastructure capacity outputs in RIIO-ET2. The current RIIO-ET1 licence does not allow the recovery of costs for schemes.

3.13 The projects and the estimated cost of works driven by the connecting party in the RIIO-ET2 period, as specified by SPT, are set out in Tables 15 (shared use capacity) and 16 (sole use capacity) below.

Table 15: Projects for RIIO-ET2 shared use capacity

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
132kV Ewe Hill Substation Transformer	Primary deliverable: 90MVA	Installation of a new transformer at Ewe Hill Substation to accommodate additional generation. Delivery on or before 31 December 2022.	£3.58m
275KV New Cumnock Transformers	Primary deliverable: 720MVA	Uprating New Cumnock 132kV Board A by splitting it into Boards A and C and installing 2x360MVA 275/132kV transformers on Board C.	£15.67m

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
		Delivery on or before 31 December 2022.	
132kV Mark Hill to Chirmorie/Stranoch windfarm overhead line	Primary deliverable: 228MVA	Construction of 132kV OHL connection to Mark Hill 275kV substation. Delivery on or before 31 December 2022.	£6.00m
132kV Newton Stewart Uprating	Primary deliverable: 120MVA	Extension of the Newton Stewart 132/33kV substation to accommodate additional generation. Delivery on or before 31 December 2023.	£2.09m
275kV Mark Hill Transformer	Primary deliverable: 240MVA	Installation of a 275/132kV 240MVA transformer at Mark Hill substation. Delivery on or before 31 December 2023.	£7.44m
275kV Coylton Transformers	Primary deliverable: 240MVA	Replacement of two transformer units at the site. Delivery on or before 31 December 2023	£7.22m
U and AT Route Uprating	Primary deliverable: 24MVA	Uprating of overhead line route between Galashiels and Eccles 132kV substation and to replace the 132kV underground cable sections. Activities include foundation, structure and insulator repairs. Delivery date on or before 31 March 2023.	£7.08m
Gretna-Ewe Hill Overhead Line Replacement	Primary deliverable: 224MVA	Uprating of overhead line between Gretna and Ewe Hill 132kV substations using HTLS conductor. Associated cable section to be uprated also. Delivery date on or before 31 March 2023.	£5.31m
Coalburn to Douglas North Cable Uprating	Primary deliverable: 21MVA	Installation of an additional 132kV underground cable circuit in parallel with existing 132kV cable circuit between Douglas North and Coalburn 132kV substations. Delivery date on or before 31 March 2024.	£4.00m
Cumberhead Collector Substation	Primary deliverable: 120MVA	Construction of a new collector substation with a new 120MVA transformer. Delivery date on or before 31 March 2023.	£8.24m

Table 16: Projects for RIIO-ET2 sole use generation connection capacity

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
Sandy Knowe wind farm	Primary deliverable: 90MW	Construction of a new grid entry point for Sandy Knowe wind farm via a tee to a 132kV OHL to Glenglass substation. Delivery on or before 31 December 2022.	£5.21m
Chirmorie windfarm	Primary deliverable: 80MW	Construction of a new grid entry point for Chirmorie wind farm to a tee point on the line between Stranoch wind farm and Mark Hill Substation. Delivery on or before 31 December 2022.	£3.21m
South Kyle windfarm	Primary deliverable: 235MW	Construction of a new grid entry point for South Kyle wind farm and installation of a new 132kV switchbay at New Cumnock substation. Delivery on or before 31 December 2022.	£0.65m
Harting windfarm	Primary deliverable: 69.9MW	Construction of a new grid entry point for Harting Rig wind farm at the Coalburn substation via a shared asset with Kype Muir wind farm. Delivery on or before 31 December 2022.	£6.57m
Lorg wind farm	Primary deliverable: 49.5MW	Construction of a new grid entry point for Lorg wind farm, provided via a 132kV overhead line. A 132/33kV Transformer and a 33kV circuit breaker will be installed. Delivery on or before 31 December 2024.	£6.39m
Stranoch wind farm	Primary deliverable: 102MW	Construction of a new grid entry point for Stranoch wind farm. Delivery on or before 31 December 2023.	£6.33m
Dalquhandy wind farm	Primary deliverable: 45MW	Construction of a new grid entry point for Dalquhandy wind farm to the Cumberhead wind farm collector substation which tees to the 132kV cable between Galawhistle collector substation and Coalburn substation. Delivery on or before 31 December 2022.	£5.14m
Windyrig wind farm[33]	Primary deliverable: 42.8MW	Construction of a new grid entry point for Windyrig wind farm.	£0m

[33] Windy Rig energisation is expected in RIIO-ET2 but the costs are expected to be incurred in RIIO-ET1.

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
		Delivery on or before 31 December 2022.	
Hopsrig wind farm	Primary deliverable: 48MW	Construction of a new grid entry point for Hopsrig wind farm. The connection will be provided by the installation of a 33kV UG cable to a shared circuit breaker with Loganhead wind farm to Ewe Hill 132kV substation. Delivery on or before 31 December 2023.	£5.54m
Cumberhead wind farm	Primary deliverable: 50MW	Construction of a new grid entry point for Cumberhead wind farm. Delivery on or before 31 December 2022.	£2.57m
Gilston Hill wind farm[34]	Primary deliverable: 25.2MW	Construction of a new grid entry point for Gilston Hill wind farm. The connection will be provided by installing an additional 33kV circuit breaker at the Dunlaw Extension Substation 33kV busbar. From this, a 33kV underground cable will be installed to the Gilston Hill wind farm substation site where a three panel 33kV switchboard will be installed. Delivery on or before 31 December 2023.	£0m
Kennoxhead windfarm extension	Primary deliverable: 60MW	Construction of a new grid entry point for Kennoxhead wind farm extension. The connection will be provided for by installation of a 132kV metering circuit breaker at the Middlemuir wind farm Collector Substation. Delivery on or before 31 December 2022.	£0.98m

3.14 SPT's baseline plan also contains transmission works on its network to accommodate a further twelve generation projects that are in-flight and which do not have associated output delivery in RIIO-ET2 (we refer to these as crossover projects). These projects are not subject to the current RIIO-ET1 licence mechanism.

[34] Gilston Hill wind farm will have a two stage connection. A non-firm connection has been proposed for 2021. Upon completion of the shared use project to uprate the U and AT Route a firm connection will be completed for 2023. The costs will be incurred in RIIO-ET1.

3.15 The projects and the estimated cost of works driven by the connecting party in the RIIO-ET2 period, as specified by SPT, are set out in Table 17 below.

3.16 No generation connection project has been removed from the proposed baseline plan as a result of our assessment.

Table 17: Crossover generation projects - output delivery in years beyond RIIO-ET2

Project	Requested allowance (all RIIO-ET2 years, £m)
Blackhill 132kV Collector substation	£0.03m
Neart Na Gaoithe	£1.06m
Pencloe wind farm	£0.2m
Aikengall II wind farm	£0.06m
Tralorg wind farm	£0.76m
Douglas West wind farm	£0.06m
Crookedstane wind farm	£0.1m
Blackhill Substation to Glenglass Substation circuit	£0.03m
Kilmarnock South	£0.08m
Coalburn Substation - Linmill Substation No.1 cable	£2.44m
Douglas North Collector Substation	£0.06m
Windystandard II	£0.01m

Local Enabling (Exit) and LRE (Exit sole use)

3.17 The works that form SPT's baseline plan are driven by different activities and can be split into the three groups:

- investment across a range of named sites
- substation reinforcement to provide capacity to Network Rail, and
- reinforcement currently forecast to "cross over" into RIIO-ET2 to enable embedded generation in the south west of Scotland to export onto the transmission network.

3.18 SPT's Business Plan submission included the following volumes and estimated level of RIIO-ET2 cost (unadjusted for the estimated value of contributions that would be received from customers).

- Two new GSPs are proposed to meet rising demand levels at a cost of £18.4m.

- Works at seven sites where further connection is currently limited by the switchgear, and a transformer upgrade to increase thermal capacity due to additional distributed generation. The total RIIO-ET2 forecast cost for these works is £69m.
- Eight sites have been identified for reinforcement to address rising fault levels linked to the growth of embedded generation at a total estimated cost of £37m across the RIIO-ET2 period.
- Reinforcement across SPT's substations to provide capacity across two Network Rail projects. The estimated cost is £22.3m.
- Transformer upgrade to increase thermal capacity due to additional distributed generation at Redhouse GSP. The requested allowance is £2.9m.
- Completion of reinforcement works at four sites which commenced construction within RIIO-ET1. The cost of this work in the RIIO-ET2 period is forecast to be £37.5m.

3.19 In total, demand projects have been included in SPT's baseline proposal with a total RIIO-ET2 expenditure of £124m.

3.20 A list of the projects, and the allowance requested by SPT, is given in Table 18.

Table 18: Projects for RIIO-ET2 local enabling and sole use exit

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
Kendoon to Glenlee Reinforcement	Primary deliverable: 352MW	Extension of the 132kV double circuit that runs between New Cumnock substation and the Margree tee-off in South West Scotland to Glenlee substation and turning one side of the circuit into Kendoon. Delivery date on or before 31 December 2023	£27.25m
Newton Stewart GSP Reinforcement	Primary deliverable: 60MW	Installation of a second 132/33kV transformer at Newton Stewart GSP (60MVA). Delivery date on or before 31 December 2023.	£3.45m

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
275kV New Cumnock Supergrid Transformer.	Primary deliverable: 240MW	Installation of a third 275/132kV transformer (240MVA). Delivery date on or before 31 December 2022.	£6.77m
New Moffat GSP	Primary deliverable: 60MW	Delivery of additional Grid Supply Point at Moffat (Coalburn 132kV) and installation of a 132/33kV transformer (60MVA). Delivery date on or before 31 December 2022.	£3.16m
New Lesmahagow GSP	Primary deliverable: 90MW	Delivery of additional Grid Supply Point at Lesmahagow. Delivery date on or before 31 March 2025.	£15.29m
Redhouse GSP	Primary deliverable: 30MW	Upgrade in thermal capacity at Redhouse GSP. Activities include the replacement of the existing 60MVA 132/33kV transformer with a 90MVA unit. Delivery date on or before 31 December 2023.	£2.86m
Fault level mitigation works	Eight sites[35]	Replacement of transformers with new units/installation of new series reactor units. Delivery between 2022 and 2025.	£37.03
Fault level reinforcement works	Seven sites[36]	Installation of cables within the substation from the existing transformer units to the new 33kV switchboard. Delivery between 2023 and 2025.	£6.08m

35 Includes: Newarthill, Kilmarnock, Port Dundas, Westfield, Strathaven, East Kilbride and West George Street. Works at Charlotte street are also included.
36 Includes: Dunfermline, Glenniston, Gorgie, Telford Road, Haggs Road, Kaimes and Inverkeithing.

3.21 We are not proposing to amend volumes in the above generation or demand schemes through our need case assessment process. We consider that the projects are well justified, the needs cases are linked to industry standard processes and we consider the associated outputs to be reasonable.

3.22 However, we propose to reject the investments associated with facilitating connections for Network Rail (total cost estimate £22.3m) on the basis that no justification has been provided for the projects. In the event that further updated information is submitted by SPT, which is supported by robust cost and engineering evidence and is provided through the established templates, we will take this into account in our Final Determinations.

Wider works

3.23 SPT's Business Plan submission included six major boundary reinforcement projects as part of its prospective wider works programme.

3.24 The ESO has indicated that each of the following projects should proceed, and it has also provided the date on which delivery will provide the best economic value to consumers. The proposed projects are briefly summarised below.

- Hunterston East – Neilston 400kV reinforcement (NOA code HNNO): reconfiguration works to increase the fault level around Hunterston following the closure of the nuclear power station.
- East Coast Onshore 275kV Upgrade (NOA code ECU2): reprofiling works on the existing 275kV circuits that cross the B4 boundary to run at a higher temperature.
- East Coast Onshore 400kV Incremental Reinforcement (NOA code ECUP): upgrading the 275kV infrastructure on the east coast for 400kV operation.
- Denny to Wishaw 400kV reinforcement (NOA code DWNO): establish a new 400kV circuit to increase the capability of the B5 boundary
- Eccles Voltage support and real time rating system (NOA code ECVC): The primary driver for this project is to increase boundary capability on B6 in the short term[37], with the secondary driver of helping to maintain system strength following Torness closure.

[37] The specific uplift associated with ECVC is dependent upon the surrounding network conditions/configuration, this value varies from a worst-case output of 80MW to a best case output of 280MW. We have assumed 280MW for this value.

- Windyhill – Lambhill – Longannet 275kV circuit turn-in to Denny North 275kV substation (NOA code WLTI): establish new 275kV circuits to link into the existing circuits which pass by the substation.

3.25 The total project cost for these projects is estimated by SPT at £323m, of which £187m is expected to be incurred within the RIIO-ET2 period. The output measures of the works include the delivery of 1.2GW of additional boundary transfer capability across boundary B4, approximately 1GW on the B5 boundary and 0.78GW on boundary B6.

3.26 The scope of each project is summarised in Table 19 along with the total requested RIIO-ET2 allowance.

Table 19: Wider works (NOA recommended projects)

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
East Coast 275kV Upgrade (NOA code: ECU2)	Primary deliverable: B4 Boundary Capability Uplift of 800MW	Reprofiling of the existing Eastern circuits between Kintore/Tealing and Kincardine, and Tealing and Longannet via Westfield, Mossmorran and Glenrothes. Delivery date on or before 31 December 2023.	£11.86m
Hunterston East - Neilston 400kV Reinforcement (NOA code: HNNO)	Primary deliverable: B6 Boundary Capability Uplift of 500MW	Reconductor and reenergise a section of deenergised overhead line and install a third SGT at Neilston 400kV substation to establish a second Hunterston East – Neilston 400kV circuit. Delivery date on or before 31 December 2022.	£22.58m
Windyhill to Lambhill to Longannet 275kV Circuit (NOA code: WLT1)	Primary deliverable: B6 Boundary Capability Uplift of 260MW	Turn in the existing Windyhill to Lambhill to Longannet 275kV circuit into the existing Denny North 275kV substation. Delivery date on or before 31 September 2023.	£3.95m

Site	Output	Scope and delivery date	Requested allowance (all RIIO-ET2 years, £m)
Eccles Shunt Compensation and Real Time Thermal Rating Scheme (NOA code: ECVC)	Primary deliverable: B6 Boundary Capability Uplift of 280MW	Installation of two Hybrid Synchronous Compensators at Eccles 400kV substation to provide voltage support. Installation of Real Time Thermal Rating systems on the Moffat to Harker and Gretna to Harker 400kV overhead line circuits, and the 400kV cables at between Thornton Bridge cable sealing end compound and Torness substation. Delivery date on or before 31 December 2025.	£94.66m
Denny to Wishaw 400kV reinforcement (NOA code DWNO)	Primary deliverable: B5 Boundary Capability Uplift of 800MW	Establish a new 400kV circuit. Delivery date on or before 31 December 2028.	£19.16m
East Coast Onshore 400kV Incremental Reinforcement (NOA code ECUP):	Primary deliverable: B4 Boundary Capability Uplift of 400MW	Upgrading the 275kV infrastructure on the east coast for 400kV operation. Delivery date on or before 31 December 2026.	£35.13m

3.27 We propose that the first four of the above NOA projects should be included in the baseline for RIIO-ET2 as they anticipate delivering outputs within the RIIO-ET2 period.

3.28 SPT estimates the total cost of the projects to be £171m, which includes £164m of costs expected to be incurred in RIIO-ET2 timescales to deliver the boundary transfer capability increase.

3.29 For the remaining two investments that have received a positive signal through the NOA process but are expected to deliver an output in timescales beyond the RIIO-ET2 period, we agree that an element of *ex ante* funding is required in order to enable efficient procurement and to incentivise efficient timing of delivery of these projects in RIIO-ET3.

3.30 SPT estimates that the total cost of the projects to be £153m, which includes £125m of cost expected to be incurred in RIIO-ET3 timescales to deliver the boundary transfer capability increase.

3.31 The results of our cost efficiency assessment for all wider works projects are summarised later in this section.

3.32 In addition to major boundary reinforcement projects described above, the December 2019 Business Plan requested baseline funding in a further six areas associated with network reinforcement activity on its system as part of its prospective wider works programme. The investment areas include:

- a new 400kV gas insulated substation development (Branxton)
- a new circuit rating management system.
- Pre-engineering works
- minor improvements to the operation of the network in the event of a partial or complete shutdown of the electrical network ("blackstart")
- generation export management system (GEMS) for the south of Scotland
- managing harmonic distortions.

3.33 The December 2019 Business Plan requested total baseline funding of approximately £97m within the RIIO-ET2 period across all areas.

3.34 The three projects we are proposing to remove or reduce from baseline LRE are: Branxton substation, circuit ratings management, and pre-engineering works. We note that the Branxton substation proposal, with an estimated total project cost of £93m could be progressed through an alternative mechanism if the need for it becomes more certain.

3.35 Our high-level views on these proposed rejections or reductions are set out in Table 20.

Table 20: Consultation position and rationale on SPT's wider works schemes: reject/reduce

Project	Consultation position and rationale
Branxton substation - this is a new substation that will facilitate the connection of offshore wind on the East coast of Scotland and Eastern Link HVDC. The total project cost is estimated to be £93.3m, of which £30m is	**Reject:** Our view is that there is uncertainty around the timing and needs case for certain aspects of the project. There are UMs available to SPT to achieve the construction of this facility without

Project	Consultation position and rationale
expected to be incurred within the RIIO-ET2 period.	baseline funding, as and when the need arises for this project.
Circuit ratings management - would apply real time thermal ratings to individual circuits by using actual and forecast weather conditions to increase or decrease declared ratings. The total project cost is estimated to be £4.65m, of which the majority (£4.3m) is expected to be incurred within the RIIO-ET2 period. .	**Reject:** There is limited justification in terms of quantifiable output for the scheme. The scheme output appears to be the creation of a new system to manage circuit ratings however there is no quantifiable benefit to the network itself.
Pre-engineering works - relates to pre-engineering costs for a number of load-related projects. The total cost associated with these works is estimated to be £18.7m, of which the majority (£18.2m) is expected to be incurred within the T2 period.	**Reduce:** The needs case for pre-Engineering funding at the level requested has not been made. Accordingly, we have proposed reductions to the submission of £15.81m.

3.36 In addition, we have included other projects on an amended basis; baseline funding approved for the scheme as proposed, but outputs subject to PCD. Table 21 gives further detail on these projects.

Table 21: Consultation position and rationale on SPT's wider works schemes: amendments

Projects	Consultation position and rationale
Black start- provision of Point on Wave Switching at designated locations across the SPT network and increased network flexibility.	**Amend:** We have concerns over the timing and risk of deferral. We have approved the scheme for baseline funding subject to a PCD to protect against this risk. Outputs appropriate for this scheme will be managed under a PCD.
GEMS is intended to provide SPT with greater dynamic control of generation power flows on the transmission and distribution network in accordance with the commercial arrangements in place. The total cost of the system is estimated at £10m.	Amend - We note that the system has the potential to be more economical than building new infrastructure to facilitate the growing amounts of generation and offer benefits to the wider consumer. We propose a PCD for the value of SPT works to implement the proposed scheme. The proposed baseline allowance has been set using our cost assessment at £6.79m and delivery of the scheme is required by 31 December 2022.
To prevent voltage harmonics in excess of planning and compatibility limits on the 132kV network, SPT's baseline plan includes costs for the installation of harmonic filters at six different locations on its transmission system. The total estimated cost across all sites is £24m.	**Amend:** We propose a PCD for the value of SPT works at each of the sites identified in SPT's baseline plan. An efficient cost allowance of £21.26m has been proposed using our cost assessment. The PCD requires the installation of standardised harmonic filter designs at six locations on SPT's 132kV network to prevent voltage harmonics in excess of planning and

Projects	Consultation position and rationale
	compatibility limits. The harmonic filters will (as far as possible) be installed at sites in the following sequence: 1. Black Hill, 1x20MVAR 2. New Cumnock, 1x20MVAR 3. Newton Stewart, 1x20MVAR 4. Margree, 1x20MVAR 5. Moffat, 1x20MVAR 6. Linnmill, 1x20VAR. Delivery of all would be required on or before 31 December 2026. For less certain investments, we are supportive of an alternative route to fund the installation of additional harmonic equipment. This is subject to us receiving further information from the TOs on the range and type of delivered or proposed transmission solutions within each of their network areas that support the design of the volume driver.

Cost efficiency of LRE submission

3.37 We conducted our own analysis to arrive at our view of efficient unit costs for assets for the projects that have had their needs case accepted. This has resulted in a proposed unit cost efficiency reduction of £16m across the LRE projects.

3.38 One area where we have proposed a reduction across SPT's submission is that of project risk and contingency. SPT has included a range of project specific analysis combined with a blanket 9.1% uplift across the remainder of its LRE and NLRE program of work to cater for unforeseen risk; this proposed level was based on a review of historical incurred levels of risk and contingency. However, as detailed in the ET Annex[38], we consider that since the asset costs element of our efficient cost view is based on outturn costs, it already contains a component that accommodates the associated risk and contingency. Accordingly, we propose removing the submitted uplift relating to the asset costs within the LRE and NLRE proposals. Furthermore, we also propose removing any risk elements for schemes where the phasing of key risks is outside the RIIO-ET2 period. These proposals have resulted in the removal of £21m from SPT's LRE submission.

3.39 Through our review of submitted costs for projects that we are proposing to approve, we propose to reduce SPT's LRE submission by £37m. We're also proposing to reduce non-asset costs for approved projects by £14m on account of

[38] Electricity Transmission Sector Document, paragraph 3.27.

poor justification. Including the approximately £33m costs relating to schemes not approved, we have removed £114m from SPT's proposed LRE costs and allowed £372m as part of the baseline allowance.

Projects spanning price control periods

3.40 We set out in the ET Annex our proposed approach for projects spanning price control periods. SPT's baseline plan contains the following projects that span RIIO-ET1 and RIIO-ET2 that are currently expected to deliver outputs in RIIO-ET2:

- three demand connection projects
- 22 generation connection projects
- four wider works projects.

3.41 The plan also includes two wider works projects spanning RIIO-ET2 and RIIO-ET3 that are anticipated to deliver outputs in RIIO-ET3.

3.42 The projects spanning RIIO-ET1/2 are not subject to any RIIO-ET1 mechanism to derive relevant allowances. Our view of their whole efficient costs is derived from RIIO-ET2 cost assessment.

3.43 We divided the total project efficient cost for these projects to the following two parts according to the TOs' submitted profile. Our proposed funding approach is:

- First part up to and including 31 March 2021 of £74m will be funded in RIIO-ET1 subject to true-up.
- Second part from 1 April 2021 to 31 March 2026 of £421m will be part of RIIO-ET2 baseline allowances with relevant PCDs.

3.44 For the projects spanning RIIO-ET2/3 (DWNO and ECUP), our view of the efficient cost leads to a proposal of the bridging fund during RIIO-ET2 of £17.9m (DWNO), £30.4m (ECUP), and £9.7m (Blackstart provision), subject to true-up at the end of RIIO-ET2.

Proposal on LRE capex allowances

3.45 Our proposed allowances for SPT's RIIO-ET2 LRE plan are summarised in Table 22.

Table 22: Proposed allowances for SPT's RIIO-ET2 LRE plan (Gross)

Scheme Type	2022 (£m)	2023 (£m)	2024 (£m)	2025 (£m)	2026 (£m)	Total RIIO-ET2 (£m)
Local Enabling (Entry)	38.2	13.5	3.0	0.3	0.0	54.9
Local Enabling (Exit)	8.1	7.2	8.0	7.3	4.8	35.6
Wider Works	29.0	73.5	67.5	25.6	28.7	224.4
LRE (Exit - Sole Use)	6.4	9.0	9.5	10.1	5.0	39.9
LRE (Entry - Sole Use)	10.7	5.8	0.6	0.0	0.0	17.1
TSS Infrastructure	0.0	0.0	0.0	0.0	0.0	0.0
Total	**92.5**	**109.0**	**88.6**	**43.3**	**38.6**	**371.9**

High and Lower Confidence proportion in baseline totex allowance

3.46 Applying the methodology as set out in the Core Document, we assess that in our proposed baseline allowance for load related capex, £186m is high confidence and £159m is lower confidence.

BPI Stages 3 and 4

3.47 As stated in the Core Document, we used the information submitted by SPT together with our independent asset unit costs in our assessment of confidence in submitted costs for the purpose of the BPI and TIM mechanisms. Cost confidence is our ability to independently to set an efficient cost to deliver an output. It considers our ex ante view of efficient costs to deliver certain outputs, and the consequent likelihood of the company spending a different amount for the same output. Confidence therefore relates to both our confidence in the proposed solution to deliver the stated output and our ability to independently set costs, for example by using unit costs for assets. Asset costs for which we have an independent unit cost and where we have a high confidence in the justification of the proposed solution, have been classified as high confidence.

3.48 We consider that SPT provided suitable independent cost information for costs relating to the majority of civil works and other non-unit cost categories. For these costs, we propose to give an allowance that matches what has been proposed by SPT, and these costs have been classified as high confidence.

3.49 Where we do not have independent unit costs for given assets, and where we consider that SPT did not provide suitable independent cost information, these costs have been marked as lower confidence. Other non-asset costs such as those relating to risk and contingency within the BPDT are also classed as lower confidence as we cannot independently set an efficient cost for these and there are significant uncertainties associated with these cost components. SPT did not provide sufficient independent cost information to support a high confidence classification for any of these costs. This has resulted in the classification of £229m of SPT's LRE submission as lower confidence.

3.50 Of these lower confidence costs, we propose to disallow £70m as unjustified or inefficient costs that should not have been submitted. Accordingly, our consultation position is that these attract a £7m disallowance penalty under the BPI stage 3 mechanism. We also propose that there are no stage 4 rewards under this cost category.

3.51 SPT's LRE programme includes two projects - the East Coast 400kV Incremental Upgrade project and Denny to Wishaw 400kV reinforcement project - with an output delivery year in RIIO-ET3. As stated in the ET Annex, the funding associated with such schemes, will be subject to the cross period funding mechanism. Consequently, the proposed RIIO-ET2 costs and Ofgem's allowance for these schemes are not subject to the BPI and TIM mechanisms. There are no other projects in SPT LRE with an output delivery year outside RIIO-ET2.

LRE proposed allowances and PCDs

3.52 The tables below set out the efficient cost allowances for projects subject to the generation and demand revenue driver mechanism, as well as the PCDs associated with the allowed wider works projects, and their efficient costs allowances.

Table 23: LRE sole use generation allowances

Site	Sole use generation connection output	Total allowance (all RIIO-ET2 years)
Sandy Knowe	90MW	£2.13m
Chirmorie windfarm	80MW	£1.32m
South Kyle windfarm	235MW	£0.31m
Harting windfarm	69.6MW	£3.32m
Lorg wind farm	49.5MW	£3.49m
Stranoch wind farm	102MW	£3.01m

Site	Sole use generation connection output	Total allowance (all RIIO-ET2 years)
Dalquhandy wind farm	45MW	£3.33m
Windyrig wind farm	42.8MW	£0m
Hopsrig wind farm	48MW	£4.16m
Cumberhead wind farm	50MW	£1.18m
Gilston Hill wind farm	25.2MW	£0m
Kennoxhead windfarm extension	60MW	£0.49m

Table 24: LRE shared use generation allowances

Site	Shared use generation connection output	Total allowance (all RIIO-ET2 years)
132kV Ewe Hill Substation Transformer	90MVA	£2.79m
275KV New Cumnock Transformers	720MVA	£11.03m
132kV Mark Hill to Chirmorie/Stranoch windfarm overhead line	228MVA	£5.22m
132kV Newton Stewart Uprating	120MVA	£0.49m
275kV Mark Hill Transformer	240MVA	£6.66m
275kV Coylton Transformers	240MVA	£6.34m
U and AT Route Uprating	24MVA	£2.99m
Gretna-Ewe Hill Overhead Line Replacement	224MVA	£3.44m
Coalburn to Douglas North Cable Uprating	21MVA	£3.19m
Cumberhead Collector Substation	120MVA	£6.81m

Table 25: LRE demand connection allowances

Site	Demand connection output	Total allowance (all RIIO-ET2 years)
Kendoon to Glenlee Reinforcement	352MW	£22.73m
Newton Stewart GSP Reinforcement	60MW	£1.19m
275kV New Cumnock Supergrid Transformer.	240MW	£4.59m
Moffat GSP	60MW	£2.79m
Lesmahagow GSP	90MW	£11.29m
Redhouse GSP	30MW	£1.83m

Table 26: Summary of LRE PCDs and proposed allowances for amended wider works projects

Site	Total allowance (all RIIO-ET2 years)
Blackhill 132kV Collector substation	£0.03m
Neart Na Gaoithe	£1.06m
Pencloe Wind Farm	£0.2m
Aikengall II Windfarm	£0.06m
Tralorg Wind Farm	£0.76m
Douglas West Wind Farm	£0.06m
Crookedstane Wind Farm	£0.1m
Blackhill Substation to Glenglass Substation circuit	£0.03m
Kilmarnock South	£0.08m
Coalburn Substation - Linmill Substation No.1 cable	£2.44m
Douglas North Collector Substation	£0.06m
Windystandard II	£0.01m

Table 27: LRE PCD summary

Site	Output	Total allowance (all RIIO-ET2 years)
Fault level mitigations works	7 sites – see table 18 above	£28.45m
Fault level reinforcement schemes	7 sites – see table 18 above	£3.28m

Table 28: Summary of LRE PCDs and proposed allowances for wider works projects

Site	Output	Total allowance (all years)
East Coast 275kV Upgrade	B4 Boundary Capability Uplift of 800MW	£9.31m
Hunterston East - Neilston 400kV Reinforcement	B6 Boundary Capability Uplift of 500MW	£18.11m
Windyhill to Lambhill to Longannet 275kV Circuit	B6 Boundary Capability Uplift of 120MW	£0.02m
Eccles Shunt Compensation and Real Time Thermal Rating Scheme	B6 Boundary Capability Uplift of 280MW	£82.82m

Table 29: LRE PCD summary

Site	Output	Total allowance (all years)
Operability (Hunterston)	Shunt reactor (1x200MVAR)	£8.26m
Operability (Reactors)	Shunt reactors (4x60Mvar)	£7.13m
Markhill STATCOM	1x ±75 MVAR STATCOM	£9.85m
Harmonic filtering equipment	6x20MVAR harmonic filters	£21.26m
GEMS	1 smart control scheme	£6.79m
Blackstart	30 Circuit Breakers with Point on Wave Switching	£9.71m

Non-load related expenditure

3.53 SPT's NLRE capex proposal is based on a range of Asset Replacement, Refurbishment, Spares and other non-load related work. SPT's total request is £452m for work that will be completed during the RIIO-ET2 period. SPT's NLRE request is summarised below.

Table 30: SPT's NLRE request

Scheme Type	2022 (£m)	2023 (£m)	2024 (£m)	2025 (£m)	2026 (£m)	Total (£m)
Replacement	85.6	88.1	73.1	79.1	57.8	383.7
Refurbishment	15.2	17.5	17.4	8.3	7.5	65.9
Non-Load Other	2.7	0.0	0.0	0.0	0.0	2.7
Total	103.4	105.7	90.5	87.3	65.3	452.2

3.54 We set out below first our assessment of the needs case for the relevant works, then our cost efficiency analysis for the works that we consider are justified to be the basis for setting the baseline totex allowances.

Needs case assessment

3.55 SPT NLRE was presented across 66 EJPs with a total whole project proposed cost of £667.3m, which includes costs spanning outside RIIO-ET2. For a majority of these NLRE schemes, £639.4m, we are not proposing any adjustments. We consider that the projects are well justified by asset condition reports, degradation projections and engineering narratives.

3.56 We have assessed that the risk of deferral in four of SPT's NLRE schemes from the RIIO-ET2 period is high. Within these schemes, SPT requested a proposed whole project spend of £33.02m.[39]

3.57 We propose to reject SPT's proposals in relation to two of the four high risk schemes. We also propose to reduce one medium risk scheme. Our rationale for these proposed changes is given in Table 31. These represent a reduction of £27.86m from SPT's submission.

Table 31: Rationale for consultation position on SPT's NLRE schemes: reject/reduce

Project	Consultation position and rationale
400kV and 275kV Telecoms Resilience Project. This is a project designed to enhance the resilience of the existing telecoms network serving SPT's 275 and 400kV systems. £19.4m	**Reject:** The needs case for this major investment is predicated on the failure rate of existing assets and the impact of those failures on the Telecoms network resilience. Following a review of the EJP and follow up Supplementary Questions (SQs), we consider that insufficient evidence has been provided to back up the assertion that the needs case was driven by asset failure.
Torness 400kV Reactor Replacement. This is a substation asset replacement project. SPT are proposing the condition driven replacement of the asset and its associated equipment. £7.8m	**Reject:** The case for replacement of the 400kV Reactor at Torness is based on the condition information held on the Reactor, particularly the dissolved gas in oil results. While the information provided demonstrates an asset in the latter stages of its lifecycle, the condition information provided did not support intervention in RIIO-ET2. Degradation curves pointed towards monitoring in RIIO-ET2 with a review for potential RIIO-ET3 intervention.
SF_6 Repair Work. This is programme of works replacing or refurbishing assets across all voltages that are leaking SF_6 gas. £0.66m.	**Reduce:** Volumes for Circuit Breaker replacement reduced; the case for replacing some breakers has not been sufficiently justified. SPT's optioneering has not shown that the option of repair/refurbishment is impossible or uneconomic.

[39] There are £20.29m of schemes where Atkins has yet to complete its assessment, across 16 papers.

3.58 For the remaining two projects with a high risk of deferral, we are proposing to approve these to proceed with a PCD where appropriate. The rationale behind these consultation positions is detailed in Table 32. Total spend covered £5.82m.

Table 32: Rationale for consultation position of SPT NLRE schemes: approve

Project	Consultation position and rationale
Longannet Series Reactor Refurbishment. This is a substation asset refurbishment project. SPT are proposing refurbishment of this asset with works coinciding with a wider asset replacement project at the same site. £3.06m	**Approve:** On the basis of the condition needs case presented, similar to Torness, the degradation curves alone do not support intervention within the RIIO-ET2 period. We do however recognise the proposal to package up the Reactor intervention with other works at Longannet, and therefore propose to approve the scheme but to assign a PCD.
Environmental Action Plan – Building Energy Reduction Measures. SPT have proposed carrying out additional Energy Efficiency measures at sites identified for condition driven civils interventions. £2.76m	**Approve:** Justification provided within the paper is weak, but we recognise that this investment proposal forms part of the wider EAP and that progress would be reported in the Annual Environmental Report. It is due to this reporting requirement, ensuring that progress against this proposal is monitored and under-delivery recovered, that we are approving this scheme.

3.59 A number of other projects in SPT's NLR submission did not have any associated EJPs. Our consultation position is in the absence of supporting evidence to not approve the RIIO-ET2 costs associated with these projects, amounting to £78m. However, we will consider further evidence produced by SPT between now and Final Determinations.

Cost efficiency of NLRE submission

3.60 As outlined in the LRE section, our review has considered both the asset cost efficiency and risk elements of SPT's NLRE plan.

3.61 We conducted our own analysis to arrive at our view of efficient unit costs to the projects that have had their needs case accepted. This has resulted in a proposed cost efficiency reduction of £15m across the NLRE projects.

3.62 Our review of risk and contingency costs proposed by SPT results in a further £17m decrease in proposed allowances.

3.63 Following our review of the efficient costs for the projects we are proposing to approve, we propose to reduce SHET's NLRE submission by £32m. Including the approximately £99m costs relating to rejected schemes less any indirect opex costs, we have removed £132m from SPT's proposed costs and allowed £320m as part of the baseline allowance.

Proposal on NLRE capex allowances

3.64 Our proposed RIIO-ET2 NLRE allowances for SPT are set out in Table 33.

Table 33: Proposed allowances for SPT's RIIO-ET2 NLRE plan

Scheme Type	2022 (£m)	2023 (£m)	2024 (£m)	2025 (£m)	2026 (£m)	Total (£m)
Replacement	56.7	67.5	57.3	64.2	33.0	278.8
Refurbishment	8.2	12.9	11.2	4.8	4.2	41.3
Non-Load Other	0.1	0.0	0.0	0.0	0.0	0.2
Total	**64.9**	**80.4**	**68.6**	**69.1**	**37.2**	**320.3**

High and Lower Confidence proportion in baseline totex allowance

3.65 Applying the methodology as set out in the Core Document, we assess that in our proposed baseline allowance for non-load related capex, £127m is high confidence and £193m is lower confidence.

BPI Stages 3 and 4

3.66 As outlined in the LRE section, asset costs for which we have an independent unit cost and where we consider to have a high confidence in the justification of the proposed solution to deliver the stated output, have been classified as high confidence.

3.67 We consider that SPT provided suitable independent cost information for costs relating to the majority of civil works and "Other" non-unit cost categories. For these costs, we propose to give an allowance that matches what has been proposed by SPT, and these costs have been classified as high confidence costs. We have classed all asset costs for which we didn't have a suitable independent benchmark as well as Risk and Contingency costs in SPT's NLRE proposal as low confidence, as we consider that SPT did not provide sufficient independent cost

information to support a high confidence classification for these costs. This equates to the classification of £289m of SPT's NLRE submission as lower confidence.

3.68 Of this, we propose to disallow £96m as unjustified or inefficient costs. Accordingly, our consultation position is that these attract a £9.6m disallowance penalty under the BPI stage 3 mechanism. We also propose that there are no stage 4 rewards under this cost category.

NLRE PCDs

3.69 The outputs associated with this funding are tracked through the Network Asset Risk Metric (NARM) and are detailed in our NARM Annex.

Non-Operational Capex

Background

3.70 Non-Operational Capex costs comprise the following four activities:

- Property
- Small tools, equipment, plant and machinery (STEPM)
- Vehicles and transport
- Information Technology & Telecoms (IT&T)

3.71 SPT's requested an allowance of 14.9m across these categories for the RIIO-ET2 period. Our consultation position on the appropriate funding is given below. Our assessment approach to derive these allowances is detailed in Chapter 3 of the ET Annex.

Consultation position

Property

3.72 We propose to award property costs in full. This covers both the proposed EV charging points to support the transition to electrify SPT’s fleet and the proposed upgrade to the Cambuslang site.

STEPM

3.73 We also propose to award the STEPM funding request in full as it is in line with historical incurred run rates.

Vehicles and Transport

3.74 No funding request was made for Vehicles by SPT. SPT's fleet is managed through vehicle leasing and therefore no expenditure is captured through Non-Operational Capex.

IT&T

3.75 SPT proposed 16 IT&T projects for the RIIO-ET2 period. Following scrutiny by both Ofgem and its external advisors, our view is that only four of these projects are at a sufficient stage of maturity that we are able to assess and propose to approve their needs cases. However, we consider that the associated costs are not robust; in line with the RAG rating process described in the ET sector document, we propose to make adjustments to proposed allowances. SPT requested £2.0m for the following approved projects: integrating new technologies and enabling digitalisation; application product upgrade; infrastructure upgrade and Other IT for which we have allowed £1.6m. Further details on the assessment of the individual projects can be found in our consultant's report.[40]

Proposal on Non-Operational Capex

3.76 The proposed overall allowance for SPT's Non-Operational Capex is in Table 34.

Table 34: Proposed Non-Operational Capex Allowances

Cost Category	SPT Submission (£m)	Work/volume reductions (£m)	Cost reductions (£m)	Ofgem Allowance (£m)
Property	2.6			2.6
IT&T*	12.0	10.0	0.4	1.6
STEPM	0.3			0.3
Vehicles & Transport	-			-
TOTAL	**14.9**		**0.4**	**4.5**
*£10.0m of IT projects have been subjected to a UM.				

[40] Please refer to Atkin's IT&T assessment report, published as part of this consultation.

High and Lower Confidence proportion in baseline totex allowance

3.77 We assess that in our proposed baseline allowance for Non-Operational Capex, £4.5m is high confidence and there are no lower confidence costs. Non-operational capex has been subjected to expert review and/or predicated on historical RIIO-ET1 run rates. Therefore we have high confidence in the outturn costs.

BPI Stages 3 and 4

3.78 Out of the £14.9m submitted by SPT for Non-Operational Capex, £4.9m are high confidence costs and there are no lower confidence costs, as the remainder is subject to a UM.

3.79 Of this, we propose to disallow £0.4m. Accordingly, our consultation position is that there are no stage 4 rewards under this cost category.

Operational expenditure (Opex)

3.80 Operating expenditure comprises network operating costs and indirect operational expenditure. Opex comprised a total of £383m out of SPT's submission.

Network operating costs

3.81 These costs can be broken into the following sub-categories as reported in the BPDTs:

- Faults
- Inspections
- Repairs and Maintenance
- Vegetation Management
- Operational Protection Measures and IT Capex
- Legal and Safety.

Consultation position

3.82 All of the consultation positions proposed below are based on the comparison of SPT’s proposed rates with their historically incurred RIIO-ET1 rates, as described in the sector document. The exception is in the "Operation Protection Measures and IT Capex", which has been reviewed separately due to its bespoke nature.

Table 35: Proposed Network Operating Costs allowances against submission

Sub-category	SPT Submission (£m)	Work/volume reductions (£m)	Cost reductions (£m)	Ofgem allowance (£m)
Faults	19.8	0.0	7.5	12.3
Inspections	7.4	0.0	1.9	5.5
Repairs and Maintenance	48.6	0.0	6.8	41.8
Vegetation Management	2.0	0.0	0.6	1.4
Operational Protection Measures and IT Capex	11.7	0.0	0.000	11.7
Legal and Safety	20.5	0.0	7.6	12.9
Total	**110.1**	**0.0**	**-24.5**	**85.6**

3.83 Our view is that since we are basing the allowances on RIIO-ET1 incurred historical costs, all cost categories are considered to be high confidence costs.

3.84 Our consultation position is that there would be no PCDs associated with this cost category.

Indirect operational expenditure

Background

3.85 Indirect Opex consists of both Business Support Costs (BSC) and Closely Associated Indirects (CAI). The ET Annex sets out the modelling approach we adopted in deriving our proposed allowances. Our Transmission BSC model of choice is a Composite Scale Variable (CSV) regression that included a GT sector dummy variable. For CAI, we are using a model which incorporates MEAV and total capex. The outcomes of the modelling for each are set out in the tables below. Note that the IT&T elements were obtained through our subject matter expert review rather than through the econometric modelling.

Table 36: Proposed BSC Allowances

Cost Category	SPT Submission (£m)	Work/volume reductions (£m)	Cost reductions (£m)	Ofgem Allowance (£m)
Information Technology & Telecoms (IT&T)	24.8		0.1	24.7
Property management	17.1		5.7	11.4
Audit, finance, and regulation	30.4		10.2	20.2
HR and non-operational training	7.9		2.6	5.3
Insurance	8.0		0.0	8.0
Procurement	5.3		1.8	3.5
CEO and group management	10.3		3.4	6.9
TOTAL	**103.9**		**23.9**	**80.0**

3.86 SPT remains an inefficient outlier in our modelling. One interpretation could be that SPT, as the smallest network, is judged as inefficient due to the presence of fixed costs, but we note that our use of a regression model, with a significantly positive intercept term, should address this issue. The modelled cost results for SPT to further scrutiny, details of which can be found in our consultancy report. However, our sensitivity checks, including other estimators, the use of forecast data, and the inclusion of IT&T/the exclusion of insurance costs, are consistent in finding SPT's RIIO-ET2 submission to be inefficient relative to the model benchmarks.

3.87 The proposed allowances for Draft Determinations include an adjustment for Insurance. We propose to allow the Insurance costs in recognition of the disproportionate impact on MEAV for the HVDC assets, the additional risk premium these attract and the inability of our model to accurately predict these costs. These additional risk premiums have been subject to competitive tender and not provided through its captive insurer.

Table 37: Proposed CAI Allowances

Cost Category	SPT Submission (£m)	Work/volume reductions (£m)	Cost reductions (£m)	Ofgem Allowance (£m)
Operational IT & Telecoms	-			-
Project management	34.4	4.5	3.5	26.3
Network design and engineering	50.8	6.7	5.2	38.9
System mapping	1.4	0.2	0.1	1.1
Engineering management and clerical support	44.6	5.9	4.6	34.2
Network policy (including R&D)	8.2	1.1	0.8	6.3
Health, safety, and environment (HSE)				
Operational training	11.3	1.5	1.2	8.7
Store and logistics	1.9	0.3	0.2	1.5
Vehicles and transport	7.1	0.9	0.7	5.4
Market facilitation				
Network planning	9.6	1.3	1.0	7.3
TOTAL	**169.3**	**22.4**	**17.3**	**129.6**

3.88 Based on our assessment above, we propose to reduce SPT's indirect opex request by £63.6m, resulting in £209.6m as part of the baseline allowance.

3.89 We consider all of the indirect opex costs to be high confidence, as we can construct reliable forecasts independent of the companies' submissions. There are no BPI stage 4 rewards for SPT in this cost category.

3.90 There are no PCDs associated with this cost category.

Other costs

3.91 This category comprises cyber security costs, physical security costs and pension costs.

3.92 We are not publishing information on cyber costs in the public domain, due to the associated security issues. SPT will receive a report on their submission from Ofgem's cyber-security team.

3.93 SPT did not submit physical security costs for consideration in their BPDT.

3.94 Pension costs will be subject to further review once the outcome of the tri-annual pension review is completed. Costs are currently included as submitted by SPT.

Operating efficiency adjustment

3.95 We have applied our operating efficiency adjustment in line with the process set out in the ET Annex. This has resulted in a downward adjustment of SPT's totex allowance of £60.1m.

Consultation questions on Chapter 3

SPTQ11. Do you agree with our proposed allowances in relation to load related capex? If not, please outline why.

SPTQ12. Do you agree with our proposed allowances in relation to non-load related capex? If not, please outline why.

SPTQ13. Do you agree with our proposed allowances in relation to non-operational capex? If not, please outline why.

SPTQ14. Do you agree with our proposed allowances in relation to network operating costs? If not, please outline why.

SPTQ15. Do you agree with our proposed allowances in relation to indirect operational expenditure? If not, please outline why.

SPTQ16. Do you have any other comments on our proposed allowances for SPT?

4. Adjusting baseline allowances

Introduction

4.1 In this chapter we set out our consultation positions on two main areas:

- Firstly, on the SPT specific parameters for the UMs, detailed in our ET Annex, which apply to the ET sector as a whole.
- Secondly, on the bespoke UMs that SPT proposed in its Business Plan, and any bespoke UMs that we propose to apply to SPT.

Common UMs

4.2 The common UMs that we are proposing for all companies in RIIO-ET2 are set out in Table 38. Further details on these UMs are set out in the ET Annex.

Table 38: Proposed common UMs applicable to SPT

UM Name	UM type
Cross-Sector Ums	
Ofgem licence fee	Pass-through
Business rates	Pass-through
Inflation indexation of RAV and allowed return	Indexation
Cost of debt indexation	Indexation
Cost of equity indexation	Indexation
Real Price Effects	Indexation
Tax liability allowance	Re-opener
Pensions (pension scheme established deficits)	Re-opener
Physical security	Re-opener
Cyber resilience IT	Re-opener
Cyber resilience OT	Re-opener
Information Technology and Telecoms (IT&T)	Re-opener
Net Zero	Re-opener
Coordinated Adjustment Mechanism	Re-opener
Common UMs across ET Sector	
Opex escalator	Indexation
Generation and Demand connections	Volume Driver
Shunt Reactors	Volume Driver
Large Onshore Transmission Projects (LOTI)	Re-opener
Pre-construction Funding (PCF)	Re-opener
Medium Sized Investment Projects (MSIP)	Re-opener
Visual amenity in designated areas provision	Re-opener

Bespoke UMs

4.3 We invited companies to propose bespoke UMs with suitable justification in our SSMD.[41] We have considered the extent the supporting information justifies the key criteria outlined in the Business Plan Guidance (BPG):

- materiality and likelihood of the uncertainty
- how the risk is apportioned between consumers and the network company
- the operation of the mechanism
- how any drawbacks may be mitigated to deliver value for money and efficient delivery.

4.4 We also considered whether the uncertainty was regionally specific, or industry wide, to assess whether a common re-opener could be more appropriate. You can find the background and our assessment approach in our Core Document.

4.5 In this section, we provide our views on all of the bespoke outputs that SPT proposed in its Business Plan, and any that we propose to apply to SPT.

4.6 For full details on the bespoke outputs, refer to SPT's Business Plan submission.

4.7 Table 39 summarises the bespoke UM proposals that SPT submitted as part of its Business Plan and outlines our consultation position.

Table 39: SPT's bespoke UM proposals

[41] Paragraph 6.7, ET Annex.

Output name and description	Consultation position
Uncertain non-load projects: SPT proposed six non-load projects to be excluded from baseline funding and subject to an in-period re-opener.	**Accept:** See further down this chapter.
Major Boundary Upgrades Strategic Wider Works: SPT proposed to continue the RIIO-ET1 UM for assessing the need for and cost of large transmission investments.	**Accept as common UM:** See ET Annex, Large Onshore Transmission Investments (LOTI).
Generation Shared Use, Generation Sole Use and Demand Connections: SPT proposed a range of revenue drivers to allow for new generation and demand projects that arise through the RIIO-ET2 period to gain automatic allowances.	**Accept as common UM:** With adjustment to form a common volume driver design for all three TOs (See further detail in ET Annex) with company-specific parameters as below: Generation/demand - £26k/MW, £26k/MVA Overhead line - £53k/km Cable – £255k/km These values will be subject to further review.
Financial Uncertainty mechanism: SPT proposed various index, pass through and re-openers for financial uncertainties including business rates.	**Reject:** We consider that all the areas that SPT intended to cover through this UM are captured within our overall financial package. See Finance Annex.
Net zero operability challenges: SPT proposed this UM to allow it to seek funding various investments that may be required during the price control: - Unit cost allowances for Shunt Reactors, Harmonic Filters and Operational Load Management Schemes; and - Set allowances for three Synchronous Compensators (£155m total cost) to replace what has been lost due to synchronous generation closures.	**Reject:** We propose to reject this UM because while we are broadly supportive of the needs case presented by SPT, we consider that the areas SPT has identified are better covered through other UMs that we propose to include in RIIO-ET2. We are proposing a specific Shunt Reactors UM, more detail on which is provided in the ET Annex. We consider that Harmonic Filters and Operational Load Management Schemes can be considered through our MSIP re-opener, detailed further in out ET Annex. We consider that there is a clear technical needs case for some degree of intervention, which SPT's synchronous compensation proposal aims to address. At the same time we recognise network company's participation in areas outside its licence can in some cases cause distortions in markets. Therefore, we are still considering the effects of SPT's actions on the competitive process in the ESO's Stability Pathfinder process and how to ensure that there is a level playing field between SPT and other providers of stability. As such, while we propose that these investments could be considered further through our MSIP re-opener, we welcome views regarding alternative approaches, and more widely the case for SPT's synchronous compensation including effects on competition and consumer outcomes.

Legislative, policy and standards uncertainty re-opener for: **-** Planning requirements - BREXIT - Black start - Climate change and environmental uncertainty - Energy data task force - Environmental enhancements - Flood Resilience - Non-rechargeable diversions - Wayleave review adjustment - Physical Security - Cyber Security - Other Legislative, regulatory or standard changes SPT proposed re-openers covering all of the areas above.	**Further information required:** As set out in Chapter 7 of our Core Document, we do not currently consider the need for these UMs has been demonstrated. We are seeking additional information regarding a re-opener in some of these areas. There are some areas, listed below, that are already covered by other proposed re-openers: - Black Start - See ET Annex, MSIP re-opener. - Flood Resilience - See ET Annex, MSIP re-opener. - Physical Security - See Core Document, Physical Security re-opener. - Cyber Security - See Core Document, Cyber Security re-opener. - Energy Data Task Force requirements - See Core Document, chapter on Modernising Energy Data We propose to **reject** the following aspects of SPTs proposal: - Planning Requirements: There is insufficient evidence to demonstrate that planning obligations are beyond BAU activities for SPT. We expect that our baseline allowances have funded SPT sufficiently for these activities.
Compliance with relevant design and operational standards: SPT proposed a re-opener to allow for unforeseeable changes in design and standards affecting how they would intervene and invest in their network.	**Further information required:** As set out in our Core Document, we are seeking additional information regarding a re-opener in this area.
Net zero: SPT proposed a re-opener to account for changes during RIIO-2 related to the UK's Net Zero ambitions.	**Reject:** A company specific re-opener to account for changes during RIIO-2 related to the UK's Net Zero ambitions is not needed. In February, our Decarbonisation Action Plan set out our intentions to introduce a system-wide net zero re-opener in the price controls spanning the gas and electricity sectors so that these can respond flexibly to changing technological and policy developments in the path to Net Zero. Further details on our proposals to make the RIIO price controls more adaptive to deliver Net Zero are set out in our Core Document.

Accept: Uncertain non-load related projects re-opener

Uncertain non-load related projects re-opener	
Purpose	To ensure appropriate funding for six non-load related projects with a large degree of uncertainty over their timing and solutions.
Benefits	Avoids the potential of consumers to over-paying for outputs or of less efficient solutions to delivering outputs being used.

Background

4.8 In our SSMD[42], we invited network companies to submit proposals for non-load related projects or activities to be ring-fenced under funding mechanisms separate to the NARM funding mechanism.

4.9 SPT put forward six projects, listed in Table 40, which it proposed should be excluded from baseline funding and instead should be subject to a within-period re-opener.

Table 40: Projects proposed by SPT for uncertain non-load projects re-opener

Project Reference	Project Name	Indicative Cost Estimate (£m)
SPNLT2034	Westfield 275kV switchgear replacement (includes future 400kV upgrade)	17.4
SPNLT2063	Longannet 275kV series reactors refurbishment	3.1
SPNLT2099	Longannet 275kV switchgear replacement (includes future 400kV upgrade)	69.3
SPNLT20111	XH & XJ Routes 400kV Major Refurbishment	39.1
SPNLT20112	Currie-Gorgie 132kV Cable Replacement	9.6
SPNLT20113	Cable Sealing End Proactive Programme	7.9

Consultation position

Output parameter	Consultation position
Re-opener Window (year)	One re-opener window in 2023/24.
Materiality threshold/Trigger	No materiality threshold. SPT to submit needs case for approval on a case-by-case basis.
Scope	The re-opener will be limited to the projects listed above, including any revised proposals designed to deliver equivalent outcomes.
Operation	During the re-opener window, SPT may submit needs case and revised forecast costs for one or more of the projects listed in Table 40 above. Ofgem will determine any allowed costs and deliverables based on its review of SPT's submission under the re-opener.

[42] Core Document, paragraphs 6.57 to 6.61.

Rationale for consultation position

4.10 In our view, SPT submitted sufficient evidence in its EJPs for the proposed re-opener projects to demonstrate possible need for these projects during RIIO-ET2. However, we agree with SPT that there is sufficient uncertainty over their scope and timing to warrant them being excluded from baseline funding.

4.11 Five of the six projects (SPNLT20113 being the exception) are expected to deliver monetised risk benefits and could therefore be covered by the NARM Funding Adjustment and Penalty Mechanism (see NARM Annex). However, these projects are estimated to be high cost relative to the level of risk benefit outputs they will deliver. In our view, the simplicity of including these projects within scope of the NARM Funding Adjustment and Penalty Mechanism is outweighed by the potential distorting affect the high cost of the projects might have on its operation.

4.12 We therefore consider it preferable for these projects to be subject to within-period re-opener, outside the NARMs mechanism, once their need, scope and costs are more certain.

Consultation questions

SPTQ17. Do you agree with our proposals for a re-opener covering these six non-load related projects?

5. Innovation

5.1 The SSMD and the Core Document identify the criteria that we have used to assess Network Innovation Allowance (NIA) funding requests.[43] The Core Document also details our proposals for the RIIO-2 NIA Framework and the Strategic Innovation Fund.

Network Innovation Allowance

5.2 We set out below our Draft Determinations on SPT's RIIO-2 NIA funding.

Consultation position

Network Innovation Allowance	Company proposal	Consultation position
Level of NIA funding	£13.5m	£10m *Conditional on an improved industry-led reporting framework.

Rationale for consultation position

5.3 SPT's Business Plan contained a range of NIA-related proposals. It focused on the energy system transition and addressing consumer vulnerability, with initiatives corresponding to four main innovation clusters:

- network modernisation, considering the continuous evolution of the network with innovative methods for operation and maintenance
- system security and stability, considering different aspects of network security and black start
- network flexibility, considering new sources of flexibility to maintain operability of the network
- digitalisation of power networks, considering the introduction of new digital technologies and enhanced data analytics.

5.4 SPT's NIA proposals focus on initiatives that appear either high risk, or would not deliver benefits during the price control period. Based on this, we have reasonable confidence that projects that will be taken forward will require the NIA in order to progress. Over RIIO-ET2, it is for SPT to determine which projects it will undertake and, for each, it will need demonstrate why the project cannot be

[43] SSMD Core Document, paragraph 10.62; Draft Determinations Core Document, Chapter 8.

funded through baseline totex, why it needs to be funded via the NIA, and how it supports to the energy system transition or addressing consumer vulnerability. This will be part of the RIIO-2 NIA governance arrangements.

5.5 Our assessment of SPT's Business Plan against the criteria from the SSMD and Core Document in Table 41 below.

Table 41: Assessment of SPT's Business Plan against NIA criteria

SSMD /Core NIA criteria	Ofgem view
Undertaking other innovation as BAU	**Does not satisfactorily meet the criterion:** much of the discussion of innovation within BAU activities is focused on the rollout of past innovation to deliver efficiency savings, rather than clearly evidencing plans to do new innovation. We also agree with concerns from SPT's UG that the Business Plans' overarching focus on reliability and reducing risks is at odds with a strong desire to innovate within BAU activities.
Application of best practices	**Satisfactorily meets the criterion including:** evidence of the consideration of best practice via engagement with international research bodies and groups across Iberdrola which promote exchange of ideas, and application of ENTSOE framework.
Processes in place to rollout proven innovation and the evidence that this is already happening	**Satisfactorily meets the criterion including**: evidence of key learnings from RIIO-1 innovation and provides examples of rolled out projects.
Processes in place to monitor, report and track innovation spending and the evidence that this is already happening	**Does not satisfactorily meet the criterion:** consistent with our assessment of all NIA requests, we do not consider that SPT has demonstrated that it has tried and tested processes in place to monitor, report and track innovation spending and benefits.

5.6 We consider that SPT is proposing an increase of NIA funding relative to its RIIO-1 NIA funding, in which it received 0.5% of base revenue as NIA funding, roughly equivalent to £2m per year. We understand SPT has not fully utilised NIA funding during the course of RIIO-ET1, and without detailed evidence of a change in structure and delivery of innovation within the organisation, we are unconvinced that an increase in NIA funding for RIIO-ET2 is justified considering we stated in our SSMD that companies should not rely solely on additional innovation stimulus funds but should fund more innovation in RIIO-ET2 as BAU using their totex allowance.[44]

[44] SSMD Core Document, paragraph 10.16

5.7 We accordingly propose to provide SPT with £10m NIA funding for RIIO-ET2. Additionally, as detailed in the Core Document, we propose that all NIA funding is conditional on the implementation by the start of RIIO-ET2 of an improved, industry-led reporting framework. If this condition is not satisfied, our proposal is that we will not award NIA funding for RIIO-ET2.

Consultation questions

SPTQ18. Do you agree with the level of proposed NIA funding for SPT? If not, please outline why.

Appendices

Contents

Appendix 1 Consultation questions

SPTQ1. Do you agree with our proposals on the bespoke ODIs? If you disagree, please outline why.

SPTQ2. Do you agree that SPT's bespoke ODI-R would be in the interests of existing and future consumers and do you have any views on the proposed metrics to track SPT's progress in delivering the ODI-R?

SPTQ3. Do you agree with our proposal to reject SPT's bespoke ODI-F at this time?

Reject: Additional contribution to the low carbon transition ODI-F

SPTQ4. Do you agree that SPT's bespoke ODI-F should be rejected?

SPTQ5. Do you agree with our consultation position to reject the "RIIO-T2 System Outage Management Proposals to Reduce Constraint Costs"?

SPTQ6. Do you agree with our proposals on the PCDs? If not, please outline why.

SPTQ7. Do you agree that SPT's bespoke Net Zero Fund should be included in RIIO-ET2?

SPTQ8. Do you have any views on the conditions we are proposing applying to SPT's bespoke output?

SPTQ9. Do you agree with our proposals on the CVPs? If not, please outline why.

SPTQ10. Do you agree with our consultation position to accept the maximise benefit from non-operational land CVP?

SPTQ11. Do you agree with our proposed allowances in relation to load related capex? If not, please outline why.

SPTQ12. Do you agree with our proposed allowances in relation to non-load related capex? If not, please outline why.

SPTQ13. Do you agree with our proposed allowances in relation to non-operational capex? If not, please outline why.

SPTQ14. Do you agree with our proposed allowances in relation to network operating costs? If not, please outline why.

SPTQ15. Do you agree with our proposed allowances in relation to indirect operational expenditure? If not, please outline why.

SPTQ16. Do you have any other comments on our proposed allowances for SPT?

SPTQ17. Do you agree with our proposals for a re-opener covering these six non-load related projects?

SPTQ18. Do you agree with the level of proposed NIA funding for SPT? If not, please outline why.