

Decision

RIIO-3 Sector Specific Methodology Decision – ET Annex

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This is our decision on the methodologies we will apply for the electricity and gas transmission and gas distribution sectors in the RIIO-3 price control, which will run from 1 April 2026.

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Contents

1. Introduction	5
Structure of this document and associated documents	5
What is electricity transmission?	5
Challenges for RIIO-ET3	6
Delivering networks for net zero.....	9
Delivering a service that consumers value	10
Operating at an efficient cost.....	10
2. Infrastructure fit for a low-cost transition to net zero	12
Introduction	12
Background.....	12
RIIO-ET3 Load Related Expenditure package.....	17
Development funding	19
Approach under CSNP-F and wider LRE package	19
CSNP-F	25
Importance of the CSNP for the CSNP-F	26
Eligibility criteria, including materiality threshold	28
Role of the ITA	32
Delivery incentive	42
Cost assessment	47
CSNP co-ordination	49
Facilitating effective collaboration	49
Load Related Expenditure outside of the CSNP	51
LRE in RIIO-ET3.....	51
Other LRE issues raised in SSMC responses	61
Minimising networks’ impacts on the environment	64
Introduction	64
Insulation and Interruption Gas Leakage ODI-F.....	65
Visual Amenity PCD and Re-opener.....	69
Landscape Enhancement Initiative (LEI).....	71
Losses.....	71
Bespoke environmental outputs in RIIO-ET2	72
3. Secure and resilient supplies	76
RIIO-ET3 secure and resilient supplies outputs	76
Compliance with safety regulations.....	76
Network Access Policy (NAP) LO	77
RIIO-2 mechanisms not referenced in this chapter	78
4. High quality of service from regulated firms	81

Strength of the RIIO-ET3 incentive package	81
Energy Not Supplied (ENS) ODI-F	82
Retaining ODI-F or minimum obligation	82
Setting baseline targets	83
Incentive value	85
Definition of excluded or exceptional events.....	86
Monitoring individual circuit availability	87
ENS compensatory scheme (SHET only)	89
Connections incentives	89
A new approach to RIIO-ET3 connections incentives	89
SO:TO Optimisation ODI-F	92
Overview	92
Refining BAU Activities.....	93
Incentive value	94
Wider SO:TO – CSNP interactions.....	95
New Infrastructure Stakeholder Engagement Survey ODI-R.....	96
RIIO-ET3 approach.....	96
5. Cost of Service	98
Load and non-load capex	99
Non-operational capex	101
Network Operating Costs (NOCs).....	103
Indirect costs	105
Other costs	108
Market volatility and supply chain challenges	108
UMs in RIIO-ET2	110
ET Business Plan Data Templates	112
Next Steps	114

1.Introduction

Structure of this document and associated documents

- 1.1 In December 2023 we published our RIIO-3 Sector Specific Methodology Consultation (SSMC), which followed our October 2023 decision on frameworks for future systems and network regulation (this is referred to as our 'Framework Decision').
- 1.2 We are now publishing our Sector Specific Methodology Decision (SSMD) for RIIO-3, following further engagement with key stakeholders and a detailed review of the 59 responses to our SSMC. Our SSMD is comprised of an Overview Document, a Regulatory Finance annex (Finance Annex), and sector specific annex documents for gas distribution (GD), gas transmission (GT) and electricity transmission (ET).
- 1.3 The Overview Document provides detail on how we will apply the Framework Decision to areas that are relevant across the sectors. The decisions in the Overview Document apply across the GD, GT and ET network companies.
- 1.4 This document is focused on the application of the RIIO-3 framework to ET-specific issues. It sets out our sector specific views on the aspects of the RIIO-3 price control that electricity transmission network companies need to understand to be able to put together their business plans.

What is electricity transmission?

- 1.5 Great Britain's (GB) ET network transmits high-voltage electricity from where it is produced to where it is needed throughout GB.
- 1.6 Transmission assets consist of high-voltage electricity wires which extend across GB and nearby offshore waters, transporting electricity between power stations, interconnectors with external systems, large users, and interfaces with electricity distribution (ED) networks. Three Transmission Owners (TOs) own, maintain, and develop a high-voltage system within their own distinct transmission areas across GB. These are National Grid Electricity Transmission plc (NGET) for England and Wales, Scottish Power Transmission limited (SPT) for southern Scotland and Scottish Hydro Electric Transmission plc (SHET) for northern Scotland and the Scottish islands.

- 1.7 The transmission system is operated by the Electricity System Operator (ESO). The ESO is responsible for ensuring the stable and secure operation of the transmission system, from the day-to-day operation, through to managing the commercial terms of connecting to and using the network and longer-term network planning. Work is ongoing to transition the ESO to the National Energy System Operator (NESO) as an expert, impartial body with a duty to facilitate net zero while also maintaining a resilient and affordable system. The NESO will be operational in advance of the start of RIIO-ET3.

Challenges for RIIO-ET3

- 1.8 The vast majority of the GB electricity transmission grid was built in the post-war period up until the 1970s, and we now must repeat the same scale of build in roughly ten years - potentially less - to reach the goal of a decarbonised power system.
- 1.9 While we enable this transformation, we must ensure that a secure, uninterrupted supply of electricity to homes and businesses is maintained. The system must also be resilient to changing physical, financial, and cyber risks. Above all, we must ensure the transition is delivered in a way that meets consumers' interests: that they receive a high-quality service at a reasonable cost, and that new connections are facilitated as electrification of the system increases.
- 1.10 RIIO-ET2 (2021-2026) has continued the progress made during RIIO-ET1 (2013-2021) in incentivising improvements in TOs' performance, including in relation to the quality of service provided to network users and the progressive build-out of the network.
- 1.11 However, consistent with the Electricity Networks Commissioner's report on accelerating electricity transmission network build (ENC Report)¹ and subsequent publication of the Transmission Acceleration Action Plan (TAAP),² the pace of network investment delivered in recent years is insufficient to connect the required level of low-carbon generation and technologies that facilitate the net zero transition. This also means that consumers are paying more for congestion costs as a result of having to constrain generation (largely renewables) that cannot be transported by the network, as it is over capacity, to where the

¹ [Accelerating electricity transmission network deployment: Electricity Networks Commissioner's recommendations - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/90111/accelerating-electricity-transmission-network-deployment-electricity-networks-commissioner-recommendations)

² [Electricity networks: transmission acceleration action plan - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/90111/electricity-networks-transmission-acceleration-action-plan)

demand is occurring.³ For example, annual constraint costs on the network rose from £293m in 2014/15 to £1.78bn in 2022/23.⁴

- 1.12 There is strong consensus that significant new investment will be needed during RIIO-ET3, likely running into the tens of billions of pounds. The major challenge for RIIO-ET3 will be enabling TOs to deliver the step-change in volumes of new and upgraded electricity infrastructure in the right place, at the right time and efficiently, while protecting the interests of existing and future consumers. To provide confidence that this investment is delivered, we plan to create a supportive and adaptable investment regime that recognises the benefits of 'future proofing' the network but provides strong incentives around timely delivery of clearly defined outputs to keep the TOs accountable. A key part of this is to provide TOs the opportunity to request funding for Strategic Investment⁵ to add more capacity or capability into the network in an economic, low-regret manner. As part of this supportive and adaptable regime, we will also seek to use onshore competition to deliver consumer savings where possible.
- 1.13 Strategically planning this vast investment in new ET infrastructure will be central to ensuring consumer value for money. To support a more strategic approach to planning, we are working with government to introduce the NESO.⁶ The NESO will be required to develop a Strategic Spatial Energy Plan (SSEP) in coordination with the government, and this SSEP will then feed into a Centralised Strategic Network Plan (CSNP) that identifies Strategic Investment required across the GB energy transmission networks. To ensure coordination at a regional level, the NESO will also adopt the Regional Energy Strategic Planner (RESP) role.⁷ The methodology that we set out in this decision will ensure that RIIO-ET3 is sufficiently agile to fund the implementation of these plans in a manner which removes regulatory approval from the critical path for projects, such that the sector can attract significant investment at the required pace.
- 1.14 RIIO-ET2 included the Large Onshore Transmission Investment (LOTI) Re-opener to approve and fund large onshore transmission projects that arise during the

³ "Congestion" occurs when the flow of electricity on the grid directed by trading in the wholesale market exceeds the thermal limits of wires connecting demand and supply locations (such as between Scotland and England).

⁴ Data taken from ESO's website: [Monthly Balancing Services summary \(MBSS\) | ESO \(nationalgrideso.com\)](https://www.eso.co.uk/mbss)

⁵ For RIIO-ET3 we are defining Strategic Investment as proactive investment that helps to manage uncertainty for future load and non-load requirements on TOs' local networks.

⁶ [Decision on the framework for the Future System Operator's Centralised Strategic Network Plan \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/decision-on-the-framework-for-the-future-system-operator-s-centralised-strategic-network-plan)

⁷ Chapter 3, paragraph 2.3, page 10: [Decision on future of local energy institutions and governance | Ofgem](https://www.ofgem.gov.uk/decision-on-future-of-local-energy-institutions-and-governance)

course of the price control. With the April 2022 announcement of the government’s new target for 50GW of offshore wind by 2030, there was a need to offer a faster ET approvals route to projects that could facilitate this ambition. In December 2022, we published our decision to introduce the Accelerated Strategic Transmission Investment (ASTI) framework.⁸

- 1.15 Through ASTI we accelerated approval of at least £20bn of new, strategically planned ET investment. To further speed up delivery of these projects, we:
- introduced a financial delivery incentive to reward timely delivery and penalise late delivery;
 - offered the TOs early development funding to allow them to bring forward activities such as reserving factory slots and procuring land; and
 - developed a streamlined cost assessment process to speed up our assessment of the TOs' cost submissions for the ASTI projects.
- 1.16 RIIO-ET3 will progressively build on the principles of ASTI by incorporating an evolution of this mechanism into the enduring price control framework. The RIIO-ET3 mechanism will need to allow investments to be approved in line with future CSNP updates, outside of the typical five-year Business plan cycles.
- 1.17 These approaches to Strategic Investment are being complemented by a regulatory finance regime that provides confidence for investors to increase their investment in the sector, meaning that the TOs can continue to raise the required level of capital efficiently to keep costs low for consumers. The interplay between the regulatory finance regime and the wider outputs and incentive regime means that we are actively reviewing the risk/reward proposition for RIIO-ET3 (as well as under the adjacent ASTI regime) and the allocation of risk between consumers and investors. We consider that keeping the sector investable is key to delivering best value for money for consumers as well as enabling the volumes of investment to be delivered for net zero.
- 1.18 In November 2023 we and government published the Connections Action Plan (CAP),⁹ setting out a framework for the reforms needed to reduce electricity connection timescales for viable projects. These reforms are aimed at reducing the average delay a project faces in connecting to the ET network from the current level of five years back to the historical level of six months, so that most projects can connect in line with their realistic project requirements. The CAP sets

⁸ [Decision on accelerating onshore electricity transmission investment \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/consult/condocs/ast/ast122/ast122.htm)

⁹ [Ofgem and DESNZ announce joint Connections Action Plan | Ofgem](https://www.ofgem.gov.uk/consult/condocs/cap/cap123/cap123.htm)

out actions to be taken by various parties, with our actions focused on managing the connections queue and facilitating the network investments that are vital to enable connections to take place in a timely manner. RIIO-ET3 and connections reform are therefore being developed in alignment to drive the right incentives to invest in, and deliver, the network build needed to enable faster connections for projects that are ready and meet system needs.

- 1.19 In developing our approach to RIIO-ET3 we are conscious of the global supply chain and workforce constraints currently being experienced by infrastructure companies, including the TOs. Some of the factors influencing this are beyond the control of the network companies or Ofgem, but nonetheless we are shaping RIIO-ET3 to mitigate the impact on GB electricity consumers as far as possible without placing undue risk on the TOs.
- 1.20 This new ET network investment must not come at the expense of network reliability or the environment. As such we will continue to drive the TOs to deliver a high-quality service for their customers, maintain their existing assets to the required standard and minimise their impact on the environment. All of this will need to be done with a constant eye on cost efficiency.

Delivering networks for net zero

- 1.21 The energy system transition is underway and being driven by the United Kingdom (UK), Scottish and Welsh governments' legislative commitments to net zero, carbon budgets, and the policies underpinning these. The depth and speed of elements of the transition are uncertain, which translates into challenges in managing the energy system as we see changes to the location of electricity generation, increased electricity demand, a decline in natural gas demand and a role for hydrogen to support decarbonisation.
- 1.22 There will be large amounts of new and differently located sources of electricity supply to meet existing and potential new government targets to decarbonise the power sector. Electricity demand will also increase as it continues to replace other fuels (eg in vehicles and heating buildings). The changes in demand volumes and location will be driven and shaped by consumers' choices and behaviour, businesses, local communities, regional councils, and new technologies. New ET infrastructure will need to be ready to meet these evolving - and potentially accelerating - demands.
- 1.23 The TAAP recommendations have featured heavily in our considerations around designing our approach to RIIO-ET3, particularly the recommendations that relate to removing Ofgem from the critical path for project development, enabling early

supply chain engagement and using competitive tendering where it will not cause delays to project delivery.

- 1.24 RIIO-ET3 will need to ensure that the TOs can access funding to deliver on the UK's net zero ambitions, the establishment of new strategic network plans, and network plans of their own. This will need to be done in a manner which avoids delaying investment decisions, attracts significant investment into the sector at pace, appropriately considers communities affected by the infrastructure and enables effective engagement with the supply chain that will maximise value for money for consumers. Our proposals on this are in Chapter 2.

Delivering a service that consumers value

- 1.25 To derive maximum value from the investments that are needed on the ET network, the TOs will need to provide a better service to their customers. This includes higher standards of network availability, stretching targets in relation to connections processes and ambitious environmental goals for the TOs themselves.
- 1.26 The last section of Chapter 2 sets out how we intend to push the TOs to further minimise their impact on the environment, including through better performance in the reduction of their Business Carbon Footprint (BCF), the management of leakages of sulphur hexafluoride (SF6) and ensuring biodiversity recovery.
- 1.27 Security of supply is key for consumers, so RIIO-ET3 will need to ensure the ET network's ongoing resilience to factors such as climate change, asset deterioration, and physical and cyber security threats. As these are cross sectoral challenges, they are primarily addressed in Chapter 6 of the Overview Document, but Chapter 3 of this document briefly covers some ET-specific resilience factors.
- 1.28 Chapter 4 describes the key areas of focus for improving the quality of service provided by the TOs in RIIO-ET3. This will include, in the medium-term, more stretching targets around the speed at which the TOs provide connections, given the criticality of this in the drive towards net zero and the existing substantial length of the connections queue.

Operating at an efficient cost

- 1.29 It is important that the transition to net zero comes at a low cost for existing and future consumers. As described above, we are also conscious that keeping the overall, long-term cost of the transition to net zero as low as possible will require significant network investment in the short- and medium-term, and that there

may be a benefit in 'future proofing' the network through investing ahead of demand or in a way that increases optionality for future solutions.

- 1.30 We expect the TOs to deliver services and investments as efficiently as possible. In this respect, it is important to establish the cost assessment toolkit that will enable us to determine the efficient level of costs at which the TOs can carry out their activities. Together with maintaining a stable financial framework (see the Finance Annex for more detail), this is in line with the RIIO-3 outcome 'system efficiency and long-term value for money'. Chapter 5 provides an overview of the approach to cost assessment we intend to develop for RIIO-ET3.

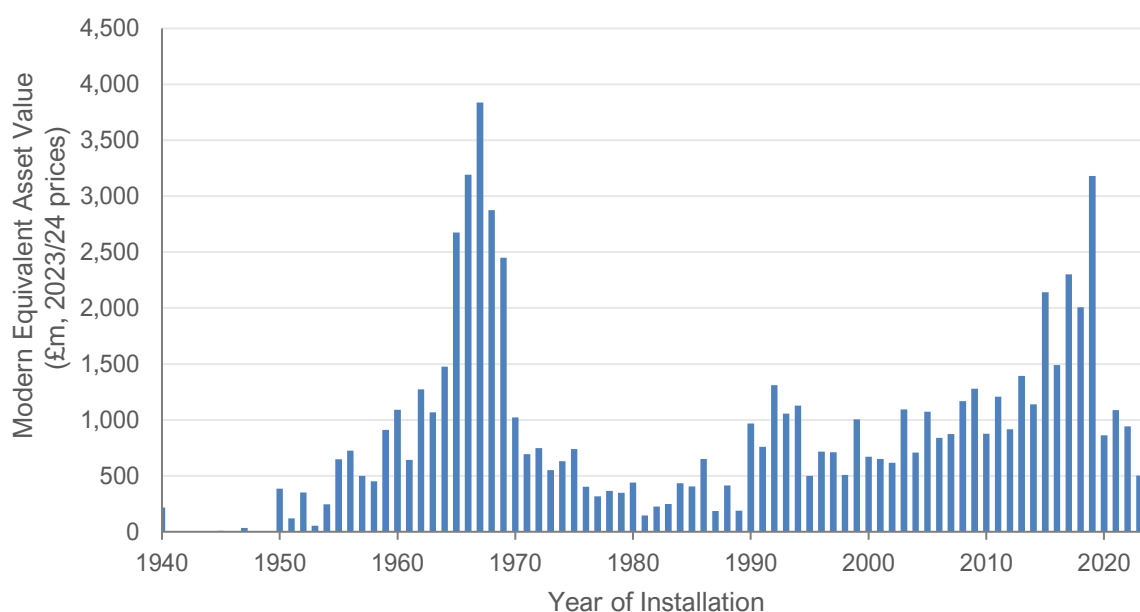
2. Infrastructure fit for a low-cost transition to net zero

Introduction

Background

2.1 The GB electricity networks will require significant reinforcement and new network build over the coming years to help facilitate the UK achieving net zero. The original GB super-grid (ie 275kV and above) was built in the post-war period up until the 1970s, as shown by the peak in Figure 1 below, and we now must repeat the same scale of build in roughly ten years, or less, to reach the goal of a decarbonised power system. To link new power sources, mainly offshore wind and nuclear, to the GB ET networks we need to invest roughly five times more in the next seven years than in the last 30 years.

Figure 1: ET asset investment, 1940-2024



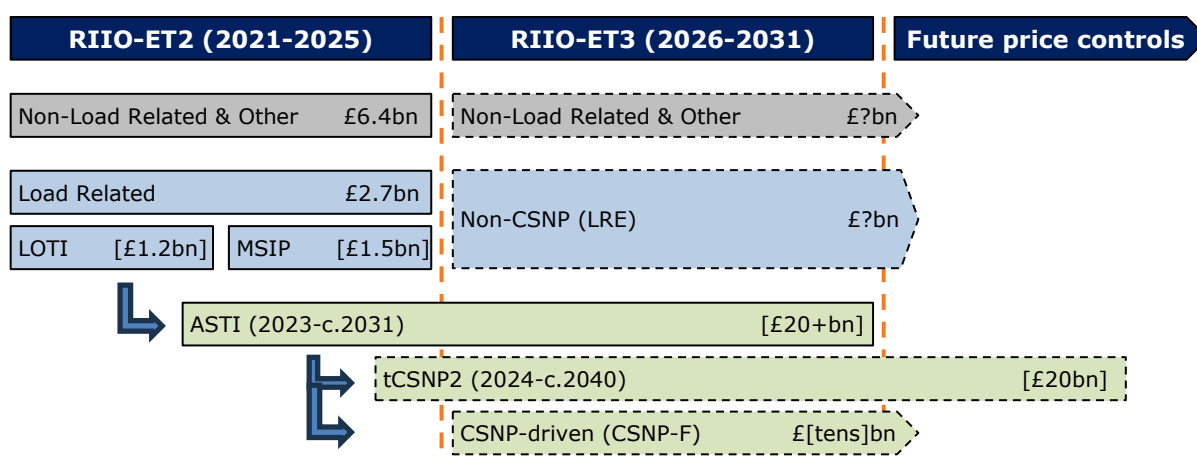
Source: CEPA (2024), RIIO-ET3: Economic Lives of Electricity Transmission Network Assets.

- 2.2 To achieve this, RIIO-ET3 will support improved coordination of investment plans, a more strategic approach to new network build, and a streamlined and consolidated regulatory process which ensures Ofgem approval is not on the 'critical path'.
- 2.3 During RIIO-ET2, we have developed bespoke funding regimes to enable the TOs to deliver the required new network investment at pace in advance of the RIIO-

ET3 price control. In RIIO-ET3 we will consolidate these mechanisms, including the flexibility to expand and adapt, to develop an enduring regime that can enable us and the TOs to react more quickly to changing requirements throughout the course of the price control.

2.4 Figure 2 summarises the timing and magnitude these mechanisms. We set out more detail on the CSNP, transitional CSNPs, and ASTI in paragraphs 2.6-2.152.22. The remainder of Chapter 2 sets out our decisions on how RIIO-ET3 will deliver this investment while ensuring delivery at pace, a high-quality and resilient service, and efficient cost.

Figure 2: Use of bespoke funding mechanisms alongside TOs’ Business plans



Numbers in square brackets are high-level indicative estimates and may change.

2.5 This chapter sets out our decisions on how RIIO-ET3 will deliver this investment while ensuring delivery at pace, a high-quality and resilient service, and efficient cost.

Centralised Strategic Network Plan (CSNP)

2.6 A crucial part of the NESO’s role, once it is established, will be the creation of the CSNP. The CSNP will act as an independent, coordinated and long-term approach to wider energy transmission network planning in GB. It will identify the key Strategic Investments needed on the transmission network through robust independent analysis.

2.7 The CSNP will help us to make quicker investment funding decisions to allow the TOs to more quickly proceed with anticipatory investment in the network – ie in preparation for local developments such as the connection of low-carbon energy sources and low-carbon demand. By creating a well-developed strategic network plan, the NESO should enable funding to be released at pace. This approach will

help to coordinate decision making, minimise investor uncertainty and keep costs down.

- 2.8 The first CSNP, due to be published in 2026, will identify a firm delivery pipeline of load related work for the ET network for the next 12 years, which will be updated annually. The first CSNP will also include a 25-year view to provide a longer-term pathway, which will be updated every three years. These plans will be iterative and cyclical, adapting to future scenarios while giving sufficient certainty for the investment needed to meet future need.
- 2.9 The load related work set out in the 12- and 25-year CSNP pipelines will inform the activities that the TOs seek to receive funding for through the price control. As the first CSNP will be published after the start of RIIO-ET3, CSNP related expenditure will not be reflected in the RIIO-ET3 baseline allowances. Funding for the TOs' load related expenditure announced in the first CSNP will therefore be provided through an uncertainty mechanism (UM). Having set out our proposals in our SSMC and reviewed stakeholder responses and discussions at working groups, paragraphs 2.60-2.215 of this chapter set out how these projects will be provided with regulatory funding.
- 2.10 We recognise that the CSNP methodology (process for identifying system needs and system investments) is being developed by the ESO/NESO and will continue to evolve prior to its first use and beyond. Ahead of our Final Determinations, we will ensure that RIIO-ET3 is able to adapt to changes to the scope or use of the CSNP.

Transitional arrangements

- 2.11 The ESO has published two "transitional" CSNPs as pre-cursors to the full CSNP: tCSNP1 in 2022 and tCSNP2 in 2024. These tCSNPs represent a move towards a more coordinated approach to planning ET network reinforcements, while we await the first CSNP in 2026.
- 2.12 In 2022 the ESO published two reports that we now refer to collectively as tCSNP1: the Holistic Network Design (HND)¹⁰ and the 2021/2022 Networks Options Assessment (NOA) 7 refresh.¹¹ The HND set out a coordinated approach to connecting 24GW of offshore wind to enable the GB ET network to meet the government's objective of 50GW of offshore wind by 2030. This was then

¹⁰ [The Pathway to 2030 Holistic Network Design | ESO \(nationalgrideso.com\)](#)

¹¹ [Network Options Assessment \(NOA\) | ESO \(nationalgrideso.com\)](#)

complemented by the 2021/22 NOA 7 refresh, which sets out options for achieving the required onshore ET network reinforcement set out in the HND.¹²

- 2.13 The tCSNP1 has given the TOs greater certainty on the need for reinforcement projects than was typically achieved through the previous annual NOA reports. Under the NOA a project that had been given a 'proceed' signal in one NOA could be indicated to pause in a subsequent NOA, whereas the needs case for projects recommended in tCSNP1 will not be revisited (ie they are not at risk of cancellation). This certainty allows the TOs to proceed with activities to prepare for these projects. To ensure that required onshore projects are delivered at pace, we introduced the ASTI mechanism that will accelerate funding for HND projects.¹³
- 2.14 In 2024 the ESO published tCSNP2, the "Beyond 2030" report.¹⁴ This is a holistic onshore and offshore ET network plan which comprises:
- the Holistic Network Design Follow-Up Exercise (HND FUE) to connect 21GW offshore wind generation from the ScotWind leasing round; and
 - wider network reinforcements determined through the NOA process to meet the requirements of the next 10-15 years to facilitate connections of new low-carbon demand and generation, paving the way to meet the target to decarbonise electricity by 2035.
- 2.15 We expect the tCSNP2 to inform a large proportion of the TOs' load related business plans for the next price control period and will work with the TOs and industry throughout 2024 on the funding arrangements for these projects. Our intention is to learn from ASTI as quickly as possible to inform our treatment of tCSNP2 projects. We will formally consult on this in 2024.

Government's Transmission Acceleration Action Plan

- 2.16 In November 2023 the government published its TAAP in response to the ENC Report on accelerating electricity transmission network build.
- 2.17 Since the publication of the ENC Report, we have worked closely with government, the ESO and industry to consider its implications for the ET sector. We are supportive of the TAAP and we will continue to support the government and the ESO to take forward their actions.

¹² [NOA 2021/22 refresh](#)

¹³ [Decision on accelerating onshore electricity transmission investment | Ofgem](#)

¹⁴ [Beyond 2030 | ESO \(nationalgrideso.com\)](#)

2.18 The actions set out in the TAAP will support the delivery of the CSNP, which will:

- confirm the needs case for new ET infrastructure;
- endorse the design solution and make an early recommendation of whether to pursue competitive tender;
- remove these tasks from the critical path; and
- provide early certainty to the network companies to allow them to focus on delivery.

2.19 This is supported by the wider TAAP recommendations on the supply chain which are broadly aligned with our decisions in this document. We highlight RIIO-ET3 interactions with the ENC Report and TAAP in Table 1.

Table 1: Interlinkages between the SSMD and government’s TAAP

Area	TAAP reference	Reference in SSMD
Acceleration of ET build	RA1: Regulatory approval process should be removed from the critical path within the end-to-end process.	CSNP-F, Chapter 2
Supporting the supply chain	SS5: The longer-term CSNP should be used to support TO engagement with the supply chain and evidence the scale of investment required over a longer time-period.	Development funding, Chapter 2
Supporting the supply chain	SC1: TOs should form long-term relationships with the supply chain and look to book slots and bulk purchase equipment when possible.	TO delivery, Chapter 2
Onshore competition	CT1: Onshore network contestability should be delivered in phases when certain criteria have been met.	Role of competition, Chapter 2
Standardisation in ET	SE1: A forum should be created between the NESO, TOs, equipment manufacturers and Ofgem to review and update equipment standards used within GB.	Standardisation, Chapter 2

Role of competition

2.20 Our SSMC set out that we will identify the first ET projects eligible for competition in 2024, announcing the launch of a competitive process as soon as possible once the relevant competition models have been sufficiently developed. To ensure that this is deliverable, throughout 2024 we are focused on developing a suitable design for a working competition model for such projects. Once developed, this model will continue to be considered for projects identified during the RIIO-ET3 period.

2.21 The NESO is due to publish its first CSNP in 2026, which falls during RIIO-ET3. In the CSNP, the NESO is expected to highlight projects that might be suitable for

delivery by a third party to be chosen through competitive tender (ie not by the relevant TO). The ESO is preparing to consult on a methodology for the NESO's development of the CSNP outputs, which will include setting out the decision-making process for determining whether a project should be considered for third-party delivery. This process will consider the potential benefit of third-party delivery as compared to delivery by the relevant TO, including the potential impact on the timeline for commissioning of the network assets.

2.22 However, we expect that a large number of projects will continue to be designed and procured by the existing TOs during RIIO-ET3.

RIIO-ET3 Load Related Expenditure package

2.23 In our SSMC we set out our definition of Load Related Expenditure (LRE) which refers to the costs of reinforcing the network to meet changing customer and consumer requirements. We recognise how critical this area of investment is for enabling the network build - and associated pace - required for net zero, and we have taken onboard extensive considerations and feedback from stakeholders.

2.24 In this chapter we outline the decisions we have made in relation to LRE, setting out how it will be funded in RIIO-ET3. Figure 3 sets out a decision tree showing which types of projects fit into various mechanisms. Some of these mechanisms are evolutions or continuations of those implemented in RIIO-ET2, such as the NOA pathfinders and the baseline allowances. However, our overall aim has been to consolidate (and learn from) the array of investment regimes that exist under RIIO-ET2 into a set of purpose-built, enduring regimes that can span multiple price controls in the future. This is important for two related reasons:

- Transmission investment horizons tend to be longer than typical five-year price control cycles¹⁵ and certainty over project approval is needed for the lifespan of a project, which also helps to give the providers of capital - both supply chain and investors - greater certainty.
- The planning cycle is becoming increasingly centralised and accelerated to enable maximum system benefits to be delivered, which means flexible in-period reopeners for project approvals become increasingly valuable to consumers.

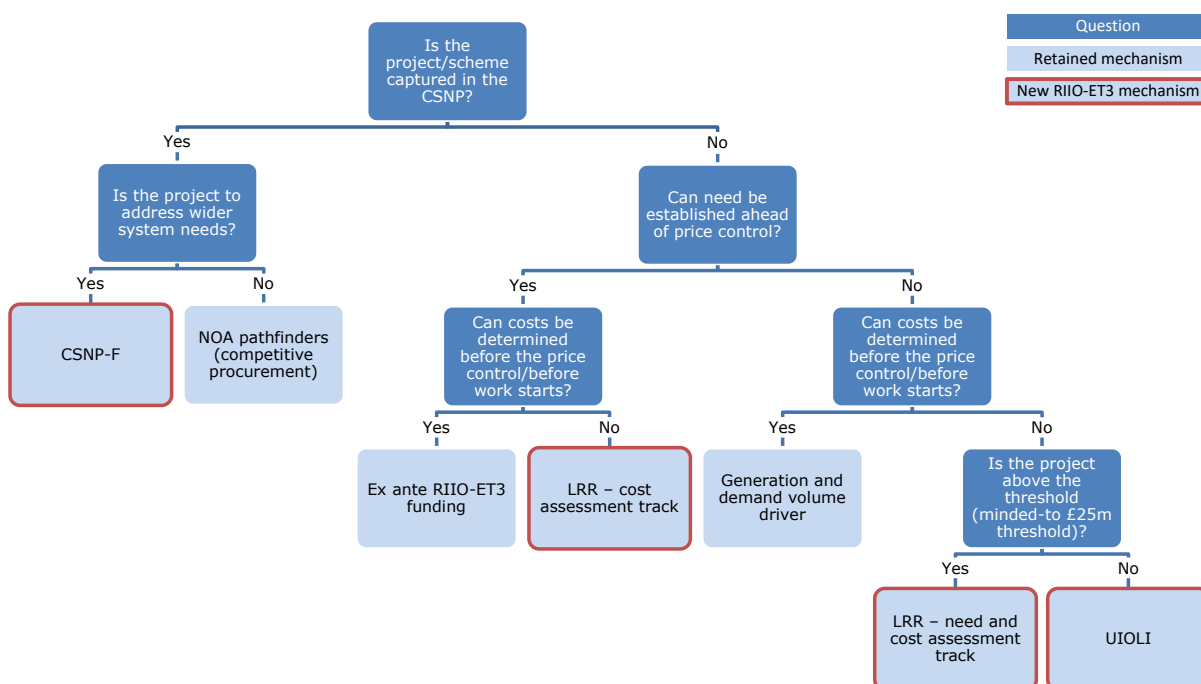
2.25 Within this context, we are introducing the following changes for RIIO-ET3:

¹⁵ Historically 12-14 years, albeit there is a policy consensus to reduce these towards 7 years following the ENC Report.

Decision –RIIO-3 Sector Specific Methodology Decision – ET Annex

- New: CSNP Funding Mechanism (CSNP-F). This will be used to fund projects that are set out in the CSNP as necessary for addressing system needs.
- New: A Load Related Re-opener (LRR). This re-opener has two tracks:
 - (1) Where the needs case is not known at the time of final Business plans, this will enable us to assess the need for and cost of additional investment requests that have not been agreed in RIIO-ET3 baseline allowances or set out in the CSNP.
 - (2) Where the needs case is well established in the TO's business plan, we can approve the need at our Final Determinations and assess optioneering and project costs later, once available, through the LRR.
- New: A use it or lose it (UIOLI) allowance to fund specific types of projects that have a financial materiality below the LRR and sit outside the scope of the Generation and Demand Volume Drivers.
- Removing the LOTI Re-opener, Medium Sized Investment Projects (MSIP) Re-opener and Shared-Drivers Price Control Deliverable (PCD), as relevant projects will now be covered by a combination of CSNP-F and the two-track LRR.
- Removing the Incremental Wider Works (IWW) Volume Driver that applies to NGET, as it is replaced by the LRR.

Figure 3: Decision tree for funding TO-delivered LRE in RIIO-ET3



Development funding

Approach under CSNP-F and wider LRE package

SSMC summary

- 2.26 Our SSMC set out our view that early project development funding (eg Pre-Construction Funding (PCF) and Early Construction Funding (ECF)) can play an important role in the development of new infrastructure.
- 2.27 PCF (used in both LOTI and ASTI), and ECF (introduced for ASTI), have been effective mechanisms for the TOs, enabling them to expedite project delivery. Our SSMC asked stakeholders for views on how PCF and ECF might be best used in RIIO-ET3.
- 2.28 In the SSMC we welcomed views on whether the operational aspects of PCF and ECF (as set out in ASTI) work effectively, whether they should be retained for future projects and whether changes to the form of cost assessment would be appropriate. This included the scope of PCF and ECF, the materiality of PCF and ECF and the cost assessment approach.
- 2.29 Activities in scope of PCF proposed in our SSMC included:
- surveys, assessments and studies that inform environmental, consenting and design feasibility decision making;
 - stakeholder engagement and consultation which will be key to informing project design and progressing through the consenting process;
 - project design and engineering development that move that project from being 'lines on a map' to a detailed project proposal that can be taken to the market for procurement; and
 - tasks associated with wayleaves and planning applications.
- 2.30 Activities in scope of ECF proposed in the SSMC included:
- market engagement activities that are key to building market interest in tendering for the project;
 - ordering equipment;
 - strategic land purchases and early procurement commitments; and
 - early enabling works.

Summary of consultation responses

- 2.31 SSMC ETQ2 asked for views on our proposed approach to setting PCF and ECF, the scope of PCF and ECF, and continuing the 'operational aspects' of PCF and

ECF introduced under ASTI. We received seven SSMC responses to ETQ2 in relation to all LRE.

- 2.32 Three respondents, including two TOs, agreed with the principles and scope of PCF and ECF as proposed. Two TOs were keen to explore expanding the scope of PCF and ECF.
- 2.33 One TO set out that the scope of PCF was too specific to overhead line work and should be updated so that it is appropriate for other projects, such as substation upgrades. This TO also suggested it was important to specifically include easements in PCF funding as they can provide greater land rights security compared with wayleaves.
- 2.34 One TO said that securing of land options should be included under ECF so that the TOs are not restricted to acquiring the freehold of land. Another TO suggested that where strategic land purchases would be required, the ECF cap would need to be revised to take into consideration the additional costs. It highlighted that land purchases made up a significant proportion of their ECF allocation when present.
- 2.35 Recognising the benefits of both PCF and ECF, one TO argued that both sets of funding should be available to all projects, regardless of project cost or its route through the price control framework. Another stakeholder, by contrast, stated that the funding available is set at a high level and therefore should be limited to specific circumstances and be subject to scrutiny from stakeholders.
- 2.36 The ESO set out that a cost pass through approach for PCF and ECF costs may be appropriate given the complexity of the projects and believe a reasonableness test is appropriate if this approach is taken forward.
- 2.37 Another respondent felt that ex ante guidance on the application of PCF and ECF, and eligibility of costs, should be sufficiently clear to avoid any disallowance risk that could have unintended consequences.
- 2.38 Two TOs suggested that the percentages for both PCF and ECF are set too low based on the current cost of PCF and ECF activities. One TO suggested that ECF be increased to 40% of estimated project cost (half of which would be automatic, half of which the TO would need additional approval for) and that PCF should be increased to 5%. A consumer group argued that the combined percentage was already too high.
- 2.39 One TO suggested it would be beneficial to have an ECF route which would be additional to any project specific provisions that works at a portfolio level to

enable the delivery of a programme of works. It suggested this would be beneficial to the current supply chain constraints.

SSMD decision and rationale

- 2.40 There will be two elements to the development funding for RIIO-ET3:
- PCF, as proposed in our SSMC; and
 - a mechanism for the advanced procurement of equipment.
- 2.41 We will not provide an ASTI-style ECF in RIIO-ET3, a change from the proposal in our SSMC. Equipment procurement, included within ECF under the ASTI framework, will instead be provided through a standalone mechanism in RIIO-ET3 as it is the area that can most benefit from this advanced funding. Early enabling works, also included within ECF under the ASTI framework, might be included within PCF for RIIO-ECF, but we are awaiting information on spending in this area under ASTI before making a final decision.
- 2.42 Further detail on the two proposed mechanisms is in the two subsections below.
- 2.43 All projects arising from the CSNP will be automatically eligible for PCF and eligible for the TO to apply for funding for the advanced procurement of equipment. This broad eligibility is to recognise the value that this funding can bring to time-critical strategic projects.
- 2.44 There will be non-CSNP projects that will also benefit from early access to funding for development activities, and so we intend to also make development funding available to other areas of LRE as appropriate.

Pre-Construction Funding

- 2.45 PCF will be set on a portfolio basis, as is the case under ASTI. We consider that this approach will be crucial to provide TOs the ability to progress the projects at pace, a view shared by all respondents to ETQ2.
- 2.46 Two TOs suggested slight changes to the scope of the PCF activities as proposed in our SSMC: one suggested adding tender activities, specification development and market engagement; and the other suggested including tasks associated with easements. One consumer group suggested that any PCF in RIIO-ET3 should be limited to specific circumstances but did not explicitly suggest a scope change.
- 2.47 We consider that, on balance, the scope of PCF as proposed in our SSMC is suitable to apply across a broad selection of activities to enable effective network development. Therefore, we retain our SSMC position and the activities in scope of PCF are:

- surveys, assessments and studies that inform environmental, consenting and design feasibility decision making;
- stakeholder engagement and consultation which will be key to informing project design and progressing through the consenting process;
- project design and engineering development that move the project to a detailed proposal that can be taken to the market for procurement; and
- tasks associated with wayleaves and planning applications.

- 2.48 We have yet to determine whether to expand PCF to include funding for early enabling works (ie site preparation costs). We are keen to better understand the extent to which the TOs are using ECF for early enabling works under ASTI, including the amount of expenditure required for these works, through further engagement with TOs ahead of draft determinations. We intend to make a decision in our Draft Determinations on whether early enabling works sit within the scope of PCF, assuming more data is available for consideration.
- 2.49 We are not determining the level of PCF yet, partially as a result of the uncertainty around whether to include early enabling works. We will make a decision on this in our Draft Determinations, once more information around the use of PCF under ASTI is available.
- 2.50 We recognise that there may be a need for in-period adjustments to PCF and will continue to work with TOs on an appropriate approach for this. This will most likely take the form of a PCF re-opener, which would offer an opportunity for TOs to request changes to their allowed PCF, ie where the costs are in excess of an automatic level of PCF, on a case-by-case basis. We will finalise the details of any such re-opener alongside our confirmation of the final scope and level of PCF.

Advanced procurement of equipment

- 2.51 We are working with TOs to introduce an equipment procurement mechanism during RIIO-ET2, to be implemented around early 2025, to help TOs to de-risk their delivery of projects relating to RIIO-ET3. The intention is to create an enduring policy mechanism that can be carried into RIIO-ET3 and future price controls and flexibly deployed if similar supply chain constraints arise in the future.
- 2.52 Our primary intended scope is to provide suitable funding for TOs to book multiple factory slots for agreed equipment classes (ie those with long lead times and/or very high demand) years in advance, even if the exact project detail or need is not yet certain. We are seeking to find an appropriate balance between

allowing TOs to transact and secure supply chain capacity in advance of our Final Determinations (which also helps to stimulate supply) and not prejudicing our ability to take appropriate decisions on those projects, both in setting RIIO-ET3 and in-period.

- 2.53 The volumes booked should reflect a high-level view of known projects, but this mechanism will not confirm the needs case for those projects. If some projects fall away the intent would be to use the booked slots for different projects that need similar equipment. This will require an initial degree of flexibility in how the slots are booked, which is then firmed up later, which is what we understand to be common practice based on our discussions with the TOs.
- 2.54 Wherever possible TOs should be standardising equipment, in line with the recommendations of the TAAP. This will aid with redeploying booked factory slots from one project to another.
- 2.55 We will develop the detailed design of the mechanism working with the TOs during 2024, including by sourcing extensive market feedback. It will likely have the following design characteristics:
- It will be relevant for booking factory slots for equipment with long lead times and/or very high demand. The exact scope of equipment covered in the remit of this mechanism is yet to be decided and we are working closely with the TOs on this.
 - It will operate on an enduring basis (exact cadence to be determined), starting in RIIO-ET2 but transitioning to RIIO-ET3 and beyond, allowing us to track the booking and usage of factory slots long term.
 - It will apply to all price control areas relevant to the equipment procured, not just CSNP-F and tCSNP2, and would be tracked across the price control to avoid double-counting and to facilitate ex post true-ups to RAV. We consider that ASTI projects are already covered by ASTI ECF.
 - Funding will be released in line with when TOs are required to make financial commitments with suppliers (eg deposits), subject to us being satisfied that economic and efficient terms have been achieved. This will be in the form of an allowance (assumed to be all or predominantly slow money) that is agreed ex ante for inclusion in the RAV, with actual spend used to true up the RAV.
- 2.56 We are also open to exploring how this mechanism can be used to facilitate entry into contracts with known contractors with an unspecified project output ('party

contracts'), as we recognise that different TOs have different contracting structures.

2.57 The mechanism is intended to be designed and implemented by early 2025 with the aim of issuing a licence consultation in late 2024. This will require TOs and supply chain market participants to move at pace so that the benefits of advanced procurement ahead of final determinations can be maximised.

2.58 We consider that the introduction of this mechanism will mean that the TOs no longer require ECF as it was described in our SSMC. This is because:

- The bulk of ECF funding can be split into three key categories: procurement, land acquisition and early enabling works.
- All procurement related activities will be covered by the new advanced procurement mechanism.
- TOs will be able to request funding for land acquisition and purchase in cost assessments as has been the case previously under Strategic Wider Works, LOTI and MSIP. We do not consider that land purchase should be within the scope of development funding on an enduring basis because TOs are best placed to manage any risk associated with the purchase (eg optimal timing) and the ability to conduct the future sale of the land largely insulates the TO from any potential risk associated with a stranded purchase.
- We are still considering the best course of action to handle activities that previously fell under the category of early enabling works. We have recently worked with the TOs to understand where the PCF and ECF assessments and processes diverge. However, our current working assumption is that much of the work considered under the heading of early enabling works can also be referred to as site preparation and that this may be a small enough category to include within the scope of PCF.
- TOs should plan on the basis that early enabling works will be operational under PCF moving forward, but we are open to alternative suggestions in the business plans on this matter.

2.59 We consider this approach is appropriate given the reflections and indicated priorities of the TOs and other stakeholders, both in consultation responses and at workshops. Given the importance of ensuring the effective and timely delivery of net zero we believe a robust procurement mechanism will enable the TOs to tackle the issues the supply chain is presenting whilst the PCF continues to

complement in offering accelerated funding to facilitate the early development of infrastructure.

CSNP-F

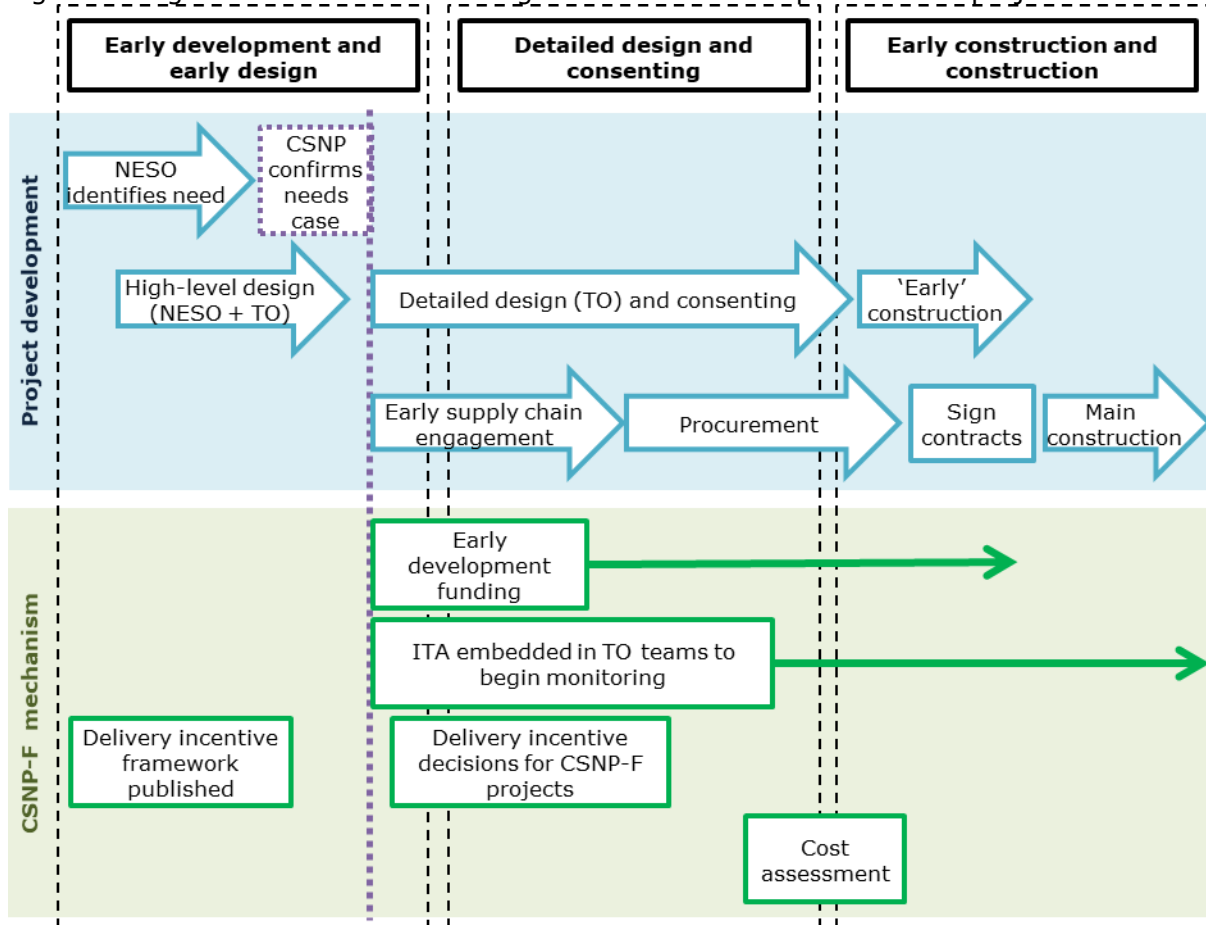
2.60 We set out in our Framework Decision and SSMC that for RIIO-ET3 we are introducing the CSNP-F to fund projects that are included in the CSNP as important for addressing system needs. This mechanism is to ensure timely funding and facilitation of CSNP-generated projects that arise during the RIIO-ET3 period. This is to recognise that the CSNP will be published after the TOs have submitted their business plans and we have set our Final Determinations for RIIO-ET3.

2.61 There are four components to this mechanism, as proposed in the SSMC:

- Early development funding: TOs can apply for funding for the costs of early development work;
- Independent Technical Adviser (ITA): appointment of an ITA to provide us with assurance that there are effective design decisions, effective procurement and delivery;
- Delivery incentives: strong delivery incentives will be implemented to facilitate timely delivery of critical infrastructure; and
- Cost assessment: a proportionate cost assessment approach that reduces the time that the TOs spend waiting for the outcome of our assessment.

2.62 Figure 4 shows how these four components will fit alongside a typical project development timeline. Early development funding is discussed earlier in Chapter 2 as it applies to LRE across other elements of RIIO-ET3, not just CSNP-F. Further detail on the remaining three areas is included in the subsections that follow.

Figure 4: High-level overview of timing of the CSNP-F components in a project timeline



Importance of the CSNP for the CSNP-F

2.63 The CSNP-F, as set out in this decision, relies on the NESO providing high-quality CSNP outputs. Below we set out our assumption of what will be included in the CSNP in five key areas. These assumptions are based on the expectations set out in our December 2023 decision¹⁶ and on subsequent discussions with the government and the ESO.

2.64 Should the CSNP not include these critical outputs, or should they not meet our assumed standard, we may need to adjust the CSNP-F.

Assumption 1: Final decision on project need

2.65 We assume that projects identified in the CSNP will be sufficiently mature to give us confidence that they should proceed. This assumes that, in developing the CSNP, the NESO has carried out any necessary governance, including with us, to ensure that there is no dispute or uncertainty over the project need and practicality.

¹⁶ [Decision on the framework for the Future System Operator’s Centralised Strategic Network Plan \(ofgem.gov.uk\)](https://www.ofgem.gov.uk)

2.66 This is required so that the TOs (or competitively appointed party) can proceed with project delivery with full confidence across a portfolio of projects. Having a few projects proceed at once will create a sufficient volume of procurement that may help the TO in securing the supply chain. It will also allow us to begin applying the CSNP-F.

Assumption 2: Recommendation of which projects will be competitively tendered

2.67 Under the Criteria Regulations,¹⁷ NESO as the delivery body for early model competition will be responsible for carrying out a competition-specific cost benefit analysis. This will inform its recommendations to us on which projects it considers should be delivered through onshore competitive tenders.

2.68 Our assumption is that this assessment process will form part of the NESO’s CSNP development, and so will be included in the CSNP outputs. It can then provide the TOs with a clear signal of how to proceed (or not to proceed) with any individual CSNP-developed project.

Assumption 3: Minimum level of project design

2.69 We assume that projects included in the CSNP outputs will be developed to a suitable minimum level of project design. It should be at a level of development that allows the TO to understand what pre-construction activities are required to be completed beyond desktop studies - eg surveys, assessment studies and planning applications. Such a design would be at least an equivalent to “Stage 2” design as set out in our RIIO-ET2 reporting guidance.¹⁸

2.70 We anticipate that the minimum level of project design will enable us to allocate PCF funding to TOs for project development up to a stage where they can apply for both development consent and full project funding, via the CSNP-F.

2.71 Meeting this minimum level of project design will make it more likely that the CSNP outputs will meet our other requirements for the CSNP-F as set out in this section.

Assumption 4: Optimal delivery date

2.72 We assume that the CSNP will include an optimal delivery date for each project, indicating when the NESO has identified that the project can (and should) be delivered to maximise consumer benefit of the project. We require this to

¹⁷ [The Electricity \(Criteria for Relevant Electricity Projects\) \(Transmission\) Regulations 2024 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

¹⁸ [RIIO-T2 Electricity Transmission Price Control –Regulatory Instructions and Guidance on Data Templates: Version 1.8 \(ofgem.gov.uk\)](https://www.ofgem.gov.uk) p.166

determine the target delivery date that will be used to decide if, and how, to apply the CSNP-F delivery incentive.

- 2.73 We may use the CSNP's optimal delivery date when determining the target delivery date, but we recognise that there may be instances in which that date cannot be applied directly in a delivery incentive. For example, we may choose an alternative date if we consider the CSNP's optimal delivery date is too early and could put the TO at a disproportionately high risk of a late delivery penalty, or if we consider that an earlier date is achievable and in consumers' best interests.
- 2.74 Our focus when determining the target delivery date will be on ensuring that, in the round, the delivery incentive is calibrated to adequately incentivise timely delivery without increasing the TOs' risk exposure such that it brings a net reduction in consumer benefit.
- 2.75 In general, if the NESO develops the CSNP projects in line with our minimum project design requirements, the optimal delivery date should be sufficiently robust and reliable. Once the CSNP methodology is finalised and the first CSNP is under development, we will have a clearer idea of whether we can use the optimal delivery date as the target delivery date for the delivery incentive or just as an input to our determining an alternative date.

Assumption 5: Indicative project cost

- 2.76 We assume that projects in the CSNP outputs will each be accompanied by an indicative view of the totex required to deliver the project. This is required as an important input to determine if, and how, we apply the CNSP-F delivery incentive, ITA involvement, and development funding.
- 2.77 While we recognise that it is normal for project cost estimates to change as a project progresses, the CSNP estimate of cost should be reliable enough that it provides a meaningful indicator of scale. This will enable us to use it as the basis to make efficient decisions. If the NESO is able to develop the CSNP projects in line with our requirements for a minimum level of project design, as set out above, this should give us confidence to apply the various elements of the CSNP-F to the project as given.

Eligibility criteria, including materiality threshold

- 2.78 In this section, we outline the eligibility criteria that will apply for the four separate elements of the CSNP-F.

SSMC summary

- 2.79 In the SSMC we proposed a materiality threshold of £100m to determine which projects from the CSNP fall under the CSNP-F. This would be a continuation of the threshold used by the LOTI re-opener in RIIO-ET2. We highlighted the potential for this approach to provide consistency between price controls and invited other considerations.
- 2.80 We proposed that our treatment of sub-£100m projects would differ in that they:
- would not be eligible for ITA involvement; and
 - would not be eligible for the CSNP-F delivery incentive.
- 2.81 We proposed that sub-£100m projects would be treated the same as projects above the threshold with regards to:
- project need being wholly determined by the CSNP;
 - eligibility for PCF and to apply for ECF; and
 - a proportionate cost assessment process.
- 2.82 We invited views on the treatment of sub-£100m projects, particularly on appropriate ways to hold the TOs to account for timely delivery in the absence of a delivery incentive.

Summary of consultation responses

- 2.83 ETQ1 invited views on the materiality threshold for the CSNP-F, and ETQ6 asked for views on how we treat CSNP projects that fall below this threshold. We received five responses to ETQ1 and seven responses to ETQ6, both including the three TOs.
- 2.84 All five respondents to ETQ1 suggested a change to the proposed approach for setting the materiality threshold. Many respondents stated that a £100m threshold is too low given the level of scrutiny and amount of work involved in the application of the CSNP-F (ie through the ITA and delivery incentive), with one TO highlighting that the £100m threshold would encompass all of its projects currently included in the tCSNP2. One TO suggested that a threshold as high as £750m could be needed to focus the ITA and delivery incentive on the few largest projects.
- 2.85 Many respondents, including the three TOs, also suggested that we include other eligibility criteria alongside, or instead of, a cost-based materiality threshold. Several respondents, including two TOs, stated that non-cost criteria could

include the level of complexity of a project and whether a project is critical for the network or achieving net zero.

- 2.86 Respondents agreed in general with our proposal to treat all TO projects the same for PCF, ECF and cost assessment. One TO suggested that projects that do not need the CSNP-F mechanisms (ie development funding, the ITA, and the delivery incentive) could be fast-tracked using a volume driver or a cost-only re-opener.

SSMD decision and rationale

- 2.87 We have decided that the CSNP-F should only be used for projects that are included in the NESO's CSNP.
- 2.88 We have decided that eligibility for each component will be assessed individually on a project-by-project basis. For instance, we may decide that a CSNP project is eligible for development funding but not the ITA. While this will require further oversight and action by us, this approach recognises stakeholder feedback that a more tailored approach to eligibility is appropriate given the diversity, size and complexity of projects likely to be identified in the CSNP.
- 2.89 At a high level, in relation to other stakeholder feedback:
- We will not seek to apply a single set of eligibility criteria across all four CSNP-F components (ie the £100m materiality threshold proposed in our SSMC), instead tailoring the approach in each component to recognise that each has its own objectives.
 - Where we do apply a cost-based materiality threshold, we agree with stakeholders that it is necessary to reassess the £100m level we proposed in our SSMC. We will determine the appropriate threshold(s) once there is a clearer idea of the project pipeline from the NESO.
 - We also agree with stakeholders that non-cost criteria can be valuable in determining eligibility, so will also include a consideration of the technical complexity or the importance of timeliness for the delivery of consumer benefit (including avoiding constraint costs) in the eligibility criteria for each component.
- 2.90 We discuss how we will apply these criteria to each of the four CSNP-F components in turn.

Development funding

- 2.91 The TO will be eligible to receive PCF for all CSNP-F projects and the TOs can apply for further development funding through the advanced equipment procurement mechanism.
- 2.92 We have decided to implement automatic eligibility for PCF to recognise the value that this funding can bring to the delivery of transmission projects, particularly given the challenging supply chain environment that the TOs are experiencing. This means that for any project given the 'go' signal in the CSNP, the relevant TO can proceed with pre-construction activities with confidence.
- 2.93 The equipment procurement mechanism design is still being determined and so we have not decided on any eligibility criteria for this yet. Any eligibility criteria would be linked to the objective of facilitating procurement of equipment that has long lead times, to avoid delays to project delivery.
- 2.94 Further detail is included in the "development funding" sub-section of this chapter.

ITA involvement

- 2.95 Only a subset of CSNP-F projects will be eligible for ITA involvement, which will focus on projects for which it can bring the most value. As an extension of this, the degree of ITA involvement will vary between projects, eg on a technologically 'simple' but time-critical project the ITA may assure delivery timelines but not project design.
- 2.96 The ITA's involvement will therefore be determined using a combination of a cost and non-cost criteria. Whether the ITA is involved in a project, and in which part(s) of the project, will depend on the cost, complexity, and whether the project is eligible for the delivery incentive. We will therefore decide eligibility on a project-by-project basis as soon as reasonably possible after the publication of the CNSP.
- 2.97 Further detail is included in the "role of the ITA" sub-section of this chapter.

Delivery incentive

- 2.98 Only a subset of CSNP-F projects will be eligible for the delivery incentive. The delivery incentive will be applied to projects for which it can bring the most value to consumers, in particular projects for which late delivery has a significant impact on the benefit consumers receive from the project (eg avoidance of constraint costs).

2.99 Eligibility for the delivery incentive will therefore be determined using a combination of a cost and non-cost criteria. Eligibility will depend on the project cost and the importance of timeliness for the delivery of consumer benefit (including the avoidance of constraint costs). We will therefore decide eligibility for the delivery incentive on a project-by-project basis as soon as reasonably possible after the publication of the CNSP.

2.100 Further detail is included in the “delivery incentive” sub-section of this chapter.

Cost assessment

2.101 We have decided to have one cost assessment methodology for all CSNP-F projects. We do not think there would be any benefit in seeking to apply different cost assessment approaches to projects based on any cost or non-cost criteria.

2.102 The cost assessment approach we are developing for the CSNP-F is focused on being proportionate. As part of having a single approach we will carry out a triage based on an initial assessment of the cost submissions, which will highlight areas that we will investigate in more detail. This will be based on the cost submission, rather than based on characteristics of the overarching project.

2.103 Further detail is included in the “cost assessment” sub-section of this chapter.

Role of the ITA

SSMC summary

2.104 Our SSMC proposed that we would introduce an ITA for CSNP projects in RIIO-ET3 to provide assurance of design decisions, procurement processes and overall project delivery.

2.105 The ITA would be an independent organisation providing assurance to us. The ITA's role should speed up decision making and remove us from the critical path of these large projects. It will also help reduce the knowledge asymmetry that exists between us and the TOs.

2.106 The SSMC invited views on our minded to positions on the ITA's scope and eligibility, and on a range of options for some key design elements of the ITA.¹⁹ We summarise these in Table 2 below.

¹⁹ Set out in SSMC ET Annex, Table 3.

Table 2: High-level options for the ITA set out in our SSMC

Design element	Options presented in our SSMC
Scope	Minded to position: Assurance of key design decisions, assurance of procurement processes, and a continued role during the construction phase for any issues that arise.
Eligibility	Minded to position: £100m threshold, in line with RIIO-ET2 LOTI.
Duty of care	Sole legal duty of care (ie is accountable to) to Ofgem. Joint legal duty of care to Ofgem and the TOs. Independent principles based.
Scope setting	TO defines the scope. Ofgem defines the ITA's scope. Ofgem defines the ITA's high-level scope, TO defines the detail.
Funding	The ITA is funded by the TO through a price control mechanism. Cost of the ITA is charged to specific investment projects. Jointly provided by Ofgem, the NESO and/or the TO.
Organisational structure	ITA as an appointed organisation. ITA as a group of individual experts. Combination of private firms and individuals.
Contract structure	ITAs contracted on a project-by-project basis. One ITA contracted for a period of time (eg 5 years). A framework of organisations/individuals.

2.107 As discussed in paragraph 2.79 we also proposed a materiality threshold of £100m (forecast totex) to determine eligibility for ITA involvement.

Summary of consultation responses

2.108 ETQ3 invited views on the design, role and scope of the ITA. We received seven responses, from the three TOs and four other stakeholders.

2.109 Separately, ETQ1 asked for views on the proposed £100m materiality threshold; we received five responses relating to eligibility for ITA involvement, from the three TOs and two other stakeholders.

Scope

2.110 All respondents were supportive of the proposed scope of the ITA and of the consumer benefits that the ITA's involvement in these areas could bring.

2.111 The three TOs and one other respondent said it is important that the use of the ITA is proportionate and useful. They emphasised that it needs to be used in a targeted manner with strong working processes to ensure that it does not cause undue delays to the projects it is involved in.

2.112 While most respondents agreed with the overall scope, one TO raised a concern with the ITA having a technical scope, suggesting that it would be unable to undertake a detailed technical evaluation of the chosen design.

2.113 There were mixed views on the involvement of the ITA in the early design phase of a project. Two of the TOs supported the decision for the ITA to be involved only once the CSNP outputs are available, while the other TO suggested that there could be value in the ITA assuring the NESO's processes in developing the CNSP outputs.

Eligibility

2.114 As highlighted in paragraphs 2.84 and 2.85, all three TOs and one other stakeholder strongly opposed the sole use of a value-based threshold for eligibility (ie the proposed £100m threshold), suggesting that an ITA should be focused on projects that have characteristics such as technological complexity, delivery complexity or a high level of consumer value provided by the project or at risk from late delivery.

2.115 Two TOs suggested that there could be different levels of ITA involvement, whereby more complex projects face higher levels of ITA assurance, rather than ITA involvement being 'all-or-nothing'.

Duty of care

2.116 Respondents were generally in favour of the option for the ITA to have a legal duty of care solely to Ofgem. One TO suggested that the ITA should have a joint duty of care on the basis that this would assure the TOs that the ITA will act in a balanced way. Others highlighted that that having a joint duty of care may create unnecessary complication and potential conflicts of interest.

Scope setting

2.117 There was general agreement that having a defined scope of ITA involvement, and agreed Terms of Reference and Ways of Working, upfront will be critical for ensuring the ITA provides effective assurance and does not impede project delivery.

2.118 Respondents were supportive of us being responsible for scope setting. One TO stated that it would be beneficial for us and the TOs to jointly set the scope to ensure it has integrity.

Funding

2.119 Most respondents considered that the simplest approach is to fund the ITA at a portfolio level through the existing price control mechanism. One TO expressed concern that there might be some perceived conflict of interest if it is paid for by

the TOs, and this TO and one other respondent suggested that the best approach would be for the ITA to be funded by Ofgem through the licence fee.

Organisational structure

- 2.120 Respondents all supported the ITA being a single appointed party.
- 2.121 Typically, stakeholders agreed with the SSMC wording of "one appointed organisation", but one TO highlighted that we should be open to consortia and other potential structures (eg Joint Ventures) to ensure that bidders can determine the most suitable formation to bring together the various skillsets required.

Contract structure

- 2.122 Most respondents supported the option for a single ITA rather than for ITAs to be appointed on a project-by-project basis or through a framework. One TO suggested that a framework (or "pool") of firms could allow us to procure each of the individual skillsets (ie design, procurement, construction) during the relevant project phase. It suggested that this would be beneficial in recognising the different skills required throughout the project lifecycle, and that an overarching management team could be in place to facilitate coordination between the various firms appointed to the framework.
- 2.123 A common concern raised was around the impact that ITA contract(s) could have on the availability of skilled organisations to provide support (eg technical advisory) to the TOs. Two TOs suggested that a framework approach would mean that multiple suppliers with the relevant skills would need to choose between being on the framework or contracting with the TOs for similar work on their side to avoid potential conflicts of interest. This could result in organisations being unwilling to join a framework as it may mean they would effectively remove themselves from the pool of suppliers for the TOs while not having any guaranteed income from ITA work.
- 2.124 Respondents, including the TOs, also raised concerns about the length of time it could take to contract an ITA, either on a project-by-project basis or through a framework. Running multiple concurrent similar procurement processes could flood the market and result in potential delays to commencement of the ITA's involvement (and thus potential delays to projects).

SSMD decision and rationale

- 2.125 In Table 3 we summarise our decisions in relation to the design of the ITA. We elaborate on each area in the subsections that follow.

Table 3: Summary of ITA design decisions set out in this subsection

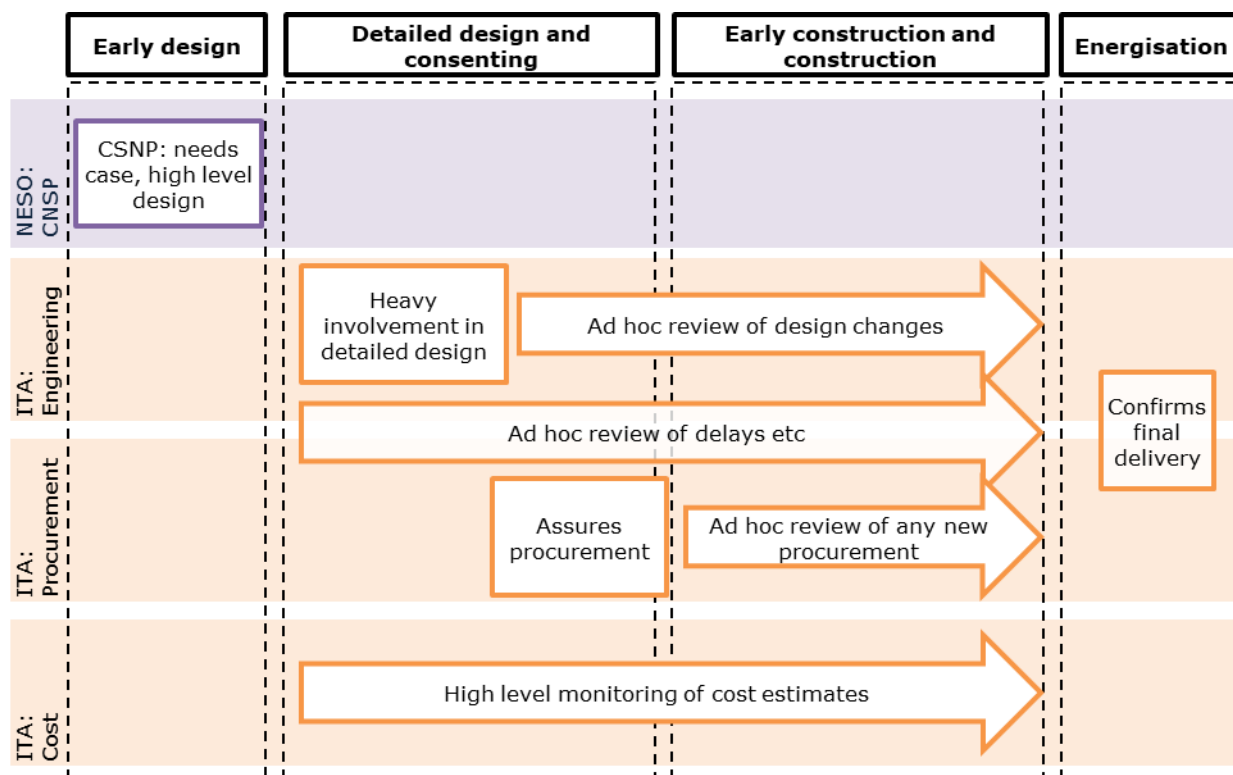
Design area	Decision
Scope	The ITA will have three key areas to its scope: engineering, procurement and cost. It will assure delivery timelines across both the engineering and procurement areas.
Eligibility	Ofgem will make the final decision on eligibility based on three main criteria: project cost, project complexity and whether there is a delivery incentive in place.
Duty of care	The ITA will have a duty of care (ie is accountable to) to Ofgem, to ensure that we are solely able to direct it to act in a way which we consider in the interests of consumers.
Scope setting	Ofgem will be responsible for setting the ITA's precise scope (Terms of Reference etc), to ensure it is in line with consumers' interests. We will rely on discussions with the TO and NESO to ensure the scope is fit for purpose and that we can develop any required detail that sits outside of our expertise.
Funding	The ITA will be funded by the TOs, with the cost recoverable through the existing price control mechanism.
Organisational structure	The ITA will be appointed as one party, which could be in the form of a single organisation, a consortium, a Joint Venture, etc.
Contract structure	We will appoint one ITA at a time. There will be one ITA appointed to be the adviser for all new eligible projects for a set period of time, to be determined (eg five years).

Scope

2.126 We have decided to retain our SSMC minded to position that the ITA's involvement in eligible projects will be required across the course of a project's lifetime, commencing after a project has been approved in the CSNP.

2.127 In Figure 5 we set out the ITA's scope across its three core areas of assurance (engineering, procurement and cost) and across the main delivery phases (detailed design, construction and post-commissioning). The NESO will carry out the early design phase and the CSNP outputs will include the high-level design.

Figure 5: ITA scope across the project (after the early design phase)



2.128 We recognise that this is a broad scope and that it will be a large task for one ITA to fulfil all three areas for all eligible projects across all three TOs. We intend to undertake industry engagement prior to formally advertising an invitation to tender. This will assist us in refining our invitation to tender. We discuss our approach to addressing this more in the subsection on "organisation and contract structure" in this chapter.

Eligibility

2.129 As set out in paragraphs 2.782.95 to 2.97, the degree of ITA involvement will vary between projects, and this involvement will be determined using a combination of a cost and non-cost criteria.

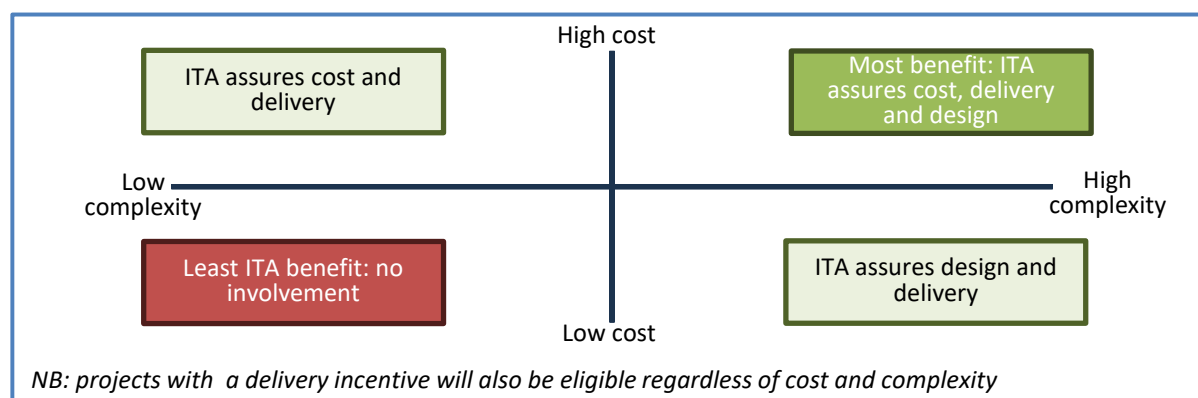
2.130 We agree with stakeholders' arguments that eligibility should not be solely cost-based, and should also consider other factors that can affect the effectiveness of the ITA's involvement. Eligibility for ITA scrutiny will depend on three criteria: project cost, project complexity and whether there is a delivery incentive. More detail is given in Table 4 below.

Table 4: Decision on ITA eligibility criteria

Criterion	Discussion
Project cost	<p>We will set the project cost threshold once there is a clearer understanding of the CSNP pipeline, such that we have a good understanding of how many projects may fall above any given threshold. It is likely that we will choose a threshold higher than the £100m in LOTI, recognising the volume of projects and recent increases in cost.</p> <p>An estimate of project cost will be an output from the CSNP.</p>
Project complexity	<p>This will be a qualitative assessment, based on an understanding of whether elements of the project (eg detailed design choices) may benefit from ITA scrutiny.</p> <p>Project complexity is not itself an explicit output from the CSNP but can be ascertained using CSNP outputs (such as the high-level design for the project).</p>
Whether there is a delivery incentive	<p>The ITA should be in place for any project eligible for the CSNP-F delivery incentive. It would be required to provide assurance of delivery timescales and to provide an independent view of any potential delay or compensation events that might require an adjustment to the delivery incentive.</p>

- 2.131 We agree with stakeholders that there are benefits to allowing the degree of ITA involvement to vary between projects. Some projects may be complex, time-critical, and high-cost - meriting the full ITA's scope - while others might only require the ITA's attention in specific areas depending on the individual project characteristics.
- 2.132 Determining ITA involvement on a project-by-project basis may take more time and effort in determining the ITA's involvement, but it will be beneficial in ensuring our use of the ITA is proportionate to the value its involvement brings to consumers.
- 2.133 We will decide whether a project will have an ITA, and the extent of the ITA involvement as soon as is reasonably possible following publication of the CSNP. Figure 6 summarises our position on ITA involvement based on the above criteria.

Figure 6: Decision on how to determine involvement of the ITA in CSNP projects



Duty of care

2.134 The ITA will have a sole duty of care to Ofgem. This means that we will be able to ensure it focuses on scrutiny of the cost and timing of projects, reflecting our priorities and primary duty to protect consumers' interests.

2.135 While we recognise that there are some potential benefits to a joint duty of care approach, including how it may contribute to the ITA building a strong working relationship with the TOs, we consider that:

- a joint duty of care to both Ofgem and the TOs may conflict if the TOs' business interests diverge from consumer interests; and
- we can achieve a strong and efficient working relationship between the ITA and the TOs through ensuring there is a clear and well-designed scope, and agreed Terms of Reference and Ways of Working.

2.136 Our SSMC also set out an option to establish the ITA as an entity which provides an independent expert view on a particular matter based on a set of pre-agreed principles. Given the type and level of assurance required from the ITA role, and the potential volume of work for the ITA to fulfil, our view is that a more formal duty of care will better align with other elements of the ITA design.

Scope setting

2.137 We will be responsible for setting the scope in discussion with NESO and the TOs. This is to align with our decision for the ITA to have a sole duty of care to us. This will mean that the ITA role reflects our aims and requirements in protecting consumers' interests.

2.138 In developing the ITA's scope, we will liaise with the NESO and the TOs for input and feedback. This will allow us to make use of the TOs' significant experience

and knowledge to ensure the scope reflects the TOs' activities. We will also engage with:

- the market as appropriate prior to going out to tender, to assist us in developing the scope that is included at the tender stage; and
- the appointed ITA when setting its detailed scope once appointed.

Funding

2.139 We have decided for the ITA to be funded by the TOs at a portfolio level, with the cost recoverable through the existing price control mechanism.

2.140 We acknowledge that one TO was concerned that this approach could result in a perceived conflict of interest for the TO, if it is paying the ITA that is in place to provide. However, we consider that concerns around perceived or actual conflicts of interest that arise from this funding approach can be resolved through well-defined Terms of Reference and Ways of Working, both of which will be set by us.

Organisational structure

2.141 We will appoint the ITA as a single entity (which could be a single organisation or a consortium, etc).

2.142 Our decision is that the ITA will be appointed as one party, which could be in the form of a single organisation, a consortium, a Joint Venture, etc.

2.143 This is preferable to the option to appoint a panel of individuals, either to act alone or to act alongside an organisation. A panel would have less capacity or ability to scale to fulfil the potential volume of work required. Individual panel members would also not have management processes in place to coordinate between us and themselves.

2.144 We recognise respondents' concerns that the ITA's scope spans several different specialisms, and it may not be possible for a single firm to cover the depth, breadth and volume of work likely to be required of the ITA. This single ITA does not need to be one firm; it can be formed of multiple firms, eg as a consortium. It is likely that an invitation to tender would invite tenderers to propose and justify their proposed structure, as well as to provide reassurance of the total capacity, management processes and knowledge sharing in place. This would ensure that the ITA can act as a single entity from both the TOs' and our perspective to deliver the required scope.

Contract structure

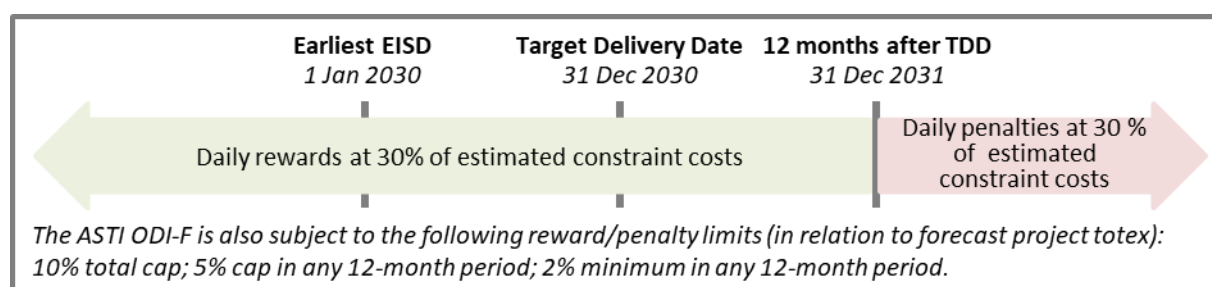
- 2.145 The appointed organisation will adopt the role for all new eligible projects that arise during a set period of time, with an established management structure and clear line of accountability.
- 2.146 The first ITA to be appointed would fulfil the role for all projects allocated during the first ITA period (eg five years). The second ITA would adopt the role for all new projects arising during the second ITA period but would not inherit the projects that were allocated to the first ITA. There would therefore be multiple concurrent ITAs with separate groups of projects.
- 2.147 We have decided that we will appoint one ITA to be the adviser for all new eligible projects for a set period of time (eg five years), which will act as the ITA for those projects until they are delivered. A different ITA may be appointed at the end of the first period, which would act as the ITA for all new projects during a set period of time.
- 2.148 This is preferable to appointing ITAs on a project-by-project basis, with or without a framework. In particular, we recognise the TOs' concerns about the impact that the new ITA appointment might have on the availability of skilled organisations available to provide similar services directly for the TOs. Our decision to appoint a single ITA seeks to minimise this impact.
- 2.149 A key benefit of having one ITA in place is that it will allow the ITA to develop a strong working relationship, efficient working processes and trust with the TOs over time. An extension of this is the possibility for knowledge building, including an important view across different projects and different TOs. While the volume of work will inevitably mean that there will be individual teams with a specific focus, we would expect any tender for the ITA to set out clear knowledge management and sharing processes that can facilitate continuous improvement across teams. We recognise that ITA counterparties may also work for TOs in the context of commercially sensitive information, so we will require that the ITAs set up robust ethical walls to ensure protection of confidential information.
- 2.150 Another benefit of appointing one single ITA is that the ITA will have a reliable pipeline of work. This will facilitate their management of resources and help with knowledge management and retention. This certainty may also make tendering for a single ITA contract more attractive than tendering for a single project or for a place on a framework; the volume of work for a single ITA is likely to justify any reduced involvement with the TOs for the period.

Delivery incentive

SSMC summary

- 2.151 In the SSMC we set out that we would seek to build on the timely delivery incentive included in the ASTI framework.
- 2.152 The ASTI ODI-F is focused on incentivising timely delivery. It involves rewards and penalties for early or late delivery against a target date, based on forecast constraint costs. There are accompanying PCDs and Licence Obligations (LOs) to ensure delivery of all outputs. Figure 7 below summarises the ASTI ODI-F.

Figure 7: Summary of the ASTI ODI-F using an example Target Delivery date of 31/12/2030



- 2.153 In our SSMC we committed to reviewing whether an evolution of the ASTI ODI-F will be sufficient in holding the TOs to account for delivery for projects falling under the CSNP-F. This included considering whether we could implement a stronger incentive in CSNP-F than in ASTI, while having regard to the impact any such change could have on the TOs' risk profile.
- 2.154 As discussed in paragraph 2.79, we also proposed a materiality threshold of £100m (forecast totex) to determine eligibility for the delivery incentive.

Summary of consultation responses

- 2.155 ETQ4 asked for views on whether to introduce a CSNP-F delivery incentive that is broadly similar to the ASTI-OFI-F, and whether CSNP-F delivery should be more strongly incentivised than under ASTI. We received seven responses, from the three TOs and four other stakeholders.
- 2.156 Separately, ETQ1 asked for views on the proposed £100m materiality threshold; we received five responses relating to eligibility for the delivery incentive, from the three TOs and two other stakeholders.
- 2.157 Respondents were supportive of using a delivery incentive to encourage timely delivery but raised comments on the detail of the design. The comments fit broadly into three areas: eligibility, target delivery date and incentive strength. We summarise the responses in each area in turn.

Eligibility

- 2.158 All respondents disagreed with the proposal for a £100m threshold as the sole criterion for determining eligibility for the delivery incentive. Two of the TOs commented that £100m is too low for a materiality threshold, especially in the context of recent cost increases.
- 2.159 Several respondents highlighted that the priority should be to focus the delivery incentive on aligning TOs' interests with those of consumers. These responses suggested that we include another threshold alongside, or instead of, a cost-based threshold. Suggestions for non-cost criteria included the level of complexity of a project, level of consumer benefit, importance of timely delivery for achieving consumer benefits, and whether a project is critical for the network or achieving net zero.

Target delivery date

- 2.160 Several respondents, including two of the TOs, commented that the CSNP-F delivery dates need to be more robust than those used in ASTI. Respondents did acknowledge the unique circumstances of ASTI which resulted in the approach taken. They suggested that the additional time we have in setting up an enduring regime may allow us to take a different approach in RIIO-ET3.
- 2.161 The TOs offered mixed views on how best to determine the target delivery date for the delivery incentive, in relation to whether to use the NESO's CSNP outputs and/or the ITA. One TO suggested that the TOs should provide target delivery dates because the CSNP outputs should not be relied upon. Another TO suggested that there could be some benefit in having the ITA providing assurance at the CSNP stage which would include determining the optimal timing of CSNP projects, while the third stated that the ITA should not be involved at CSNP stage at all to avoid duplication with the NESO's role.
- 2.162 Several respondents (including all three TOs) highlighted the need for a mechanism to adjust the target delivery date in response to external factors, or where a change can be justified in the consumer interest. One respondent suggested that the delivery incentive, including its delivery date, should be open to amendments throughout the pre-construction phase of a project, as changes to the timeline may result from changes to the design at this stage.
- 2.163 Two respondents stressed the importance of ensuring that there is assurance of the quality of the delivered asset - most importantly reliability/outages of the

asset - when confirming whether an asset can be counted as delivered in the context of the delivery incentive.

- 2.164 Two respondents argued that the incentives in ASTI were designed in the TOs' favour, to the detriment of consumers, due to the reward being applicable (and the penalty not kicking in) until 12 months after the target delivery date. They highlighted that CSNP-F, as an enduring mechanism, will not face the same challenges that ASTI faced as a unique programme, and this should offer the opportunity to rebalance the incentive.

Incentive strength

- 2.165 All three TOs disagreed with the proposed approach to strengthen the incentive compared to ASTI, supported by two other respondents who raised concerns that this would increase the risk on the TOs. Two further respondents expressed views that the ASTI ODI is heavily skewed in the TOs' favour and that any CSNP delivery incentive should be more balanced.
- 2.166 The level of risk was a particular concern. Respondents stated that strong penalties present a risk to the TOs, and that incentives even stronger than in ASTI would be disproportionate. Some stressed that strong incentives should not be applied in the current situation with a challenging supply chain. One TO raised concerns that there had been no financeability or investability assessment for the ASTI ODI-F, and that they have a concern around the financial impact of the CSNP-F delivery incentive if we take a similar approach. Another expressed that we should not combine a delivery incentive with an LO (as has been done in ASTI).
- 2.167 One respondent highlighted that, given the volume of work that could be subject to the CSNP-F mechanism, it is possible that a strong delivery incentive could mean that CSNP-F incentives are meaningfully larger than other RIIO-ET3 incentives combined, skewing the TOs' incentives in favour of delivering CSNP-F projects over other projects throughout RIIO-ET3.
- 2.168 One respondent suggested that the strength of the incentive could vary by project, differing to ASTI which applied the same incentive strength (as a percentage of project-specific constraint costs) for the entire portfolio of projects. This respondent also raised that the approach to calculating the basis of the incentive value should be updated and made more transparent than the forecast constraint costs used for the ASTI incentive.

SSMD decision and rationale

Eligibility

2.169 As highlighted in paragraphs 2.98 to 2.100, the application of a delivery incentive to any individual project will be determined by Ofgem, using a combination of cost and non-cost criteria. We agree with stakeholders' arguments that a £100m materiality threshold may be too low, and that there are benefits to considering wider non-cost factors to determine eligibility for the delivery incentive.

2.170 In our design of the delivery incentive, we are focusing on three key objectives:

- avoiding/reducing delays to delivery of infrastructure vs the CSNP, where that delay causes costs for consumers;
- ensuring that consumers are compensated for that delay through the price control; and
- ensuring that the incentives, in the round, do not create a cost for consumers in other parts of the price control (eg in the allowed WACC), that outweighs the benefit of the chosen design.

2.171 Eligibility for the delivery incentive will depend on two criteria: project cost and an indication of the importance of timely delivery for consumer outcomes.

2.172 We will set the project cost threshold once there is a clearer understanding of the CSNP pipeline, such that we have a good understanding of how many projects may fall within any given threshold. It is likely that we will choose a threshold higher than £100m, recognising the volume of projects and recent increases in cost. This estimate will be an output from the CSNP.

2.173 Determining the importance of timeliness will involve a primarily qualitative assessment, which may include quantitative elements including the NESO's estimate of consumer benefit of a project depending on the year of delivery - an output of the CSNP.

2.174 We will make the final decision on whether a project will be subject to the delivery incentive following the publication of the CSNP.

Target delivery date

2.175 We will set the delivery incentive as soon as is reasonably possible following publication of the CSNP.

2.176 A reliable and achievable target delivery date is critical to the effectiveness of a delivery incentive:

- it must be achievable, such that it does not expose the TOs to disproportionate risk but still has the potential to impact the TO's behaviour; and
- it should align with system requirements as set out in the CSNP, to encourage the TOs to deliver outcomes that are most in line with consumer interests.

2.177 An incentive package that increases a TO's risk profile substantially may contribute to their capital costs increasing, which results in higher consumer bills. We will take this into account when setting target dates and the delivery incentives, ensuring that we balance the direct consumer benefits of incentivising timely project delivery with the impact that any such incentives might have on the TOs' risk profile and consequently consumer bills.

2.178 This approach does not preclude adjustments to the target delivery date for exceptional circumstances deemed to be outside of the TOs' control. As highlighted in our decision on the ITA for the CSNP-F, the ITA will be involved in assessing the justification for any such adjustments on projects within its remit.

Incentive strength

2.179 We have not yet made a decision on the strength of the incentive for eligible CSNP-F projects. We acknowledge the concerns raised by stakeholders that our proposal to strengthen incentives (as compared to ASTI) would present a high risk to the TOs and may distort incentives in the context of the wider price control. We also maintain that timely delivery of CSNP-F projects will be important for achieving net zero and delivering consumer benefits, and strong and proportionate incentives may be required to facilitate this.

2.180 We intend to apply a daily late delivery penalty, as in ASTI. In ASTI the penalty was based on forecast annual constraint costs. The CBA approach that the NESO will follow for the CSNP has not yet been finalised. As such it is not yet possible to set out the equivalent multiplier that will be used when calculating a daily late delivery penalty for the CSNP-F delivery incentive.

2.181 We have not yet determined how the delivery reward element of the incentive will be calculated. It could be a daily reward similar to the daily late delivery penalty, as in ASTI. We may take a different approach than in ASTI, as ASTI as a portfolio had a high level of urgency that will not be present to the same extent in CSNP-F. In ASTI early delivery can be in consumers' interests by reducing constraint costs, whereas it is possible that early delivery of CSNP-F projects could bring little or no consumer benefit.

- 2.182 An alternative approach to the daily reward is to calculate a lump-sum reward that would be applicable for delivery on or before the target delivery date. This would mean that the incentive is still symmetrical, for the purposes of considering the TOs' risk profile and encouraging on-time delivery, but there would be no additional incentive to deliver a project early if that does not represent any consumer benefit. For example, an ET asset that is being built solely to serve generation or demand that is due to connect in 2035 would likely not bring any additional consumer benefit by being delivered earlier than that connection takes place.
- 2.183 As with ASTI, we intend to apply a cap on the level of reward/penalty applied in any 12-month period, and across the duration of the project, recognising the potential impact, in aggregate, of CSNP-F delivery incentives on RoRE and financeability. We are yet to determine the level of the caps. However, we recognise that the cap levels set for ASTI set a precedent that we will take into account alongside considering the RoRE and financeability impact.
- 2.184 We will also consider including a de minimis reward/penalty for projects where the standard calculation of delivery/reward results in a number that is low relative to project cost. The de minimis would be to ensure that projects for which we have deemed a delivery incentive beneficial would have a sufficiently strong incentive, related to project cost rather than constraint costs.

Cost assessment

SSMC summary

- 2.185 In the SSMC we proposed that we would implement a streamlined form of cost assessment for CSNP-F projects, whereby we proposed:
- to allow direct costs as long as there is evidence that an effective tender process has been followed; and
 - to assess indirect costs on a project-by-project basis using a streamlined benchmarking process as developed for ASTI.
- 2.186 We proposed that this approach should allow quicker cost reviews of 3-5 months, compared to the longer process under the RIIO-ET2 LOTI mechanism, and this cost assessment can run in parallel with project delivery. We proposed to use re-openers within the construction period on a project-by-project basis.
- 2.187 When assessing whether to use construction-period re-openers, we said we would consider factors such as the Totex Incentive Mechanism (TIM) rate applicable to

the TO, whether costs are too uncertain to set upfront, and whether setting ex ante costs would place an unacceptable level of risk on the TOs.

Summary of consultation responses

- 2.188 ETQ5 invited views on our proposed cost assessment approach for CSNP-F projects. We received eight responses, from the three TOs and five other stakeholders.
- 2.189 All respondents were broadly supportive of a streamlined approach like the one being applied in ASTI. Some emphasised the importance of reviewing ASTI to better inform our approach for CSNP-F.
- 2.190 Most respondents agreed with the proposed treatment of direct vs indirect costs. One TO argued against the distinction stating that there are difficulties in correctly separating out the two categories and that even robust procurement processes are not guaranteed to reveal an efficient market rate. Another TO said that there may be weaker incentives on the TOs to procure at competitive rates given our stated intention to accept direct costs as given. The other TO, which supported the broad approach to direct costs, suggested that these costs will continue to evolve and so we need to be open to these costs changing.
- 2.191 One TO raised a concern about cross-project comparisons of indirect costs as these costs may differ (eg if having to procure equipment quickly), while another expressed concern that there may be underfunding of market-tested costs if a contractor's indirect costs are above our relevant benchmark.

SSMD decision and rationale

- 2.192 We will apply the ASTI approach, or a modest evolution of it as appropriate, to CSNP-F projects. This includes the separate approaches to direct costs and indirect costs and the use of a standardised submission format from the TOs.
- 2.193 This new approach to cost assessment is currently being implemented for ASTI. We will continue to monitor the ASTI approach to cost assessment to ascertain whether modifications should be made before it is applied to CSNP-F.

Direct costs

- 2.194 Direct costs will be set by the market. Where there is evidence that an effective tender process has been followed, competitive tension has been maximised and unit rates are broadly consistent with our expectations, we will consider that these costs represent a market level of efficiency.
- 2.195 We will have additional oversight of direct costs through implementing open book transparency of direct costs tendered by the supply chain, enabling fast decision

making. Additional oversight from the ITA will be key in helping provide us with confidence in this area for specific projects.

Indirect costs

2.196 Indirect costs can be more easily benchmarked across projects, and we need greater assurance that there is no double counting across different projects. We will therefore continue to assess these on a project-by-project basis.

2.197 If there is a material discrepancy between our expectations and the tendered indirect costs, we expect the TOs to justify and demonstrate why the tendered level represents value for money for consumers and we may require them to further negotiate on price.

CSNP co-ordination

Facilitating effective collaboration

2.198 In this section we discuss how we plan to encourage close co-ordination between the TOs and the NESO.

2.199 To facilitate the development of the CSNP to a high standard, including as a valuable input to the CSNP-F, it will be important that the TOs and NESO co-ordinate efficiently and effectively throughout the development of the CSNP.

2.200 The TOs will be required to bring insight based on their understanding of their assets, costs, and constraints, and the NESO will need to bring these insights together to inform their development of a system-wide plan.

SSMC summary

2.201 In our SSMC we discussed the importance of close co-ordination between the TOs and the NESO in the development of the CNSP options. We highlighted Chapter 2 of our Decision on the Future System Operator's Centralised Strategic Network Plan,²⁰ which sets out the requirement on the NESO to provide guidance on what information is needed from TOs for the development of CSNP options.

2.202 The development of high-level options is a critical process for the development of the CSNP. We therefore expect the TOs to play a critical role in supporting the NESO. We invited views on how to best facilitate collaboration between the NESO and the TOs to ensure the timely delivery of network investment.

²⁰ [Decision on the framework for the Future System Operator's Centralised Strategic Network Plan | Ofgem](#)

Summary of consultation responses

- 2.203 ETQ29 invited views on the most effective way to ensure collaboration between the NESO and the TOs on developing the CSNP options, and ETQ30 asked whether stakeholders agree with us introducing a LO on the TOs to engage effectively with the NESO's process. We received five responses, including from the three TOs and the ESO.
- 2.204 All respondents agreed that there is value in enhanced collaboration between TOs and the NESO, especially during the options design phase of the CSNP solutions.
- 2.205 One TO commented that the current arrangements for the NOA involves the TO and ESO sequencing their activities in option development. It said that more ongoing collaboration could facilitate better consideration of alternative options or interactions with other system requirements.
- 2.206 Two TOs stated that the System Operator – Transmission Owner Code (STC) currently has provisions around effective collaboration, and that updates to the STC could be an effective way for Ofgem to encourage the required collaboration.
- 2.207 One TO proposed an ODI-F to improve collaboration in the CSNP development process. It argued that this would help maximise value to consumers but did not provide any proposals on the exact mechanism.
- 2.208 Two industry bodies highlighted the importance of effective and efficient data exchange and a robust and transparent governance framework, recognising the importance of live real time data.
- 2.209 Four respondents considered that there should be an LO for TOs to effectively engage with the NESO, but this should only occur once the CSNP methodology has been finalised. They also stated that there should also be an LO for NESO to work effectively with the TOs.
- 2.210 One respondent argued that an LO for the TOs to deliver the investment plans is required as a 'backstop' to ensure that consumer benefits are realised. However, an industry body argued that an LO would address a weakness of the current price control arrangements in that there is no obligation on the TO to actually take forward ESO determined projects.

SSMD decision and rationale

- 2.211 We expect the NESO, in collaboration with the TOs, to work through its obligations from network codes and licence conditions. This will enable the NESO to understand what accountabilities need to change as the it takes on a greater

planning responsibility through its own consultation on the CSNP Methodology later in 2024.

2.212 We have decided to place a Strategic Planning LO on TOs to cooperate with the NESO. This will encompass cooperation on the CSNP, SSEP and RESP as well as any other centralised planning functions that NESO may lead on.

2.213 It is critical for the TOs to cooperate effectively with the NESO - particularly in the development of options to meet system needs identified by the NESO and ensuring these options meet the minimum design requirements. Meeting these minimum design requirements is essential for ensuring we can effectively expedite funding decisions through the price control. Options that are not developed to a robust level of engineering design may delay the provision of PCF and ultimately the full funding for projects.

2.214 We will confirm our position and scope of the LO at Draft Determinations. It is not appropriate to set out the scope yet, while the NESO is developing the CSNP Methodology and while other centralised planning functions are being developed.

2.215 We will not implement an ODI-F for greater coordination between the NESO and TOs because of the inherent difficulties in calibrating a fair incentive between two organisations with complex, and sometimes conflicting, objectives. Given the two-way nature of the interaction, there would be inherent subjectivity in determining culpability and it is not our role to arbitrate.

Load Related Expenditure outside of the CSNP

LRE in RIIO-ET3

SSMC summary

Overarching framework

2.216 As set out in our SSMC, large portions of new network build in RIIO-ET3 will be determined by the CSNP, but the TOs will retain most of the local level planning of the ET networks. In our SSMC, we specified that we would categorise this as LRE in RIIO-ET3, as it has been in previous price controls.

2.217 In our SSMC, we proposed that:

- where the TOs can provide clear justification of the needs case and costs for the work, we would provide baseline funding for these schemes at the start of the price control;

- where the needs case can be robustly evidenced in a TO's RIIO-ET3 business plan, but there is cost uncertainty, we would use a streamlined LRR that only assesses the efficiency of the costs once they reach a pre-agreed maturity threshold; and
- where both need and cost are unstable or uncertain, we would use a standard LRR to review both the need and costs for these schemes (potentially at separate times, as appropriate).

2.218 In our SSMC we sought views on whether our approach strikes a balance between providing appropriately sized allowances, giving the TOs flexibility to respond to changing circumstances in relation to load and non-load related investment drivers, and holding the TOs to account for specific deliverables and timely delivery.

2.219 We proposed to use volume drivers for network investments that are uncertain but stable unit costs can be established.

2.220 We also stated that the TOs were planning a holistic approach for investments at specific sites with overlapping investment drivers (load and non-load). Given the variety of factors driving the need for these projects, we propose to refer to such works as 'shared driver' projects during RIIO-ET3.

2.221 We specified that the best approach for LRE funding is one that aligns with the relative certainty of the needs case and costs.

Volume drivers

2.222 In our SSMC we proposed to retain the use of volume drivers for network investments that have the following characteristics:

- the needs case is uncertain;
- work is broadly repeatable, meaning each project will have a similar scope of work;
- work is measurable, meaning that they can be quantified by metrics that reflects the volume of work delivered; and
- unit costs can be estimated with a high degree of accuracy and consistency based on historical data or benchmarks.

2.223 We did not set out the specific scope or detailed calibration for either the generation or demand volume drivers in our SSMC.

2.224 Where both need and costs are uncertain, we proposed to use a re-opener mechanism to review both the need and cost for funding these schemes.

Summary of consultation responses

Overarching framework

- 2.225 Regarding questions ETQ7 and ETQ8, there was general support from all respondents for our proposal on the broad LRE framework.
- 2.226 In general, stakeholders agreed that project funding should be predicated on the provision of a clear needs case and costs justification, ie aligned to a clear set of engineering designs and optioneering.
- 2.227 One TO disagreed with having two separate funding mechanisms for CSNP and wider load related projects, suggesting that regional investments should be considered as part of a singular regime because investments in both categories can be considered strategic. The TO also asked for a definition of Strategic Investment.
- 2.228 Another TO stated that the RIIO-ET3 framework should empower TOs to make anticipatory investments, through baseline or re-openers, ensuring a 'connections-ready' and future-proofed network. This TO argued that the principle of 'do it once, do it right' should guide investment planning. The TOs welcomed our recognition of their assessment of customer connections confidence and how this assessment supports their needs case for investments.
- 2.229 One TO proposed to use a UIOLI mechanism for low materiality investments that cannot be managed through the volume driver. It argued that this approach would reduce the level of regulatory burden so would enable us to focus our time on assessing larger projects.
- 2.230 All TOs and one Distribution Network Operator (DNO) shared similar views that a streamlined re-opener for projects is needed where:
- the needs case can be robustly evidenced within business plans but costs are uncertain; or
 - a project resulting from connection agreements is atypical due to specific characteristics.
- 2.231 Two TOs argued that there should be no financial threshold for the LRR, except when costs are inaccurately represented by volume driver unit rates, to ensure that all types of projects are captured.
- 2.232 One TO stated that any determination of needs case must be completed as quickly as possible, arguing that the TOs' customer connection assessment should provide the needs case.

- 2.233 Two TOs said that they should be able to submit re-opener applications at any time in-period, arguing the need for flexibility because fixed application windows hinder project momentum. They also stated the importance of maintaining regular engagement with us on the evolving maturity of projects. They reasoned that it is their responsibility for sharing re-opener pipeline.
- 2.234 One TO asked for a clarification of the definition of 'shared driver', and suggested that it should be expanded to more effectively include works with multiple drivers to utilise outages or resources at a specific site.
- 2.235 One TO asked about the interactions with NARM and how to evidence the needs case and optioneering for non-load related elements of project. In particular, it sought information on the treatment of work with shared load and non-load drivers and the treatment of assets that are in the NARMS framework.

Volume drivers

- 2.236 Four of the six respondents to ETQ9 set out a strong preference for retaining the generation and demand connections volume drivers.
- 2.237 All respondents agreed that the retention of volume drivers is an effective way of enabling TOs to deliver at pace. Four respondents agreed that the RIIO-ET2 mechanisms should be reviewed and updated to represent a suite of measurable and repeatable activities.
- 2.238 All TOs had concerns about the current calibration of the volume drivers in RIIO-ET2. They argued that cost confidence should be market tested and proposed changes to the definition of 'well justified costs'. They all proposed reforms on the scope of the mechanism and disaggregation of assets, voltages, and substation activities. For example, this could see an evolution of the £MW/£MVA for different activities to reflect the work delivered. They argued that we need to explore the introduction of unit rates that reflect voltage (ie 132kv/275kv/400kv) and asset type (eg tower vs pole) as there is a significant difference in the costs and the volume driver needs to reflect these genuine outliers.
- 2.239 One TO proposed the use of an ex post cap-and-collar or true-up review to protect both consumers and TOs from windfall gains and losses.
- 2.240 One TO highlighted the need to continue providing ex ante allowances alongside common drivers. It said that the volumes associated with the ex ante allowance must be set at a level that will enable investment to happen quickly.

SSMD decision and rationale

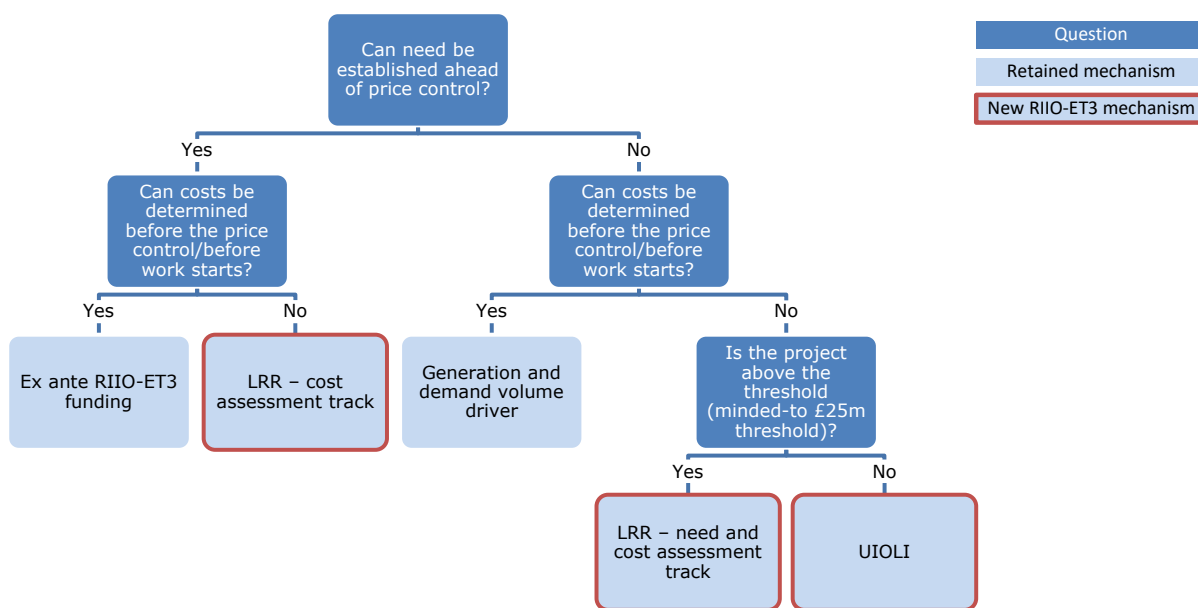
Overarching framework and baseline funding

2.241 We have decided that the overarching framework for LRE in RIIO-ET3 will have the following mechanisms:

- **Ex ante funding:** we will provide baseline allowances for projects where the needs case and costs can be justified by TOs in their business plans.
- **LRR:** for all projects with cost uncertainty at the time of the RIIO-ET3 business plans, we will apply the LRR. This can be used both:
 - (1) where the TO can demonstrate a justified needs case, a reasonable degree of engineering design and optioneering, and reasons why the project is too immature for baseline funding. We will approve the need for the project, and it will be eligible to apply for full funding through the LRR. Such projects will be eligible for PCF from the start of RIIO-ET3; and
 - (2) where the TO cannot fully justify the requirements set out above, the LRR will include an assessment of these requirements once available. Such projects will be eligible for PCF once the project is approved through the LRR at latest, but potentially earlier depending on the level of project development.
- **Generation and demand volume driver:** a volume driver for allowances linked to specific incremental values (eg £/km of OHL) to accommodate changing volumes of connections for generation and demand customers.
- **UIOLI:** UIOLI funding for lower value load activities that are below the LRR materiality threshold, not sufficiently developed to warrant RIIO-ET3 baseline funding, and not within scope of the generation and demand volume drivers.

2.242 These mechanisms are summarised in the decision tree in Figure 8 below. In the following subsections we discuss each mechanism in more detail.

Figure 8: RIIO-ET3 non-CSNP LRE funding mechanisms



2.243 We agree with respondents on the need for a streamlined process to assess the need and costs for LRE. We have developed a framework that will be reflective of the relative maturity of a project’s needs case and costs. Lessons from past price controls and current mechanisms have shown the critical importance of the TOs demonstrating projects have reached a threshold of engineering design and optioneering. Demonstrating minimum design maturity enables effective cost and engineering assessments, which supports the wider objectives of the TAAP to accelerate ET network build.

2.244 To support our ability to make effective decisions for baseline funding, including cost assessment and engineering assessment, where possible we expect the minimum level of engineering design to be at Stage 2 (with a preference for Stage 3 where possible).²¹ We recognise that design maturity might not be fully established before the business plan are submitted to us. If evidence for Stage 2 level of engineering design cannot be provided through their business plans, TOs should explain why. In such instances, we expect TOs to offer alternative supporting evidence to gain our confidence in cost estimation and design, provided they can demonstrate the robustness of their data.

2.245 We disagree with the view that there should be a single mechanism for both CSNP and non-CSNP projects. We think that we need different mechanisms to recognise that CSNP projects have their needs case determined by NESO, which

²¹ The design stages are defined in the Indirect Design Definitions Table of the latest RIIO-ET2 Regulatory Instructions and Guidance [RIIO-T2 Electricity Transmission Price Control –Regulatory Instructions and Guidance on Data Templates: Version 1.8](#)

also takes an independent view on the required in service dates for CSNP projects. For non-CSNP projects there is no independent assessment of the need for the project. It would also be very difficult, given information asymmetries, for us to determine an independent target delivery date robust enough for use in a delivery incentive in the same way as is possible for the CSNP-F. Therefore, we do not consider the areas align sufficiently to be considered under a single mechanism.

- 2.246 We agree with the TO's view that the RIIO-ET3 framework should empower a 'connections-ready' and future-proofed network. However, we consider that TOs should not use re-openers as the primary mechanism to manage strategic investments, particularly given the typically long lead times for delivering these investments. As prudent asset managers, we expect the TOs to have the best intelligence on the requirements on their local networks for both load and non-load work. They should therefore be proactive in managing investments to meet likely connections requirements through baseline allowances as far as possible.
- 2.247 We define Strategic Investment as investment that helps manage uncertainty for future load and non-load requirements on the TOs' local networks. We expect the TOs to undertake Strategic Investment to manage uncertainties around local connection demand and non-load requirements. Our LRE framework provides the flexibility for TOs to undertake pre-emptive investments such as the procurement of land and expansion of substation bays in a coordinated manner (eg when confronted with assets that are in poor condition or approaching obsolescence and at maximum operating capacity).
- 2.248 We have decided to define 'shared driver' projects as related reinforcement works on existing or new substations, OHL or cables, which include significant non-load related elements, or other external interfaces.²² Noting the TO's comment on aligning outages, we consider this definition provides sufficient flexibility for the TOs to align shared drivers works with external factors such as outage slots.
- 2.249 We note one TO's comments relating to the interaction between shared driver projects and NARM. For load related projects that also contain elements relating to the health of existing assets on the network, we need to avoid double-counting between LRE funding mechanisms and the NARM. Assets being upgraded through

²² Shared driver projects could include a project that has a load driver (eg new generators needing to connect to a substation), where the TO could at the same time upgrade or replace related assets on the same site (eg static compensators) that will soon need to be upgraded due to asset health. Completing these works at the same time can offer cost and time savings as compared to waiting for a new outage slot for the secondary piece of work.

such shared driver projects will be removed from the NARM framework if the TO chooses to use an LRE funding mechanism for this work instead of including it under NARM funding.

- 2.250 One TO was supportive of the RIIO-ET2 load assessment approach where they submit the optioneering and cost benefit analysis to us during our assessment of the needs case, and prior to our assessment of the cost submission. We recognise that the TOs consider this flexibility to be useful, but our aim is to ensure that projects are delivered consistently in line with the funding provided. This requires a sequencing of the project assessment which allows some flexibility to the TOs in project development but which also allows us to undertake assessments when projects are at a more mature stage. We will continue to work with the TOs and wider industry stakeholders to ensure the LRR has sufficient flexibility and robustness to allow for decisions to be expedited when appropriate.
- 2.251 We have set out our minimum expected evidence base through the Investment Decision Pack (IDP) and Engineering Justification Paper (EJP) Guidance for individual projects and the strategic narrative through the RIIO-3 Business Plan Guidance (BPG).
- 2.252 We agree with the industry stakeholders which highlighted that DNOs are an important part of strategic planning for shared driver projects. We expect the TOs to work closely with DNOs and other relevant stakeholders as part of their wider load strategy.

LRE UIOLI

- 2.253 We agree with the TOs on the benefits of a UIOLI mechanism for supporting lower materiality projects. We propose that the activities shown in Table 5 should be in scope. We will work with the TOs on finalising this list through the business plan assessment process.

Table 5: Indicative LRE UIOLI scope

Project category (provisional)	Description
Atypical connection projects	For material deviation between the predicted allowance the lower thresholds.
NESO-directed projects	Any project that receives a firm needs case from the NESO.
SO-driven requirements	Written request by the NESO for additional investment in relation to system operability and constraint management requirements.
Harmonic Filtering Equipment Requests	Harmonic Filtering Equipment Requests from the TO's customers to aggregate and deliver harmonic filtering requirements, or following NESO/TO system studies showing a potential breach of planning limits.
Protection Equipment Protection	Changes required to address system issues following NESO/TO system studies and includes Operational Load Management Schemes, subject to the receipt of an STC planning request and dynamic line rating equipment.
Projects to maintain SQSS	Projects to maintain SQSS compliance. TO demonstration of the need to modify the network to meet SQSS compliance for security and system operability.

2.254 We agree with the TOs on the importance of having a mechanism besides baseline funding to capture those projects that will be below the LRR and Generation and Demand Volume Driver thresholds. Our minded to position is that the UIOLI will apply for projects below £25m, but we will consult on an exact threshold at Draft Determinations. We will work with the TOs to understand and decide the appropriate materiality threshold above which projects are no longer eligible for the UIOLI and instead need to apply through the in-period re-opener.

2.255 We consider that a recalibration of the volume driver alongside baseline funding and provision of a UIOLI supports our objectives set out in the SSMC to reduce regulatory burden, create flexibility and accelerate LRE funding.

LRR

2.256 We agree with respondents on the need to have re-opener stages that reflect the relative certainty of need and cost. Our decision is that the LRR will have different pathways for the following situations:

- If the needs case is evidenced in the RIIO-ET3 business plan, but there is cost uncertainty, we will approve the need at our Final Determinations and later use a streamlined re-opener mechanism that only assesses costs once it has reached appropriate cost and design maturity. We may provide PCF that is dependent upon design and optioneering maturity;

- If both need and cost are uncertain when setting RIIO-ET3, the project requires PCF, and meets the eligibility and materiality threshold, we will use a standard re-opener mechanism and provide PCF.
- If both need and cost are uncertain when setting RIIO-ET3, the project is of low complexity, meets the eligibility and materiality thresholds, but does not require PCF, we will use a streamlined re-opener mechanism.

2.257 We disagree with the suggestion by two TOs to remove the financial threshold for re-openers and have the LRR apply to all projects regardless of cost. As highlighted by another TO, a recalibration of the Generation and Connections Demand Volume Driver could reduce MSIP applications in RIIO-ET2 by up to 60%. Our decision is to apply a financial materiality threshold for the LRR. We are currently minded to set this threshold at £25m, based upon our experience from projects within the MSIP. We will consider additional data from submitted business plans to help calibrate this value, which we will consult on at Draft Determinations.

2.258 We agree with TO feedback that the cost assessment submission should remain flexible and should align in principle with our ASTI assessment approach,²³ or an evolution of it as appropriate. This includes the separate approaches to direct costs and indirect costs, in line with the CSNP-F (see paragraph 2.194) and the use of a standardised submission format from the companies.

2.259 We note the TOs' request for flexibility on when re-opener applications can be submitted, and we will work with TOs to ensure appropriate submission windows.

2.260 We agree with the TOs' on the importance of maintaining regular engagement and consider that our LRR framework facilitates regular communication between parties to support decision making.

Volume drivers

2.261 We have decided to retain a volume driver to accommodate uncertain volumes of connection of generation and demand customers. We agree with stakeholder views that it is important to provide flexible funding in response to the uncertain timing and location of new generation or demand customers

2.262 We agree with TO concerns about the current precise calibration of volume drivers, including their scope. We will work closely with the TOs to develop a

²³ For ASTI - there is a qualitative ex-post assessment that challenges costs only if they are demonstrably inefficient and wasteful expenditure.

revised methodology for calibrating the volume driver in RIIO-ET3 and seek views on the appropriate scope of the volume driver.

- 2.263 We agree with TO views that a recalibration of the volume driver can help reduce regulatory burden, by providing funding to low materiality projects where on balance there is greater consumer benefit in the TO proceeding quickly than in us assessing the TO's proposals in detail. We consider that this will be achieved through our introduction of a UIOLI mechanism for low materiality projects alongside the volume drivers.

Other LRE issues raised in SSMC responses

- 2.264 Respondents raised various issues related to RIIO-ET3 LRE which we did not specifically consult on in our SSMC. These are explored in the subsections below.

Role of the ITA outside of the CSNP-F

- 2.265 We acknowledge TO proposals on involving the ITA to streamline assessment and provide additional assurance, and the industry body's proposal for its general inclusion in the LRR with roles mirroring those in the CSNP-F.
- 2.266 Our decision is not to use the ITA for LRR projects. Our primary focus in setting up the ITA is to provide assurance on large and critical ET projects that arise from the CSNP. Additionally, the volume of work to be undertaken by the ITA is uncertain and will only begin to be understood once the CSNP is closer to publication.
- 2.267 We are open to expanding the ITA's scope in the future to potentially include LRR projects if doing so would bring consumer benefits, but we consider it is important to initially allow the ITA to develop and settle into its role for CSNP-F projects. After the ITA is operational, we will review its impact and the potential benefits it could bring to selected non-CSNP projects.

Role of delivery incentives outside of the CSNP-F

- 2.268 TO responses to our SSMC supported a timely delivery incentive for non-CSNP load projects, to incentivise them to deliver outcomes that are most in line with consumers' interests.
- 2.269 In their proposals, the TOs have not provided evidence to demonstrate the potential benefit of a timely delivery incentive in this space, or how it could practically be implemented. For example, the TOs have not suggested how to set an independently verified in-service date for an incentive. A crucial difference between these projects and those in the CSNP-F is that we will be able to set an independent target delivery date for the delivery incentive, heavily supported by

the NESO's determination of an optimal delivery date for CSNP projects. For non-CSNP projects, the TO will determine the delivery date, and there is a risk that the existence of a delivery incentive could discourage the TOs from being ambitious when setting that original in-service date. This could have a perverse impact on the TOs' behaviour and could result in projects being delivered later than if there were no delivery incentive.

2.270 Our decision at this stage is that we do not consider that it is appropriate to develop a project-specific delivery incentive for these projects. We expect that our reformed connections incentives (see Chapter 4), which may include a focus on efficient network build, will be sufficient to incentivise on-time delivery of non-CSNP projects. We will consult on the development and calibration of this incentive later in 2024 so that it is in place by the start of RIIO-ET3.

Funding across price control periods

Volume drivers

2.271 The RIIO-ET2 volume drivers allow projects that begin construction before the end of RIIO-ET2 to continue to receive funding under this mechanism if necessary for up to two years following the end of the price control period.²⁴ The TOs flagged that something similar needs to exist for future price control periods too.

2.272 Our decision is that any spending on volume driver projects which begin construction in RIIO-ET3 but continue into RIIO-ET4 will be recoverable under the RIIO-ET4 Generation or Demand Volume Drivers (or equivalent). We will work with the TOs on the detail of this in advance of Draft Determinations.

2.273 On projects that would be subject to the RIIO-ET2 volume drivers but have not started construction and it is credible that there is a risk of delayed delivery to after 1 April 2026, we expect these to be submitted in the RIIO-ET3 business plan.

MSIP projects

2.274 The absence of a January 2026 MSIP application window will result in existing MSIP applications that do not yet have cost certainty rolling over into RIIO-ET3. The TOs flagged that these would require an assessment within RIIO-ET3.

2.275 One TO highlighted that a significant number of its projects would fall into the category of 'in-period streamlined cost only re-opener' under the LRR, including

²⁴ See paragraph 4.27 of our RIIO-ET2 Final Determinations: [RIIO-2 Final Determinations Electricity Transmission System Annex \(REVISED\) \(ofgem.gov.uk\)](#)

these MSIP projects, as they will not have tendered prices until after the RIIO-ET3 business plan submission.

- 2.276 Projects such as these should be included in the TOs' business plans, clearly highlighting that they were previous MSIP projects and providing rationale for why the needs case remains. with The TOs should flag that they are not seeking baseline allowances but will include these projects in a future LRR application.
- 2.277 Our decision is to apply two different approaches to these types of projects based on the proportional split in forecast expenditure between RIIO-ET2 and RIIO-ET3:
- For MSIP projects with more than 50% of forecast expenditure in RIIO-ET2, the TO should submit the full project allowance through an MSIP application in the January 2025 window:
 - Full project allowances will be determined through the MSIP process.
 - The RIIO-ET2 proportion of allowances will be awarded as normal for MSIP applications.
 - The TO should set out the ET3 proportion of allowances as part of its business plan for baseline funding. Alternatively, if the RIIO-ET3 portion of spend cannot be confirmed (eg low cost confidence because tendered prices cannot be confirmed), the TO must clearly set out in its RIIO-ET3 business plan its intention to apply for funding via the LRR, including reasons why allowances do not have firm cost confidence.
 - For MSIP projects with less than 50% of forecast expenditure in RIIO-ET2, the TO should include the full project allowance in its RIIO-ET3 business plan, flagging that the need for the project was previously established under the MSIP mechanism:
 - Full project allowances will be determined as part of the RIIO-ET3 business plan assessment.
 - The RIIO-ET3 portion of allowances will be included as part of RIIO-ET3 Final Determinations,
 - The RIIO-ET2 portion of allowances will be awarded as part of the RIIO-ET2 closeout process. Alternatively, if the RIIO-ET3 portion of spend cannot be confirmed (eg low cost confidence because tendered prices cannot be confirmed), the TO must clearly set out in its RIIO-ET3 business plan its intention to apply for funding via

the LRR, including reasons why allowances do not have firm cost confidence.

2.278 We will work with the TOs to determine the most appropriate timing for LRR submission windows.

Community Benefits

2.279 In November 2023 the government proposed to move forward with new community benefits guidance.²⁵ We know a new government is currently being formed and we will continue to engage with government to ensure the price control aligns with policy priorities, as appropriate.

Standardisation

2.280 We set out in the SSMC that, where possible, we expect the TOs to use standard designs and standard equipment to keep costs down and help to improve supply chain delivery timelines.

2.281 We believe standardisation will be most influential in substation design, where we expect the TOs to consider "plug-and-play" solutions when appropriate. Where innovation and use of novel equipment can deliver better long-term outcomes for consumers, we would expect the TOs to evidence these options in their business plans and UM submissions.

2.282 The TAAP suggested creating a forum between the ESO, TO equipment manufacturers and us to review and update equipment standards used within GB. We agree with the government's proposal and have been working with the ESO and the TOs in this area. The forum will work to ensure that standards are consistent with the needs case, which will depend on the results of discussions between the ESO/NESO and the ENA.

Minimising networks' impacts on the environment

Introduction

2.283 Our RIIO-ET2 environmental framework focused the TOs on being more transparent on the environmental impacts of their networks and accountable for the mitigation actions they are taking to reduce these impacts. The core environmental outputs and incentives in RIIO-ET2 were:

²⁵ [Community Benefits for Electricity Transmission Network Infrastructure: government response \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

- Environmental Action Plan (EAP) and Annual Environmental Report (AER): ensuring that the TOs take responsibility for the environmental impacts arising from their networks and are more transparent in what they are doing to mitigate these;
- Business Carbon Footprint (BCF) ODI-R: setting a common reputational incentive for the TOs on their respective BCF reduction targets;
- Insulation and Interruption Gas (IIG) leakage ODI-F: incentivising a reduction in leakage of SF6 and other IIGs from assets on the ET network, and to support the transition to low greenhouse gas alternative IIGs;
- Visual Amenity in designated areas provision: funding projects that reduce the visual amenity impacts of existing infrastructure in National Parks, Areas of Outstanding Natural Beauty (AONB), and National Scenic Areas; and
- Environmental Scorecard (NGET only): incentivising NGET to outperform selected RIIO-2 targets in their EAPs.

2.284 In this section we set out our decisions on how the TOs should safeguard the environment in RIIO-ET3, building on an assessment of the RIIO-ET2 mechanisms. Our aims for RIIO-ET3 environmental performance are:

- to mitigate environmental impacts that arise from network activities and increase transparency of the TOs' actions and plans to decarbonise their networks in line with net zero;
- to ensure that the TOs consider biodiversity and the climate crisis in new construction and mitigate environmental impacts of construction; and
- improved information sharing and cooperation between the TOs on environmental initiatives.

2.285 The EAP, AER, BCF and Environmental Scorecard mechanisms all apply to at least two of the sectors, so we have described our views on those mechanisms in Chapter 6 of the Overview Document. At the end of this section we discuss company specific environment outputs that were set in RIIO-ET2.

Insulation and Interruption Gas Leakage ODI-F

SSMC summary

2.286 SF6 is a highly potent, industrial greenhouse gas with a global warming potential 23,500 times that of carbon dioxide. It has been used extensively in electrical

switchgear due to it being a highly effective electrical insulator and preventer of short-circuits. Other IIGs have a lower damaging global warming potential, although their leakage is still damaging to the environment.

- 2.287 In the first two years of RIIO-ET2 the TOs outperformed their targets, as well as showing progress in installing SF6 free switchgear at 400Kv.
- 2.288 In our SSMC we set out our proposal to retain a symmetrical IIG ODI-F, which should focus on reducing leakage rates, improving management of IIG assets and driving a reduction of IIGs in the system.
- 2.289 We opened the conversation around a potential review into what qualifies as an exceptional event and what further evidence should be provided in support of such claims.
- 2.290 We proposed that the TOs set out a SF6 reduction strategy as part of their EAPs, and use AER commentary to provide consistent and comprehensive information on the use of SF6 and other IIGs.
- 2.291 We also considered that there could be a case for including a deadband (where no penalties or rewards are given) around the target level of emissions. The purpose of a deadband would be to allow for fluctuation in performance that might be due to some uncontrollable factors. This would therefore allow some flexibility to accommodate timing issues in emission reduction activities that could be subject to re-scheduling because of, for example, supply chain issues.

Summary of consultation responses

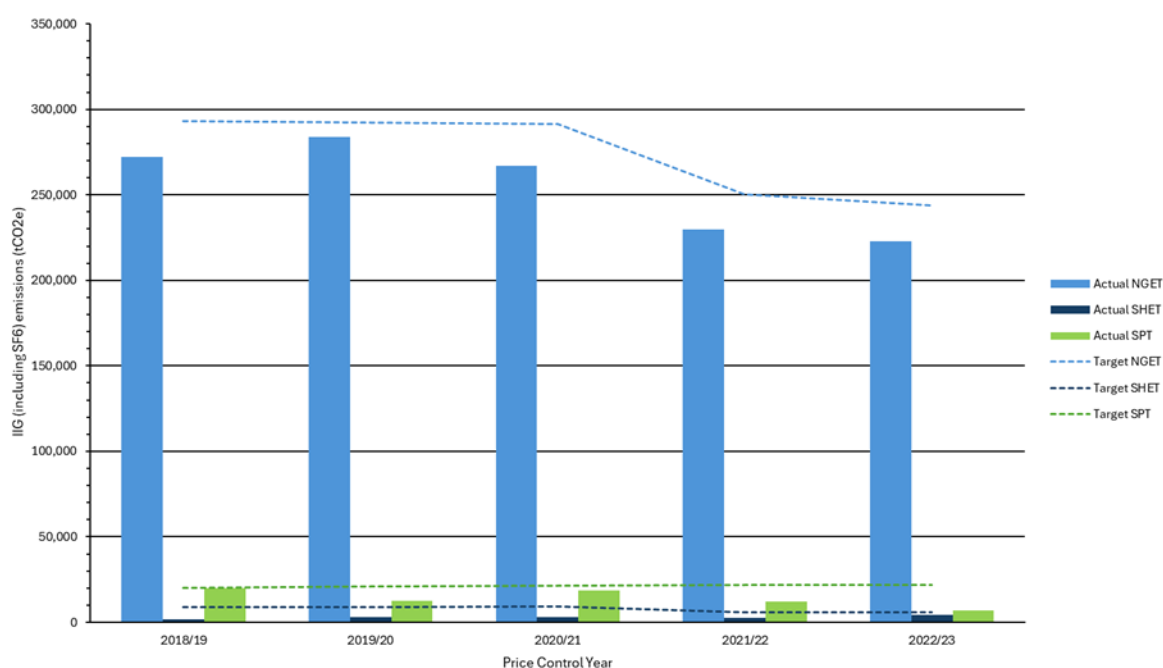
- 2.292 In ETQ10 we asked for views on our minded to proposal of retaining the IIG ODI-F, and our proposed additional commentary and associated reporting requirements.
- 2.293 We received responses from the three TOs and seven other stakeholders on IIG and SF6 usage in the ET network.
- 2.294 There was widespread support to retain the incentive in a similar form to the RIIO-ET2 ODI-F, albeit with some changes suggested.
- 2.295 Two environmental groups disagreed with the top-up method of measuring leakage, stating that this can underestimate the amount of gas leaked from assets into the atmosphere. One suggested real-time monitoring instead.
- 2.296 Two TOs and two other stakeholders suggested that targets could be linked to each TO's own Science Based Targets. This would ensure a link between IIG emissions and a TO's wider environmental package.

- 2.297 The concept of including a deadband was not supported by respondents, for different reasons. An environmental group said that although they appreciate the significant supply chain issues, the cumulative climate impact of greenhouse gas emissions means that there is greater benefit in delivering leakage reductions sooner - and that a deadband would weaken the incentive to do so. One TO stated that a deadband range would dampen the incentive strength by acting as a disincentive for small scale interventions.
- 2.298 Some respondents raised issues about the level of funding required to meet the TOs' objectives. One TO stated that the IIG incentive cannot fund the investment needed to reduce the current inventory. If we were to set more ambitious targets, an environmental group said that we would need to provide baseline funding for the increased operational activities on SF6, as well as funding for major removals.

SSMD decision and rationale

- 2.299 We will retain an ODI-F on IIG leakage for RIIO-ET3 and we encourage the TOs to propose specific outputs for the replacement of SF6 equipment in their business plans. We consider that together these will encourage the TOs to decrease leakage emissions from existing assets, but also allow for the use of alternative IIGs, where appropriate, which the incentive would not fund.
- 2.300 Figure 9 shows annual IIG emissions by TO against their individual targets. It covers five reporting years, straddling the last three years of RIIO-ET1 and the first two of RIIO-ET2. It shows that continued incentivisation is working, as evidenced by an 18% reduction in NGET's and a 66% reduction in SPT's IIG emissions across the five years. It also shows the disparity between the TOs in their emission levels.

Figure 9: Annual IIG emissions by TO against their targets, 2018-2023



2.301 There are elements of the ODI-F that we will continue to work on with TOs and stakeholders over the next 12 months, in advance of Draft Determinations:

- We intend to set more ambitious targets which will be linked to each TO's individual scientific trajectory for net zero as set out in their business plans, with rewards and penalties if the TO is ahead or behind their net zero compliant glidepath for IIG emissions.
- We will not be implementing a deadband. The recalibration of the incentive targets will ensure clarity for the TOs while also emphasising the importance of managing the reduction of IIGs in the network.
- We will continue our work to explore different methods of leakage monitoring. We appreciate the issues raised by respondents to the SSMC and so are active in our search for a practical replacement method. If a change in measurement methodology is not possible, we will focus on setting an incentive value that reflects this.
- To help accelerate the removal of SF6 assets, we welcome TO proposals in business plans that relate to additional funding for the replacement of such assets. This should include flagging where TOs are coordinating SF6 replacements with wider substation replacement, refurbishment or upgrade activities.

Visual Amenity PCD and Re-opener

2.302 RIIO-ET3 will continue our work in enabling the TOs to efficiently address the visual amenity of new ET infrastructure as necessary to obtain planning consent.

2.303 In RIIO-ET2, TOs could apply for additional funding to mitigate the impact of existing ET infrastructure. An overall expenditure cap for this period was set at £465m.

SSMC summary

2.304 We proposed in our SSMC that if we were to retain the Visual Amenity PCD and Re-opener, in relation to existing large capital projects, we would retain the RIIO-ET2 approach.

2.305 We noted that if we retained the funding, we would want to see updated analysis from the TOs that there is consumer willingness to pay for additional projects in RIIO-ET3.

2.306 However, in our SSMC we also set out two key concerns around retaining visual amenity funding:

- Firstly, we noted large capital projects to address the visual impacts of existing infrastructure rely on the same expertise and resources that are needed for delivering new projects critical to the net zero transition. We expressed concern about the impact on the supply chain should the funding be retained and whether this would detract from other essential work required to meet net zero targets.
- Secondly, we noted that prioritising the build of new infrastructure at the lowest cost to the consumer is imperative, and that we must make a judgment as to the necessity of undertaking additional large capital visual amenity projects at this time.

Summary of consultation responses

2.307 ETQ11 asked for stakeholder views on retaining funding to support projects that reduce the visual impacts of existing infrastructure in designated areas.

2.308 We received ten consultation responses to ETQ11. Themes explored in the consultation responses were regulatory obligations, health and wellbeing, consumer willingness to pay, natural beauty, environmental impact, community engagement and the prioritisation of constrained resources.

2.309 Five environmental groups advocated for the retention of visual amenity funding, including by reference to amendments made to section 11A of the National Parks

and Access to the Countryside Act through the Levelling up and Regeneration Act 2023. These respondents emphasised the importance of us ensuring that the visual amenity of GB's natural environment is protected.

2.310 All three TOs wanted to retain this mechanism. However, one TO said it is not currently developing any new projects to be undertaken through it. Another TO also said that, given the challenges surrounding supply chains and resource availability, priority must be given to the delivery of projects that directly deliver net zero outcomes. The supply chain challenge was also recognised by another TO who mentioned it was the reason why it had endeavoured to have no more than two major undergrounding visual impact provision (VIP) projects in active delivery in any one year.

SSMD decision and rationale

2.311 Taking into consideration the potential risk of exacerbating supply chain issues and the impact on consumer bills detailed in Chapter 2 of this document and the supply chain resilience section of the Overview Document, it is our view that it is not in the interests of consumers in respect of our principal duty under the Energy Act 1989 to retain the Visual Amenity PCD and Re-opener for existing infrastructure. We will remove it from RIIO-ET3 but will consider whether it can be re-introduced when setting future price controls.

2.312 In order to reach net zero, there is going to be an unprecedented mobilisation of TO resources. Our key concern is that maintaining these mechanisms for RIIO-ET3, and allowing the TOs to undertake work through them, would exacerbate existing supply chain issues. In turn, this would create further upward pressure on consumer bills, which the use of the mechanisms would also exacerbate. We consider that the TOs should be focused on delivering projects that make this significant challenge achievable.

2.313 Notwithstanding the effect of the recent amendments to the National Parks and Access to the Countryside Act 1949 on our statutory duties, we are ultimately of the view that removing the Visual Amenity PCD and Re-opener for existing infrastructure during RIIO-ET3 satisfies our principal objective of protecting existing and future consumers. We do not consider that this decision conflicts with the duty in the National Parks and Access to the Countryside Act 1949. We consider that reaching net zero is an objective which has the long-term protection of the natural environment at its core, including many of the vulnerable landscapes in GB's national parks.

2.314 We are also minded to retain the Landscape Enhancement Initiative (LEI) UIOLI for RIIO-ET3 (discussed below), ensuring that the TOs are funded to deliver initiatives that conserve and enhance natural beauty.

Landscape Enhancement Initiative (LEI)

2.315 In RIIO-ET2 the LEI was included as a specific £7.5m UIOLI allowance per TO within the £465m Visual Amenity PCD. The LEI enabled the TOs to deliver low-cost environmental improvements such as: woodland, grassland or habitat restoration; fencing; and all-weather access improvements in areas where there is transmission infrastructure. The TOs have reported on the various projects delivered under the LEI on their websites.²⁶

2.316 Four respondents referred to the benefits of the LEI, which was not specifically discussed in our SSMC. They praised the work enabled by the LEI in providing a catalyst for collaborative working across the country.

2.317 We have decided to retain the LEI. It is a relatively simple and inexpensive means of ensuring the visual aesthetic of the countryside is supported by the TOs without materially distracting TO and supply chain resource from new network build. We consider that the LEI provides an economic way to contribute to natural beauty, biodiversity and public enjoyment of designated areas, in the current context set out above.

2.318 The LEI was set at £7.5m per TO for RIIO-ET2. We intend to retain this value as a minimum during RIIO-ET3 but are open to justifications from TOs in their business plans regarding potential increases in volume of outputs delivered, without the scope of the LEI changing.

Losses

2.319 Transmission losses refer to electricity that is lost between being put onto and exported from the network. Losses contribute to CO₂ emissions and higher system costs. Several factors affect transmission losses, such as the materials and design of the assets on the network (eg the wires and transformers), the distance the electricity has to travel between supply and demand, and the voltage

²⁶ For further information about the work undertaken through the Landscape Enhancement Initiative:
<https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/visual-impact-provision/landscape-enhancement-initiative>
<https://www.ssen-transmission.co.uk/globalassets/documents/sustainability-strategy/Annual-Sustainability-Report-2023>
[https://www.spenergynetworks.co.uk/userfiles/file/SP Transmission Annual Environmental Report 2023.pdf](https://www.spenergynetworks.co.uk/userfiles/file/SP%20Transmission%20Annual%20Environmental%20Report%202023.pdf)

at which the electricity is transported. While these losses are therefore largely the result of ESO decisions regarding specifications and usage of the electricity system, the TOs also have some ability to impact transmission losses, eg through asset procurement and network design.

2.320 We did not discuss transmission losses in the SSMC or ask stakeholders a specific question on it. Nonetheless, we received two responses concerning losses.

2.321 One environmental group expressed concern that losses were not discussed in our SSMC and highlighted the importance of the TOs having a losses minimisation strategy to maintain overall system efficiency and reduce the impact on consumer bills. The respondent suggested that the TOs' strategies should include a commitment to better understand losses and that the TOs should work with the NESO to minimise losses wherever possible.

2.322 One TO highlighted that while the resulting CO₂ emissions from transmission losses are large enough to be material for its business, transmission losses more significantly impact network performance and consumer value. To recognise this and various other issues in the area of sustainability, it suggests that the remit of the EAP is broadened to become a 'Sustainability Action Plan'. It also stated that loss-minimising activities generally sit within its business as usual (BAU) activities, rather than requiring their own specific action plan.

2.323 The TOs each included a Transmission Losses Strategy in their RIIO-ET2 business plans, and our main decisions on transmission losses in RIIO-ET2 were to:

- introduce a requirement for the TOs to incorporate transmission losses into their EAPs and remove the LO on reporting transmission losses separately;
- introduce a requirement for TOs to report annually on transmission losses as part of their AER; and
- not to introduce a new LO requiring transmission loss minimisation at RIIO-ET2, given that the TOs have only a partial influence on transmission losses.

2.324 We will retain the EAP and AER requirements with regards to losses reporting in RIIO-ET3. We will specifically target this area in our business plan assessment and provide comment on it in our Draft Determinations.

Bespoke environmental outputs in RIIO-ET2

2.325 In RIIO-ET2 we also set bespoke environmental outputs specific to particular TOs. Our views on these in our SSMC were set out Table 7 of our ET Annex, and ETQ12 asked for stakeholder views on them. Table 6 below sets out our SSMD decision and rationale on these areas.

Table 6: Assessment of the applicability RIIO-ET2 bespoke environmental outputs to RIIO-ET3

TO and Output	Description	Ofgem views for RIIO-ET3
SPT: Maximising Environmental Benefit From Non-operational Land ODI-R	Incentivises SPT to make land available at non-operational sites for community groups to install community generation projects and deliver biodiversity enhancements. SPT received a reward of £2.06m for proposing this under the RIIO-ET2 BPI, though this will be adjusted to account for actual delivery at the end of RIIO-ET2.	We do not intend to retain this ODI-R in RIIO-ET3 for either SPT or the other TOs. SPT has signalled that the volume of new connections requests is constraining its ability to hand over existing land holdings for non-network use. We consider that the other TOs are likely to face similar issues if we extended this to them.
SPT: Enhanced Environmental Requirements UIOLI	Funds SPT to deliver no biodiversity net loss on major network projects included in its baseline, and to remediate contaminated land that is found during RIIO-ET2. In RIIO-ET2 the fund was £14.6m.	We do not intend to retain this UIOLI in RIIO-ET3. We have seen insufficient evidence through RIIO-ET2 performance or the SSMC responses that it would benefit consumers to retain this funding during RIIO-ET3. Instead, the cost of mitigating adverse impacts of new projects on biodiversity should be included in the TOs' cost estimate of delivering a project. This may be included either as baseline allowance or as part of any project specific allowance approved in period.
SPT: Net Zero Fund (NZF) UIOLI	Funds SPT to assist consumers and communities in vulnerable situations to build its capacity to address their energy issues, engage with the low carbon transition and contribute to net zero targets. In RIIO-ET2 the fund was £5m.	We are open to retaining this UIOLI in RIIO-ET3 but have not taken a firm decision yet. SPT signalled in its consultation response that this fund has delivered some positive outcomes during RIIO-ET2. Both other TOs indicated that they would want a similar fund in RIIO-ET3.

TO and Output	Description	Ofgem views for RIIO-ET3
		<p>We support the positive impacts on consumers, especially around net zero education and building a community presence, that SPT has delivered under this fund. However, we are also concerned that SPT may be taking forward some projects which constitute direct funding of low-carbon energy projects, which was specifically identified as out of scope of this fund in our RIIO-ET2 Final Determinations.²⁷</p> <p>As such, we are open to providing funding of a similar order of magnitude to SPT's RIIO-ET2 NZF to each TO in RIIO-ET3. This will be contingent on each TO demonstrating that it plans to leverage its role in the community to work across the sectors, or with trusted third party organisations, to support vulnerable consumers to make informed decisions and explore/develop options to address energy needs and issues that they face.</p> <p>We may curtail or withdraw this funding altogether to the extent that, prior to our RIIO-ET3 Draft Determinations, it emerges that this fund overlaps with new government policies on energy-related support for communities.</p>
<p>NGET: SF6 Asset Intervention PCD and Re-opener</p>	<p>Holds NGET to account for the funding of a large-scale intervention programme for badly leaking assets containing SF6. The programme aims to reduce the direct network emissions of SF6 over RIIO-ET2.</p>	<p>We are open to retaining this PCD, or a PCD of broadly equivalent design and intent, in RIIO-ET3 and we are open to expanding this to all TOs. We invite the TOs to propose specific SF6 interventions for badly leaking assets, particularly where the use of SF6 alternatives is viable. We will design the specific parameters of this PCD having reviewed the TOs' business plans.</p>

²⁷ Paragraph 2.20: [RIIO-2 Final Determinations – SPT Annex \(REVISED\) \(ofgem.gov.uk\)](#)

Decision –RIIO-3 Sector Specific Methodology Decision – ET Annex

TO and Output	Description	Ofgem views for RIIO-ET3
<p>NGET: Net Zero Carbon Construction UIOLI</p>	<p>Funds NGET to deliver net zero carbon emissions on capital construction projects. In RIIO-ET2 the fund was £2.5m for NGET.</p>	<p>We are open to retaining this UIOLI in RIIO-ET3 and we are open to expanding it to all TOs. In their SSMC responses, all TOs signalled that they can see how this UIOLI could be used effectively in RIIO-ET3. However, we expect the TOs to set clear conditions for the use of high-quality offsets. These should only make up a modest contribution (ie not exceed 10%) so that the TOs' net zero targets remain credible and involve a direct reduction in CO2e emissions.</p>
<p>NGET: Reducing Carbon emissions From Operational Transport PCD</p>	<p>Holds NGET to account to deliver the volume of Electric Vehicles (EVs) and associated charging infrastructure it has been funded for during RIIO-ET2.</p>	<p>We are open to retaining this PCD for NGET during RIIO-ET3, depending on the volume of work that it still needs to deliver after RIIO-ET2. NGET set out in its SSMC response that it will still require this PCD in RIIO-ET3 as it will not deliver its RIIO-ET2 volumes.</p> <p>We do not consider that a PCD is required for the other TOs (or other network companies) in this area because the materiality of spend is significantly less than NGET's. Where we do not provide a PCD we are still open to providing baseline funding for network companies electrifying their fleet, subject to robust justification, costs and volumes.</p>

3. Secure and resilient supplies

- 3.1 Network companies need to deliver a safe and resilient network that is also efficient and responsive to change. This chapter should be read in parallel with Chapter 6 of the Overview Document which describes our proposed RIIO-3 approach to:
- the Network Asset Risk Metric (NARM);
 - physical security;
 - cyber security; and
 - climate resilience.
- 3.2 This package of measures reflects the importance of maintaining safety and reliability against a backdrop of significant changes in how the energy system operates.
- 3.3 In this chapter, we focus on the sector specific challenges of ensuring that the TOs comply with safety legislation and plan and manage outages efficiently in cooperation with the ESO.

RIIO-ET3 secure and resilient supplies outputs

Compliance with safety regulations

SSMC summary

- 3.4 In the SSMC we proposed to retain the current RIIO-ET2 approach to safety. This approach requires TOs to comply with Health and Safety Executive (HSE) legislation.
- 3.5 We do not consider that it is appropriate for us to attach additional outputs to safety policy or legislation given existing HSE legislation requires the TOs to design and operate their networks to ensure the safety of the public and their employees. HSE, further to applicable legislation, will continue to monitor and enforce performance in this area.

Summary of consultation responses

- 3.6 We received five responses in relation to ETQ13. All the respondents supported retaining the RIIO-ET2 approach to safety, and forgoing any additional responsibilities or outputs being attached to the current approach.

SSMD decision and rationale

- 3.7 We will retain the RIIO-ET2 approach to safety. As above, HSE performs this role and we therefore do not consider outputs to be necessary at this time.

Network Access Policy (NAP) LO

SSMC summary

- 3.8 The NAP is designed to facilitate efficient performance and effective liaison between the ESO and the TOs in relation to the planning, management and operation of the National Electricity Transmission System (NETS) for the benefit of consumers.
- 3.9 The requirement to publish and act consistently with the NAP is set out in Special Licence Condition 9.2 of the ET licence. The NAP sets out the commitment by the TOs to effectively communicate and coordinate (as far as possible) outage planning, and to identify ways in which TOs' actions can help the ESO minimise constraint costs. This sits alongside the TOs' statutory obligations to operate an economic, efficient and coordinated system.
- 3.10 In our SSMC, we said that the NAP plays a key role in ensuring a coordinated approach to network planning. We proposed to retain the NAP as a LO for RIIO-ET3 but sought views on any potential updates it may require, particularly in the context of the large volume of new network build expected during RIIO-ET3.

Summary of consultation responses

- 3.11 We received five consultation responses in relation to ETQ14. All the respondents supported the retention of the NAP.
- 3.12 One of the TOs highlighted that RIIO-ET3 will bring increased outage planning activity to enable the GB ET network to meet longer-term net zero targets. It said that it would be important for us, the TOs, and NESO to continue to work collaboratively through the quarterly NAP forums to identify further NAP process improvements and continue to add updates with agreement from parties.
- 3.13 The same TO also recommended further rounds of stakeholder engagement to allow user feedback to inform enhancements to the NAP procedures and guidance, and drive ongoing planning efficiencies and operational cost reductions through RIIO-ET3.
- 3.14 Another TO suggested that the NAP could be updated to include greater commitments on the NESO:
- to provide a timely view of system constraints associated with the system access requirements submitted by the TOs;

- to timely signing in of outages into the delivery plan; and
- agreeing to plan freeze at a year ahead, such that any outage changes requested within the year are subject to cost recovery as defined in STCP11.3.

SSMD decision and rationale

- 3.15 We intend to retain the NAP in its current format.
- 3.16 We agree that it is important for us, the TOs and NESO to continue to work collaboratively. We consider that the NAP quarterly forums are the best place to discuss these potential additional commitments on NESO.
- 3.17 We are keen to explore additional stakeholder engagement to better inform the evolution of the NAP and to explore potential further commitments on the NESO.

RIIO-2 mechanisms not referenced in this chapter

- 3.18 In
- 3.19 Table 7 below we summarise the remaining bespoke RIIO-2 mechanisms that have not been discussed in this chapter so far. For each mechanism, we also set out our proposal for whether we plan to include a similar mechanism at RIIO-ET3.

Table 7: Other RIIO-2 mechanisms

UM Type (TO)	Description	Decision for RIIO-ET3
PCD (NGET)	Overhead Line Conductor Replacement - to ensure allowances are adjusted down if NGET does not deliver in full the replacement of Aluminium Steel Core Reinforced Core Greased Conductors and Aluminium Composite Core Conductor.	We retain our SSMC position and expect this type of investment to be needed in RIIO-ET3. This would justify retaining this PCD if the information received through business plan submissions is of insufficient quality to enable us to set allowances without PCDs. Nonetheless, we intend to review the PCD approach for RIIO-ET3 compared to alternative options such as consolidation with other PCDs or re-openers to reduce regulatory burden. As part of the review, we will consider one TO response flagging the need for more flexibility in the existing mechanism.

Decision –RIIO-3 Sector Specific Methodology Decision – ET Annex

UM Type (TO)	Description	Decision for RIIO-ET3
PCD (NGET)	Protection and Control - to ensure allowances are adjusted down if NGET does not deliver in full certain Protection and Control works.	We retain our SSMC position and expect this type of investment to be needed in RIIO-ET3. This would justify retaining this PCD if the information received through business plan submissions is of insufficient quality to enable us to set allowances without PCDs. Nonetheless, we intend to review the PCD approach for RIIO-ET3 compared to alternative options such as consolidation with other PCDs or re-openers to reduce regulatory burden. As part of the review, we will consider one TO response flagging the need for more flexibility of the existing mechanism.
PCD (NGET)	Switchgear Other (Bays) - to ensure allowances are adjusted down if NGET does not deliver in full the intervention of switchgear other (bay) assets.	We retain our SSMC position and expect this type of investment to be needed in RIIO-ET3. This would justify retaining this PCD if the information received through business plan submissions is of insufficient quality to enable us to set allowances without PCDs. Nonetheless, we intend to review the PCD approach for RIIO-ET3 compared to alternative options such as consolidation with other PCDs or re-openers to reduce regulatory burden. As part of the review, we will consider one TO response flagging the need for more flexibility of the existing mechanism.
PCD (NGET)	Instrument Transformers - to ensure allowances are adjusted down if NGET does not fully deliver the replacement of instrument transformers based on the following drivers: PCB-filles, Dissolved Gas Analysis condition, SF6 leakage and asset family issues.	We retain our SSMC position and expect this type of investment to be needed in RIIO-ET3. This would justify retaining this PCD if the information received through business plan submissions is of insufficient quality to enable us to set allowances without PCDs. Nonetheless, we intend to review the PCD approach for RIIO-ET3 compared to alternative options such as consolidation with other PCDs or re-openers to reduce regulatory burden. As part of the review, we will consider one TO response flagging the need for more flexibility of the existing mechanism.
PCD (SHET, SPT)	Resilience and Operability - to specify investments proposed to ensure network resilience and operability.	We retain our SSMC position to review the PCD in the context of the overall resilience package.
PCD (NGET)	Bengeworth Road GSP Project - to provide funding for works at Bengeworth Road following confirmation of need.	As the specified work is expected to be completed in RIIO-ET2, we will remove this PCD. One TO agreed with this approach.

Decision –RIIO-3 Sector Specific Methodology Decision – ET Annex

UM Type (TO)	Description	Decision for RIIO-ET3
Re-opener (SPT)	Uncertain Non-Load Related Projects - to ensure appropriate funding for six non-load related projects with uncertainty over their timing and solution.	In our SSMC we proposed to remove this re-opener, as we expected the projects to be completed in RIIO-ET2. One TO pointed out that four of the six projects included in the re-opener have been superseded by load related works, while the other two will require baseline funding in RIIO-ET3. As such, we expect that this mechanism will not be required in RIIO-ET3 but are open to further considering this after reviewing SPT’s business plan.
UIOLI (NGET)	Substation Auxiliary Interventions - to ensure any unused funding for replacing NGET's Standby Diesel Generators and LVAC Boards is returned to consumers.	We will remove this UIOLI for RIIO-ET3. One TO highlighted that this mechanism will not be needed for RIIO-ET3 because it is specific to RIIO-ET2 works, which we agree with.
Re-opener (NGET)	Optel Fibre Wrap - for NGET to seek funding for carrying out the replacement of Optel fibre wrap based on a well-developed new solution and condition assessment information.	We retain our SSMC position and intend to remove this re-opener for RIIO-ET3. We expect the NGET will carry out initial work in RIIO-ET2 and that costs submitted for RIIO-ET3 will be well justified, removing the need for a re-opener. One TO agreed with removing this UM for RIIO-ET3.
Re-opener (NGET)	Substation Civil Works - to allow NGET to seek funding for a range of civil works in their substations.	We retain our SSMC position and are minded to remove this re-opener for RIIO-ET3 as we expect NGET to submit well-justified costs that will remove the need for a re-opener. One TO agreed with removing this UM for RIIO-ET3.
Re-opener (NGET)	Towers and Foundations - to allow NGET to seek funding for a range of steel and foundation works on OHL routes.	We retain our SSMC position and are minded to remove this re-opener for RIIO-ET3, as we expect NGET to submit well-justified costs that will remove the need for a re-opener. One TO agreed with removing this UM for RIIO-ET3.
Re-opener (NGET)	Tyne Crossing - to provide funding for works to remove the Tyne Crossing and replace it with a suitable alternative.	At SSMC we proposed to remove this re-opener. One TO highlighted that work might not be completed by the end of RIIO-ET2. As such, we will consider whether the mechanism should be retained for RIIO-ET3 following our assessment of NGET’s business plan.
Re-opener (SHET)	Subsea Cable Repairs - to enable SHET to seek funding for efficient costs associated with resolving unexpected subsea cable faults, or for mitigating the risk of these faults occurring.	We retain our SSMC position and consider that this re-opener will still be needed for high-cost, low probability subsea cable events in RIIO-ET3. One TO supported rolling over this mechanism from RIIO-ET2.

4.High quality of service from regulated firms

- 4.1 We expect the TOs to deliver high quality services that meet the needs of consumers and network users and enable the transition to net zero.
- 4.2 We want to drive positive behaviours in the service they provide by setting stretching targets for the TOs and embedding performance improvements achieved in RIIO-ET2 as BAU for RIIO-ET3. We are also considering ways in which we can better accommodate the future needs of the energy system and ensure that incentives align with developments in the industry, including the changing role of the FSO and the new CSNP.
- 4.3 In this chapter, we set out our decisions on the quality of service incentives for RIIO-ET3, which are intended to:
- drive improvements in reliability;
 - support information sharing and proactive cooperation between the TOs and NESO;
 - improve customer connection outcomes; and
 - improve general customer service.
- 4.4 This includes a review of the performance and future usage of four ODI-Fs included within RIIO-ET2. These are the Energy Not Supplied (ENS) incentive, the Timely Connections incentive, the Quality of Connections Survey (QoCS) incentive, and the SO:TO Coordination incentive.

Strength of the RIIO-ET3 incentive package

- 4.5 Overall, RIIO-ET2 ODIs (excluding the Totex Incentive Mechanism and the ASTI incentives) were worth +0.31%/-0.71% of RoRE as a total package.
- 4.6 Although we are not setting incentive rates now, we intend to broadly retain the same overall strength in RIIO-ET3 so as to maintain the incentivisation power around quality of service and environmental performance.
- 4.7 However, for RIIO-ET3 we will explore increasing the strength of a new connections incentive (relative to the two RIIO-ET2 connections incentives, and subject to the wider connections review, as described later in this chapter). We will also include incentives relating to project delivery for CSNP projects, as discussed in Chapter 2.

Energy Not Supplied (ENS) ODI-F

Retaining ODI-F or minimum obligation

SSMC summary

- 4.8 Our SSMC proposed two approaches for the ENS incentive for RIIO-ET3. One was to retain the ODI-F and the other was a transition to a minimum obligation standard.
- 4.9 We proposed the retention of the ODI-F to ensure a continued focus on network reliability (a valuable consumer outcome), building on the positive performance that has been built up in previous price controls.
- 4.10 We alternatively suggested the change to a minimum obligation standard because the TOs have shown that they can consistently deliver high levels of ENS performance for consumers. We set out that it may no longer be necessary to incentivise further improvements. Instead, a minimum standard could reflect that positive consumer outcomes could be considered BAU, given observed performance to date.

Summary of consultation responses

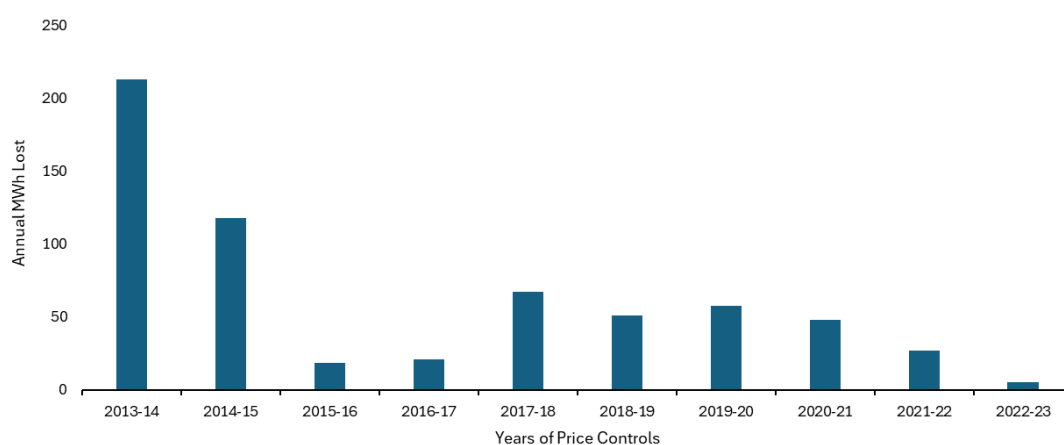
- 4.11 In their responses to ETQ15, all TOs were against the idea of a change to ENS becoming a minimum obligation.
- 4.12 One TO suggested that if an ODI-F were to remain in place, it should be more symmetrical. It also said that an ODI-R could be appropriate, alongside a small baseline UIOLI allowance.
- 4.13 Another TO agreed that the incentive should be more symmetrical but did not think that the removal of the ODI-F would be appropriate, given the historic investment in the reliability of the network that the ENS incentive has contributed to, as well as the higher risk of outages expected in RIIO-ET3.
- 4.14 The third TO pointed to the good results that the ODI-F has created and its contribution to current investment plans. It also stated that it remaining as an ODI-F will ensure network reliability is a priority for the TOs.
- 4.15 Two other stakeholders set out that ENS should be retained as an ODI-F because ensuring high reliability of the network will become both extremely important and more challenging as the network expands and becomes more complex.
- 4.16 A consumer group suggested the ODI-F should be penalty only due to embedded improved performance.

4.17 Another stakeholder was open to a minimum obligation standard and queried whether ever increasing levels of reliability are in consumer interests above a certain point.

SSMD decision and rationale

4.18 We have decided to retain a symmetrical ENS ODI-F. This is because we consider that it is driving a positive continued TO focus on network reliability, as evidenced by the decreasing trend in unsupplied energy from year one of RIIO-ET1 to year two of RIIO-ET2. In this period there has been a marked decrease in ENS as a total across the three TOs, as shown in Figure 10.

Figure 10: Collective ENS performance, 2013-2023



4.19 We have considered whether a minimum obligation standard or penalty only ODI-F could be used instead of a symmetrical ODI-F. However, we have concerns that the lack of a financial upside offered by these options could significantly alter TO behaviour in a way that risks increasing volumes of unsupplied energy.

4.20 On balance, given expected network growth over RIIO-ET3, and the potential disruption (eg increased volumes of outages) that this could cause on the network, we consider that a symmetrical ENS ODI-F will continue to provide significant consumer value. It will ensure continued network reliability during this transition by retaining a sharp TO focus on this critically important area.

Setting baseline targets

SSMC summary

4.21 Considering the consistent target outperformance in RIIO-ET1 and RIIO-ET2, our SSMC suggested implementing either a rolling baseline target or the addition of an improvement factor.

- 4.22 Rolling targets would take previous years' performance under the ODI-F into account, which would mean that targets could adapt to reflect continued improvements. However, targets could also become weaker if performance is lower than expected for a particular year, which risks perpetuating a cycle of poor performance.
- 4.23 An improvement factor would raise targets over time, and embed step changes and improvements in asset management, and better reflect experience gained.
- 4.24 We also recognised that impending changes to the network could impact the TOs' risk profile. We acknowledged that targets could already be naturally stretched given potential increased difficulty in maintaining the current level of network reliability.

Summary of consultation responses

- 4.25 In their responses to ETQ16, all three TOs were against the idea of implementing either rolling baseline targets or an improvement factor. One TO suggested that a naturally occurring improvement factor will be created due to the volume of new network build required. A second TO advised that a rolling target would likely lead to a more cautious approach to providing system access, as opposed to a fixed target.
- 4.26 One stakeholder suggested that our efforts would be better placed in establishing robust targets in the first instance, to reflect recent levels of strong performance.
- 4.27 Another stakeholder was more optimistic about the feasibility of an improvement factor. A DNO agreed as it would bring the methodology more in line with that used in RIIO-ED2 for setting targets for the Interruptions Incentive Scheme (IIS). The same DNO was less optimistic about the introduction of a rolling baseline target, as it said it would risk neutralising any incentive.

SSMD decision and rationale

- 4.28 We recognise the high performance of all three TOs so far in RIIO-ET2 and therefore intend to increase ENS performance targets in RIIO-ET3 to ensure a continued drive of service standards.
- 4.29 We will not implement a rolling baseline for targets. We remain concerned about the impact that lower performance could have on subsequent years' target levels, as well as potentially diluting the incentive strength for improving performance.
- 4.30 As indicated in our SSMC, we are interested in an improvement factor's appropriateness for the ENS ODI-F. We do not consider that the SSMC responses from each of the TOs have provided enough reasoning to alter this view and we

will therefore continue to explore its potential use. While we appreciate the challenges that come with the expected network expansion, we consider there may be merit in a formal improvement factor. It is in the consumer interest to see a continued drive in performance, as seen when targets were strengthened between RIIO-ET1 and RIIO-ET2. We will consult at Draft Determinations on the most appropriate way of achieving this, either by setting a more robust baseline target which will last throughout the price control period or by implementing an improvement factor.

- 4.31 We will consult on performance targets for ENS in RIIO-ET3 at Draft Determinations, and welcome views from stakeholders and TOs through working groups on potential revisions to our target setting methodology.

Incentive value

SSMC summary

- 4.32 In our SSMC we set out that the Value of Lost Load (VoLL) has been effective in reflecting consumer value placed on supply security and therefore proposed to retain VoLL's part in the ENS incentive rate.
- 4.33 We stated that the current estimate of VoLL is over ten years old and that we expect a new estimate will be available prior to RIIO-ET3.

Summary of consultation responses

- 4.34 ETQ17 asked if a change to the VoLL estimate would impact the investment plans of the TOs and if the incentive value methodology should be updated if the VoLL is changed.
- 4.35 There was widespread support from all five respondents for an updated VoLL estimate to be included in the incentive value of the ENS ODI-F for RIIO-ET3, appreciating that a new estimate would better recognise the value customers place on the supply of electricity.

SSMD decision and rationale

- 4.36 We have decided that accounting for an updated estimate of VoLL in the ENS ODI-F would be appropriate to reflect the current value that consumers place on their supply of electricity. The current estimate is from 2013, and so may not robustly represent the current reliance on electricity and the changes that have risen since.
- 4.37 We are currently reviewing the VoLL estimate and expect to know the outcome of this review by early 2025. We would then assess the new estimate's impact on

the incentive and would communicate this at the earliest opportunity so that the TOs know the wider impact this may have on investment decisions.

Definition of excluded or exceptional events

SSMC summary

- 4.38 In our SSMC we described what constitutes excluded and exceptional events, which are beyond TO control and therefore are not subject to a penalty under the ENS incentive.
- 4.39 Currently for an event to be classified as exceptional, the TO must submit a claim evidencing that the loss of supply event was beyond its control. The value of individual exceptional events can be small, and the cost of evaluating the claim may exceed the value of the claim itself. In our SSMC we considered the addition of a materiality threshold to prevent the submission of claims in these instances.

Summary of consultation responses

Overall definition

- 4.40 ETQ18 invited views on the current definitions for excluded and exceptional events and whether stakeholders would like to see any changes for RIIO-ET3. We received six responses, from the three TOs and three other stakeholders.
- 4.41 Most respondents, including the three TOs, were broadly supportive of the current definitions but several proposed refinements.
- 4.42 One stakeholder urged us to assess whether the mechanisms for excluded and exceptional events are operating as intended, given the number of events classified as excluded or exceptional in comparison to the incentivised events.
- 4.43 One TO found areas that were outside of its control but were not already captured in the current definitions, such as specific issues around access to private land, so wanted the definitions to be refined.

Materiality threshold

- 4.44 ETQ19 asked stakeholders whether we should introduce a materiality threshold for exceptional events. We received six responses, from the three TOs and three other stakeholders.
- 4.45 Stakeholders had mixed views as to whether a materiality threshold should be included, and in what form.
- 4.46 All the TOs stated that a materiality threshold would be suitable but signalled that claims below the threshold should still be excluded from the penalty (ie passed-through/self-declared). One TO suggested that a materiality threshold should be

introduced to ensure the level of scrutiny applied is proportionate to the value of the claim, focusing on reducing the regulatory burden. One TO suggested an appropriate threshold for self-declaration would be for events with a financial impact of under £200,000.

- 4.47 One stakeholder stated that it was unclear whether it is appropriate to add a materiality threshold for exceptional events as we had not presented evidence that demonstrates the scale of the problem that we are seeking to solve. The stakeholder set out that if a materiality threshold were to be added, it would not support the TOs being permitted to self-report exceptional events.
- 4.48 Other stakeholders considered that materiality thresholds could be suitable, one pointing to their use in the IIS in RIIO-ED2 and another to their mitigation of circumstances where the cost of assessing an event exceeds the value of the individual exceptional events.

SSMD decision and rationale

- 4.49 We will review the current list of excluded and exceptional events ahead of Draft Determinations. While we acknowledge the points raised, including that of land access issues, we consider that there may be a risk that the existing list is too broad. For example, one TO was able to claim 100% of its unsupplied energy as exceptional and excluded events across years one and two of RIIO-ET2.
- 4.50 We will also implement a materiality threshold to the ENS ODI-F in RIIO-ET3. In advance of Draft Determinations, we will work further to assess the form in which it will take.

Monitoring individual circuit availability

SSMC summary

- 4.51 Under the current ENS incentive design, only grid disruptions that result in the loss of supply to consumers register as an incentivised ENS event. However, substantial failures that threaten the integrity of the grid system supply, but do not result in widespread consumer outages, can appear to be minor incidents according to the current ENS metric. These faults can be costly and force consumers to unknowingly bear considerable risk of supply failure. If these events are not visible under the ENS incentive, we risk inadvertently disincentivising grid maintenance to prevent their failures and storing up risk for future consumers.
- 4.52 Our SSMC set out that we have been considering the introduction of mechanisms to provide a more accurate depiction of grid supply reliability, starting with a

proposed change in reporting requirements for the ESO to provide data on circuit performance.

- 4.53 We also asked if there were any alternative modifications to the ODI-F that stakeholders could suggest to address this challenge.

Summary of consultation responses

- 4.54 One stakeholder welcomed the focus on grid weakness, while all TOs were against the idea of making changes to the reporting requirements for ENS. One TO said there was a lack of clarity from us over what the changes may be and stated that no modifications were required to the ODI-F. The other two TOs commented that measuring circuit availability would risk driving perverse behaviours, as the system availability will naturally be reduced at times during RIIO-ET3 due to planned work and construction. One of these TOs also stated that the increased reporting requirements would increase the regulatory burden, with no benefit to us or consumers.

SSMD decision and rationale

- 4.55 We still consider that reform of the existing incentive may be needed in the long term. This will mean that we can best judge the reliability and potential risks of the network and therefore ensure that the network best serves the interests of current and future consumers.
- 4.56 We have concerns that the current ENS measurement approach may be concealing underlying asset management issues with respect to faulting equipment which does not ultimately result in a loss of supply event, and therefore not present a clear view of asset and performance risk potentially increasing.
- 4.57 To support a more robust analysis of this potential issue going forward, we consider a more disaggregated view of network availability is needed. This will make a distinction between planned and unplanned network being unavailable, eg where it was the result of a planned outage to connect a new generator or where it was the result of a network fault.
- 4.58 This remains an area we would like to explore further. As existing datasets would not provide us with enough information or time to make this considered decision, we will work with the ESO/NESO to retrieve various reporting metrics on individual circuit availability from the three TOs throughout the remainder of RIIO-ET2, and RIIO-ET3, in order to make a more informed decision revising the ENS ODI-F for subsequent price control periods.

ENS compensatory scheme (SHET only)

SSMC summary

- 4.59 In RIIO-ET1 and RIIO-ET2 we included a pass-through mechanism for SHET to provide payments to customers who experience interrupted power supply due to lower standard design of network in some parts of SHET’s network area.
- 4.60 In our SSMC we flagged our intention to continue to treat these costs as pass-through (as part of a general question on UMs at ETQ39).

Summary of consultation responses

- 4.61 We did not receive any responses regarding this mechanism, including from SHET.

SSMD decision and rationale

- 4.62 Following bilateral discussions with SHET we have decided to remove this mechanism in RIIO-ET3. SHET has indicated that the circumstances under which this mechanism was originally introduced (ie a lower standard design of network in some parts of SHET’s network area) are no longer relevant given its positive ENS performance in recent years.

Connections incentives

A new approach to RIIO-ET3 connections incentives

SSMC summary

- 4.63 The provision of timely new connections is a vital function of the electricity networks, especially as we transition to a decentralised and decarbonised energy system.
- 4.64 There are two connections incentives in RIIO-ET2: the Timely Connections ODI-F and the Quality of Connections Survey (QoCS) ODI-F.
- 4.65 In our SSMC we set out that in its current form, the Timely Connections ODI-F is focused on the processing of application volumes rather than the coordination of network offers.
- 4.66 We also described that the QoCS incentive was designed to ensure that a good quality of service would be delivered to connections customers. Customers are surveyed at common milestones, with a 1-10 satisfaction score. There is a target for all TOs of 7.7/10, with rewards and penalties for over- and under-performance.

- 4.67 In our SSMC we set out that QoCS participation levels were low across the common milestones, so questioned the degree to which customer satisfaction is currently being measured. We also explained that we do not consider that the rewards currently being provided by the incentive are reflective of the general dissatisfied sentiment of GB connections customers.
- 4.68 We noted the challenges that connections customers are currently facing and explained our intention to use the CAP “End to End Review” of the connections regulatory framework to directly inform any changes to RIIO-ET3 connections incentives. A policy consultation on the End to End review will follow later this summer.
- 4.69 Our SSMC noted general concern that the TOs’ performance in RIIO-ET2 is positive with regards to the connections incentives (ie they have all received rewards under the incentives), which contradicts the connections queue being the longest it has ever been and general dissatisfaction from stakeholders at the time it takes to connect to the network. This could, if it continued, slow the transition to net zero.

Summary of consultation responses

Overall approach

- 4.70 ETQ22 asked for views on the extent to which fundamental reform of the ET connections incentives is required and how best to approach that reform.
- 4.71 There was support from six respondents, including two of the TOs, that reform to the connections incentives is required.
- 4.72 The other TO commented that it was too early to comment on the extent of change required for the incentives but that they consider the incentives should continue into RIIO-ET3 with comparable strength to their current nature.
- 4.73 One TO suggested that we should commit to working with the TOs on how best to design appropriate incentives in the connections spaces.
- 4.74 Other stakeholders pointed out the interconnectedness of the connections issue, with links to ESO's reform work.
- 4.75 A DNO agreed that TO performance to date seems inconsistent with the unprecedented challenges faced in getting connections. It sees these challenges as being due to constraints on the transmission network and argued that there are limitations in each of the incentive mechanisms which may have created this inconsistency. It argued that the Timely Connections incentive does not judge the entire connections process and the QoCS has a limited range of respondents.

Timely Connections ODI-F

- 4.76 ETQ23 asked stakeholders if they had views on how the Timely Connections ODI-F could be reformed or replaced, to better capture the efficient coordination of network offers.
- 4.77 There were multiple suggestions for changes to the Timely Connections ODI-F.
- 4.78 One stakeholder suggested that it should measure the time taken at each stage, rather than the end-to-end process.
- 4.79 A TO pointed out that the ODI-F incentivises offers to be made quickly and suggested that the incentive should instead cover the length of time customers must wait for a physical connection.
- 4.80 Four stakeholders agreed that the design of the Timely Connections ODI-F should align with the reformed connections process.

QoCS ODI-F

- 4.81 ETQ24 asked if stakeholders had views on how the QoCS ODI-F could be reformed or replaced, to better capture the service that connections customer receive.
- 4.82 One TO suggested that the QoCS ODI-F should be more representative of customer satisfaction, and that the questions needed to be reviewed. It also pointed out that responses may be skewed after the connections reforms are implemented, such as when the outcome is favourable for the greater good and not the individual applicant.
- 4.83 Another TO supported retaining the ODI-F because it provides valuable insights, encourages ongoing improvement, amplifies the customer voice, and contributes to transparency and accountability internally and across the TOs.
- 4.84 The third TO pitched the idea of the ESO also having a measurement of customer satisfaction through the survey.
- 4.85 One stakeholder said that we should review the surveys to ensure that they contain adequate information for the respondent to offer their views. This same stakeholder stated that the targets should be recalibrated to consolidate performance improvements, as TOs generally outperform their target of 7.7/10.
- 4.86 Another stakeholder suggested that RIIO-ET3 could take a similar approach to the Major Connections Survey introduced for RIIO-ED2. This would include having the same survey provider for the three TOs.

SSMD decision and rationale

- 4.87 We are concerned that the existing RIIO-ET2 incentives have enabled the TOs to earn rewards at a time the transmission connections queue is at historically high levels with not uncommon instances of customer dissatisfaction. We have therefore decided to develop a new incentive structure to drive faster connections times and a more effective overall connections process, which will replace the two existing connections ODI-Fs. This will be developed as part of our End to End connections review to ensure consistency with wider, non-RIIO-ET3 related decisions taken under that review. As noted above, a policy consultation on the End to End review of the connections regulatory framework will follow later this summer. As the connections review is ongoing, we will consult on the development and calibration of this incentive later in 2024 and will ensure that it is in place by the start of RIIO-ET3. TO decision making with regards to network reinforcement may feature as part of the revised connections incentive, given how critical this is to reducing connections times.
- 4.88 Whilst the Timely Connections ODI-F has succeeded in driving timely connection offers to customers, it does not show the complete picture of the connections process. We are concerned that it is just incentivising the speed of processing rather than the overall speed of connecting.
- 4.89 We do not believe the QoCS ODI-F is achieving its intended purpose. The low numbers of responses at the later milestones do not allow for reliable pictures of customer satisfaction to be gathered and therefore we do not believe should form the basis of a financial reward or penalty. This could be indicative of the wider connections issue, as companies are being rewarded despite general dissatisfaction and an increasing queue.

SO:TO Optimisation ODI-F

Overview

- 4.90 The SO:TO Optimisation ODI-F began as a two-year trial (April 2021 - March 2023) incentive to encourage the TOs to provide solutions to the ESO to help reduce constraint costs in accordance with the STCP11-4 procedures.²⁸ Following

²⁸ The System Operator Transmission Owner Code (STC) is a suite of code documents that define the relationship between the TOs and the ESO. The STCP11-4 procedure is one of the STC documents and was designed to enable the ESO to buy a service from the TOs that help to reduce the costs of operating the GB ET network. STCP11-4 is an existing industry procedure used by the TOs and ESO to identify opportunities where enhanced services can help the ESO to reduce constraint costs effectively. Enhanced services being actions considered above and beyond the licence requirements of the TOs.

the completion of the trial period the ODI-F was amended to better serve consumers whilst still incentivising TOs to offer innovative solutions.²⁹

- 4.91 The SO:TO ODI-F has been largely successful at delivering substantial benefit through consumer cost reduction. Across the first two years of the trial period the TOs delivered 49 enhanced services and saved customers nearly £266 million (2018/19 prices), net of any rewards that the TOs received.³⁰
- 4.92 Given the success of the mechanism in mitigating network constraints and delivering substantial levels of consumer benefit through constraint cost savings, in our SSMC we proposed to retain the incentive for RIIO-ET3.

Refining BAU Activities

SSMC summary

- 4.93 We sought views from respondents on how we might retain the impetus behind the mechanism whilst taking a potentially more measured approach to what we define as enhanced services as the TOs gain additional experience and improve monitoring mechanisms.

Summary of consultation responses

- 4.94 ETQ25 asked what activities should be considered BAU under the SO:TO incentive.
- 4.95 One TO agreed that there should be a process for transferring certain solutions proposed under SCTP11-4 to BAU as part of the SO:TO incentive in RIIO-ET3. However, it suggested that this should be a phased process as it considered that the incentive would be inefficient if it were only to be incentivised once.
- 4.96 Another TO suggested that repeated services that can be provided by a TO may require different regulatory treatment. It said that while certain optimisation solutions may appear to be BAU they can still carry operational risks, which is imperative to take into consideration. The same TO viewed the incentive as critical to ensuring similar solutions can be delivered again in the future and alternative approaches may not be as effective. This TO also said that the TOs may not be sufficiently incentivised to develop a solution where it is only to be used once, and as such the potential for future use of the solution ensures that time and resources are remunerated.

²⁹ <https://www.ofgem.gov.uk/decision/decision-system-operator-transmission-owner-optimisation-output-delivery-incentive-riio-2>

³⁰ Gross constraint savings delivered between 2021 and 2023 are nearly £281m, with almost £14m of TO rewards paid and £1m of TO costs incurred. All figures in 2018/19 prices.

4.97 The third TO sought to differentiate between BAU activities the TOs would carry out as part of normal business activity to develop and maintain an economic, efficient, and coordinated transmission network, and enhanced services that go beyond normal business activities. It argued that these enhanced services should continue to be incentivised, whilst acknowledging that it would be willing to work with us and the other TOs on how enhanced services could be 'run down' to BAU.

SSMD decision and rationale

4.98 We intend to tighten the definition of what activities can be rewarded under the SO:TO incentive and of how activities will transition to BAU. We will seek to balance offering sufficient incentive for TOs to deliver these activities that generate net consumer value with potentially over-rewarding the delivery of activities that are evidently BAU and are, or have become, very low risk in nature.

4.99 We acknowledge the point raised by all TOs that first time use of enhanced services will carry a small degree of risk for TOs, and the purpose of the incentive is to remove that risk and encourage greater proactivity. However, we do not consider that that risk exists on all future interventions, which is why we remain committed to managing a glide-path to these activities being undertaken as BAU.

Incentive value

SSMC summary

4.100 Under the CSNP it is expected that the NESO's visibility of constraint management will increase and the difference between forecast and outturn constraint cost savings could decrease.

4.101 However, as this has yet to come into effect, we proposed in our SSMC to retain the incentive value being based on blended constraint cost savings, with the 90:10 sharing factor and the current windfall gain protection mechanism. We considered that, in the round, these elements of the ODI-F maximised consumer benefit without exposing them to undue risk.

Summary of consultation responses

4.102 ETQ26 asked for views on our proposal to retain the blended constraint cost savings, the 90:10 sharing factor, and the current windfall gain protection mechanism.

4.103 All three TOs were in favour of retaining the current blended constraint cost saving mechanism, offering up to 10% cost sharing with the TOs based on 50% of the NGENSO's forecast constraint savings plus 50% of the actual overturn

constraint savings. All three also support retention of the 90:10 sharing factor, and the current windfall gain protection mechanism.³¹

4.104 Two other respondents were in favour of keeping the blended constraint cost saving given the difference between forecast and outturn costs due to the weather conditions during the years the incentive has already been in operation.

4.105 A consumer group, however, felt that the current incentive reward system gave excess rewards to the TOs, commenting that in year 2 of the trial period, the TOs were able to earn over £8 million in incentive rewards compared to costs of £1 million. This respondent argued that the sharing factor could be adjusted to 95:5 without negatively impacting incentive properties.

SSMD decision and rationale

4.106 We intend to retain the incentive sharing value at 90:10, given the general support from consultation responses and the consumer benefits that the design of this ODI-F has delivered during RIIO-ET2.

4.107 We consider that our proposal to transition activities to BAU is a more appropriate means of reducing excess TO rewards under this incentive than reducing the incentive strength to 95:5, which could create a greater risk of disincentivising the positive TO behaviour that this incentive has driven during RIIO-ET2.

Wider SO:TO – CSNP interactions

SSMC summary

4.108 In our SSMC we discussed how the implementation of the CSNP and continuing development of the role of the NESO will benefit the issues of cost constraints on the network.

4.109 We set out that we expect the NESO's ability to forecast constraints to improve over time and some RIIO-2 enhanced services, like dynamic lines ratings, may evolve into standard RIIO services.

Summary of consultation responses

4.110 ETQ27 welcomed feedback on the SO:TO incentive scheme, and how we can ensure that it aligns with the long-term CSNP network planning and investments.

³¹ To guard against windfall gains, the incentive ensures that the blended reward, calculated from an equal weighting on the forecast and outturn constraint cost savings estimates, cannot exceed 10% of the forecast saving in the event that the outturn saving exceeds the forecast constraint cost saving.

- 4.111 One TO viewed the CSNP as needing to provide timely long term constraint cost forecasts that can feed into CBAs at project optioneering stage.
- 4.112 Another TO did not see the SO:TO Optimisation ODI-F and long-term network planning and investments as having any significant interaction. It viewed these two processes as being conducted on very different timescales. In its view, the SO:TO Optimisation ODI-F focuses on incremental changes to the TOs outage and delivery plans with a 1-2 year forward view, whereas the CSNP has a focus on significantly longer-term strategic network planning, and a far less detailed level.
- 4.113 The third TO argued that the SO:TO ODI-F will encourage and promote wider application of enhanced services and solutions provide by the TOs to support the NESO in balancing the GB network.

SSMD decision and rationale

- 4.114 We agree with the general view expressed by TOs that there are limited direct links between this incentive and the CSNP, in that the CSNP will focus on long term constraint relief whereas this incentive considers short and medium term relief.

New Infrastructure Stakeholder Engagement Survey ODI-R

RIIO-ET3 approach

SSMC summary

- 4.115 During RIIO-ET2, the TOs have been required to survey stakeholders impacted by new infrastructure projects on their experience in engaging with them.
- 4.116 The purpose of this was to drive the TOs to better meet the needs of local stakeholders impacted by ET networks, creating tailored engagement and enabling the TOs to improve this engagement in future.

Summary of consultation responses

- 4.117 ETQ28 asked for views on whether and how TO customer service performance should be incentivised or enforced during RIIO-ET3, over and above the incentives and obligations described SSMC.
- 4.118 One stakeholder suggested that we could introduce an incentive similar to the incentive on Connections Engagement in RIIO-ED1. Another suggested that the TOs could coordinate surveys between themselves, with us having oversight, and that these should capture overall satisfaction of customers along with areas of improvement for the TOs.

4.119 One TO stated that it does not consider that an ODI-F should hinge on a survey which could be highly subjective. The other TOs offered no new proposals but noted the link between frustrations with the connection process as a whole and low survey scores, saying that these low scores are not necessarily directly linked to TO performance.

SSMD decision and rationale

4.120 With the rapid expansion of the ET network planned during RIIO-ET3, we consider it is important to recognise the views of stakeholders who are most impacted by new infrastructure. Therefore, we have decided to retain the New Infrastructure Stakeholder Engagement Survey ODI-R for RIIO-ET3. We welcome views from stakeholders on how it can be improved in RIIO-ET3.

4.121 While appreciating the subjectivity of surveys of this subject area, a carefully designed survey should provide valuable insight into the stakeholder experience, particularly in light of the investment required over the RIIO-ET3 period and the foreseeable impact it will have on local communities. Retaining it as an ODI-R will ensure that no consumer money is at risk while still providing a valuable outlet for stakeholder views in the form of a robust and wide-reaching survey.

5. Cost of Service

- 5.1 The objective of cost assessment is to determine the efficient level of costs that enables network companies to carry out their activities and deliver an appropriate level of outputs for consumers. It is crucial that we develop a robust toolkit to ensure that the outcome of cost assessment reflects a balance between ensuring consumers get a fair deal now and in the future (by incentivising efficient, well-justified expenditure) and not being a blocker to the rapid pace needed to deliver net zero (by setting a funding framework that provides both certainty and adaptability to the TOs).
- 5.2 Additional challenges for RIIO-ET3 cost assessment include:
- the presence of multiple mechanisms to fund load related investments (eg ASTI, tCSNP), which calls for a strongly coordinated approach to avoid potential overlaps, inconsistencies and duplication;
 - how to account for the recent workforce and supply chain pressures, which are leading to cost inflation and longer lead times for project delivery; and
 - the extent to which historical data is useful to predict future costs and thus set allowances in such a changing environment.
- 5.3 Business plan submissions provide an essential evidence base to address these challenges. These submissions will allow us to better understand cost trends and identify potential structural breaks, but ideally also to resolve past reporting inconsistencies and thus enhance our ability to benchmark costs. Business plan information will also help us determine whether there is room to evolve the RIIO-ET2 approach or different assessment tools are needed.
- 5.4 More broadly, the ability to interrogate and analyse all the available data (both historical and forecast) is crucial to building a robust toolkit for cost assessment, in line with the principles set out in our SSMC. As such, we will not finalise the approach for RIIO-ET3 before final business plan submissions. Nonetheless, we have engaged extensively with stakeholders (and will continue to do so) through the Cost Assessment Working Groups (CAWGs) to develop cost assessment methodologies and tools for all cost areas. In this chapter we provide an update on progress made so far and set the direction of travel for the RIIO-ET3 cost assessment approach for baseline allowances. See Chapter 2 for cost assessment considerations within CSNP-F and load related re-openers.

Load and non-load capex

SSMC summary

- 5.5 The RIIO-ET2 toolkit approach for load and non-load related capex included a review of the needs case, followed by either unit cost benchmarking where viable or engineering review of asset costs. Other related costs and risk and contingency costs were qualitatively assessed. The engineering-approved projects and volumes were integrated with assessed costs into the Project Assessment Model (PAM). Issues with data reporting meant the assessment of SHET and SPT costs had a stronger reliance on comparative assessment, with NGET subject to a more qualitative assessment. In RIIO-ET2, load and non-load capex allowances amounted to £5.8bn, ie 64% of total baseline allowances (which were around £9bn, 2018/19 prices).
- 5.6 In our SSMC we welcomed views on how this approach would need to change or at least adapt to current circumstances (ETQ31). We recognised the extreme market volatility from macroeconomic events and implications for supply chains, which are particularly relevant to load and non-load capex.
- 5.7 In our SSMC, we also stated our intention to review the cost assessment approach for projects with shared drivers, accepting that network investment with multiple drivers would not necessarily be captured under tCSNP2 and CSNP (ETQ32).

Summary of consultation responses

Cost assessment for load and non-load capex

- 5.8 We received six responses to ETQ31. Most stakeholders highlighted the ongoing issues of disrupted supply chains and the effects these have had on price volatility within the market. Stakeholders also suggested mechanisms that may help address price volatility and the uncertainty it creates. These included reviews of network companies' allowances, automatic cost adjustment mechanisms to re-baseline allowances and a 'stepped TIM' mechanism that could mitigate the risks to network companies and consumers of highly volatile prices. One TO suggested the use of market tested costs and rates to overcome the issue of historical cost information becoming less relevant to model future costs.
- 5.9 Numerous stakeholders stated that if Ofgem were to continue with the PAM, it needed improvement and to be used more sparingly. Stakeholders suggested tighter definitions and better cross-sector reporting, with the PAM being used where the data for benchmarking was proven to be statistically valid and robust such as in areas of low-price volatility and where work is repeatable.

5.10 Respondents also suggested different approaches to adapt the load and non-load capex assessment process. These included qualitative assessment methods. Some TOs suggested a greater focus on engineering and technical review. Other stakeholders suggested looking at demonstrating effective company action rather than relying on invalid historical costs. Proposals included the assessment of procurement and commercial strategies, or random stratified sampling where Ofgem would randomly assess a handful of projects based on common drivers to determine an efficient allowance percentage versus submitted costs to be applied to all projects within a given asset category.

Cost assessment for shared drivers projects

- 5.11 We received five responses to ETQ32, of which three were from TOs and the remainder from other stakeholders.
- 5.12 Respondents highlighted support for retaining the same approach to shared drivers projects as single driver projects. Three respondents noted that they did not think any difference in approach was required and that treatment should be consistent across projects for both load and non-load regardless of the number of drivers.
- 5.13 One respondent suggested that the RIIO-ED2 process could provide insight for RIIO-ET3 where there were multiple drivers of expenditure for a project. They also noted that the cost assessment process at the totex level negates the need to consider multiple drivers because totex inherently captures trade-offs between cost categories and reduces the issue of where and how to apportion costs across differing categories where multiple drivers are present.
- 5.14 One respondent suggested that Ofgem should provide an avenue for network companies to evidence that they have provided the most cost-efficient solutions given the applicable drivers and noted EJPs as a potential vehicle for this. Another respondent suggested that an assessment of shared drivers projects should place a high weighting on EJPs which should include needs case, optioneering and justification of costs.
- 5.15 One respondent recommended that cost assessment of shared drivers projects should follow existing approaches within the ET regime such as MSIP, LOTI and ASTI. It noted that various factors such as assessment for baseline funding, needs case approval triggering PCF and re-opener triggers could be identical between project types regardless of number of drivers.
- 5.16 One respondent asked Ofgem to consider how a non-load project could be transferred to the NARM regime if circumstances changed.

SSMD decision and rationale

- 5.17 We intend to broadly retain a toolkit approach to cost assessment for load and non-load capex. We are minded to retain unit cost benchmarking for the subset of costs where this is viable, and we are open to incorporating market tested data into our methodology to make unit cost assessment more robust at a holistic level. We will review whether other methodological approaches could be considered as part of the cost assessment toolkit. We further intend to retain the engineering review throughout the process, incorporating the lessons learnt from the RIIO-ET2 price controls. As part of the development of our assessment methodology, we will also consider the role of risk and contingency allowances in the context of other existing risk management policy levers, with the aim to avoid any potential duplication of mechanisms. We will continue to engage with stakeholders on this area.
- 5.18 As part of our assessment approach to load and non-load capex, we also intend to factor in the market volatility and uncertainty highlighted by stakeholders through the consultation. Our current view is to potentially allow appropriate competitively tendered costs, subject to needs case approval and further scrutiny. Where there are concerns about historical costs being less valid or reliable, we will look to gain insight from market tested costs based on a wide set of available sources to complement our analysis.
- 5.19 Moreover, when developing our methodology to determine baseline allowances for load and non-load capex, we will look to identify costs that are recoverable through other mechanisms such as ASTI, CSNP-F and the LRR and ensure a coherent approach that does not overlap with existing funding mechanisms for large load projects.
- 5.20 We do not expect to use a different approach to cost assessment for shared drivers projects, consistent with stakeholder responses to our SSMC. While there may be differences in the number and scale of drivers for these projects, at this stage we have not received any evidence to support the notion that costs for project investment are significantly different from traditional single-driver projects. Unless further evidence suggests otherwise, we expect the broader capex toolkit will remain appropriate to assess these projects.

Non-operational capex

SSMC summary

- 5.21 In the SSMC, we described the RIIO-ET2 cost assessment approach for non-operational capex. Property and small tools, equipment, plant and machinery

(STEPM) costs were assessed using historical run rates and ratio benchmarking, supplemented by EJPs. Vehicles and Transport costs were assessed using historical trend analysis and volume assessment. We employed an expert review for Information Technology & Telecoms (IT&T). In RIIO-ET2, non-operational capex allowances amounted to £0.4bn, ie 4% of total baseline allowances.

- 5.22 At SSMC, we sought views on the assessment approach to non-operational capex (ETQ33).

Summary of consultation responses

- 5.23 We received responses to ETQ33 from the three TOs. The TOs all supported using the RIIO-ET2 assessment approach for Vehicles and Transport and IT&T. One TO noted that the nature and scale of relevant investment categories lends itself to a proportionate approach based on RIIO-ET2 methods. One TO considered that expert review remains the most appropriate method as non-operational capex includes specialist, bespoke costs. Another TO asked for guidance on the assessment criteria and scope of the expert review for IT&T.
- 5.24 Two TOs agreed that the submission of Property costs should be supported by EJPs and CBAs (with wide availability of commercial market rates for property), while the other TO noted that easements within Property should be treated as pass-through.
- 5.25 One TO suggested moving STEPM to Network Operating Costs (NOCs) and aligning the cost assessment approach with other NOCs categories, given that it is tied to operational activity.

SSMD decision and rationale

- 5.26 We are minded to broadly retain the RIIO-ET2 approach for non-operational capex, unless business plan submissions and further evidence suggest otherwise. At this stage, we consider that historical trends will likely reflect future trends for Property and Vehicles and Transport and might supplement historical run-rate and ratio benchmarking analysis with a review of EJPs and CBAs. Our current thinking is that easements will be assessed within the model, but we still intend to review any EJPs submitted in support of these costs and volumes alongside this assessment.
- 5.27 We agree that IT&T costs are bespoke and technical and will likely require expert review. We are currently developing a potential assessment framework for IT&T. We will continue to engage with stakeholders on this area.

- 5.28 We explored the option of combining the reporting of non-operational and operational IT. However, at a CAWG, one TO noted the different treatment of non-operational and operational IT meant it would not be logical for them to be combined. Given this challenge, we have decided against this. We will instead request that operational IT is reported as part of Operational Technology. We will consider through engagement with TOs whether the Operational Technology asset list should be applied across the Business Plan Data Templates (BPDT).
- 5.29 The proposal of moving STEPM to NOCs was further discussed at CAWGs. We agree with the proposal and consider STEPM costs sit best within the NOCs other table. We have otherwise made no changes to RIIO-ET2 data requirements for non-operational capex.

Network Operating Costs (NOCs)

SSMC summary

- 5.30 In the SSMC, we noted that at RIIO-ET2, the cost assessment approach for NOCs consisted of unit cost benchmarking when both historical and forecast volumes were available, and an average annual cost approach when either historical or forecast volumes were unavailable. We relied on EJP information when neither of those approaches could be applied, such as where a TO proposed works in the RIIO-ET2 period without either a historical equivalent or comparator in the RIIO-ET1 period. In RIIO-ET2, NOCs allowances amounted to £0.8bn, ie 9% of total baseline allowances.
- 5.31 Discussions in working groups following RIIO-ET2 Final Determinations (ie before the start of RIIO-ET3 CAWGs) focused primarily on whether activities and drivers behind expenditure remain the same moving to RIIO-ET3 for comparison and reporting purposes. The TOs suggested that some areas with limited historical data may need further consideration to find appropriate data collection and assessment methods for RIIO-ET3.
- 5.32 At SSMC, we sought views on the assessment approach to NOCs (ETQ34).

Summary of consultation responses

- 5.33 We received four responses to ETQ34. The three TOs broadly agreed that the RIIO-ET2 cost assessment approach was not fit for purpose for RIIO-ET3, although one noted that the approach worked for Inspections, Repairs and Maintenance and Vegetation Management. One TO noted that assets being installed are larger and more complex and that volumes of inspections, maintenance and repairs are likely to increase proportionally to the number of assets. One TO considered that the RIIO-ET2 cost approach failed to reward unit

cost reductions and to recognise the dynamic nature of networks. The other TO suggested that the existing cost categories should be grouped into fewer, high-level categories to help remove categories with statistically insignificant volumes and better facilitate benchmarking between TOs.

- 5.34 All TOs supported a move to a tailored proportionate and qualitative assessment approach. One TO noted that the focus should be on categories with the highest total expenditure, and that comparing outturn RIIO-ET2 costs to RIIO-ET3 cost forecasts per TO and reviewing the supporting evidence should provide a high confidence benchmark. One TO argued that a three-stage qualitative review targeted on categories which drive value for money for consumers was a more proportionate and transparent approach than that used at RIIO-T2.
- 5.35 Two TOs agreed that Long-term Service Agreement (LTSA) and Service Level Agreement (SLA) costs should be reviewed separately. One TO noted that LTSA costs in particular will be of significant materiality and assessing these at the same level of other NOCs would not be a proportionate approach. One TO suggested that engineering reviews should look beyond the raw data for low volume, asset-specific operational costs which are subject to LTSAs. The other TO considered that qualitative assessment may be required where there is a statistically insignificant volume of repeatable activities and that outliers should be removed, and a separate qualitative assessment performed.
- 5.36 Two TOs agreed that RIIO-ET1 data should not be used for NOCs assessment. Both argued these old costs should be invalid and noted that RIIO-ET1 data was captured at a very aggregated level so any attempt to disaggregate would lead to inaccurate unit cost data.
- 5.37 One DNO noted that the cost assessment approach for NOCs should consider that inspections and maintenance costs are often the most effective way of ensuring longevity of assets and that investment decisions should take into account that these costs are often facilitators of cost reductions in other parts of the cost base.

SSMD decision and rationale

- 5.38 Since SSMC publication, we have engaged extensively with the TOs on NOCs. We updated the RIIO-ET2 NOCs models and shared with TOs for review and comment. This informed changes we have made in collaboration with the TOs on the BPDTs.
- 5.39 On LTSA and SLA costs, we agree that they might warrant a separate assessment from the rest of NOCs. To test this, we will ask TOs to submit data on them in a separate BPDT table.

- 5.40 We note concerns about the level of aggregation of reporting and the perceived invalidity of RIIO-ET1 costs. We have worked with TOs on the asset possibility list for the Faults, Inspections, Repairs and Maintenance BPDT tables, and our current thinking is that reporting will broadly match the level of aggregation of the RIIO-ET2 NOCs models and asset classes will be more aggregated than at RIIO-ET2. This will allow us to have a long, consistent time series for the analysis.
- 5.41 We note concerns around the efficacy of the RIIO-ET2 models and will amend the models so that they match the level of aggregation of the BPDTs. After aggregating reporting and separating the high-materiality LTSA and SLA costs, we consider that NOCs cost categories should contain comparable data so there should be value in carrying out unit cost benchmarking.
- 5.42 We are considering combining unit cost benchmarking with expert review. We think there may be merit in a staged expert review, with more focused review on categories with the highest expenditure or that drive value for money for consumers. We are currently developing the framework for this. We will continue to engage with stakeholders on this area.
- 5.43 We agree that inspections and maintenance can be facilitators of cost reductions across the cost base.

Indirect costs

SSMC summary

- 5.44 In the SSMC, we summarised the RIIO-ET2 cost assessment approach for indirect costs, where we used econometric benchmarking for most categories with a few cost categories - IT&T, insurance, operational training - either done via expert review or separately assessed. In RIIO-ET2, allowances for indirect costs amounted to £1.9bn, ie 21% of total baseline allowances.
- 5.45 TOs raised concerns that the use of some historical data, previous cost drivers, exclusions, and adjustments made when setting the RIIO-ET2 price control may no longer be appropriate for RIIO-ET3 due to the changing landscape in the sector.
- 5.46 We set out in the SSMC that TOs suggested further disaggregation and clarification of cost definitions to reduce ambiguity and increase quality of cost submissions. A review of appropriateness of historical data was also welcomed. Given this, collaborative exercises to test historical adjustments for forecasted RIIO-ET3 costs were undertaken, which identified that while on the whole historical exclusions and adjustments remain relevant, there may be merit in reviewing the way we assess these in future.

- 5.47 We summarised discussions at CAWGs held before SSMC. At these CAWGs, the appropriateness of our cost drivers, particularly Modern Equivalent Asset Value (MEAV)³² as a cost driver of indirect costs was challenged on whether it can reflect the ongoing scale and pace of change needed in the sector. The TOs suggested that MEAV should be a lagging indicator of scale, with increases only recognised after the point of energisation rather than when capex is incurred. Looking forward, it was suggested that using different asset classification could be a simpler way to estimate MEAV.
- 5.48 At SSMC, we sought views on the assessment approach to indirects (ETQ35) and the use of MEAV as a scale driver (ETQ37).

Summary of consultation responses

- 5.49 We received four responses to ETQ35 (indirects) and five responses to ETQ37 (MEAV).
- 5.50 At a broad level, TOs collectively supported further splitting closely associated indirects (CAIs) into more granular categories. The principle for this split was that there is either a 'very' strong relationship with the delivery of physical infrastructure investment, or a 'not so' strong relationship (otherwise referred to as 'other'). One TO noted a potential split of 'very' CAI for the growth programme versus network maintenance respectively for the 'other' CAI. It suggested 'not so' CAI be assessed through econometric modelling, and that 'very' should be assessed as part of the load and non-load capex assessment, allowing Ofgem to consider the entire project cost, rather than just at a category level. This would include re-openers where companies would provide indirect project costs with submissions.
- 5.51 Alternatively, one TO suggested a CAI split to come from an 'opex' and 'capex' split from the Regulatory Reporting Packs (RRPs), proposing the 'capex' CAI assessment to conjoin with contractor indirects alongside direct project costs, with the aim of reflecting reality more accurately. The TO suggested the 'opex' CAI be used alongside the business support costs (BSCs).
- 5.52 A DNO encouraged any modelling results to be considered within the context of activities to give a rounded view of efficiency. It also suggested BSC modelling should be considered at a group, as opposed to licensee level.

³² Modern Equivalent Asset Value (MEAV) is the product of asset volumes and costs and helps explain the size and complexity of a network. Typically, a larger network will have a higher MEAV and a higher totex allowance requirement to manage and operate that network.

- 5.53 In regard to contractor indirects, all TOs voiced concerns. These included issues in restatement which could reduce data comparability, both between companies and historically, which could create poor quality data. TOs requested clear definitions for contractor indirects and asked Ofgem to be vigilant on the potential limitations of forecast data.
- 5.54 The consensus from the consultation responses was the MEAV cost driver remains suitable overall but requires some amendments. TOs generally noted issues with standardisation of the MEAV driver and suggested changes to the weighting of assets and the creation of a standardised unit cost, with two TOs proposing a simplified asset category to create a simplified network scale metric. Some respondents reiterated their concerns about the lagging characteristic of the MEAV driver, with one TO suggesting an offset MEAV driver. One DNO and one TO suggested relevant exclusions, and a DNO suggested Ofgem should look to exogenous cost drivers to control for indirect cost differences where possible.

SSMD decision and rationale

- 5.55 Our current position agrees with stakeholder responses to move to assess indirects at a more granular level than was performed at RIIO-ET2. We will however consider factors that may affect the viability of this approach. The TOs have raised concerns around the potential impacts of both the reporting of data (eg contractor indirects) and qualitative aspects of the data reported (eg undertaking activities not completed historically). Though we consider more granular assessment our current direction of travel, we intend to review our position following business plan submissions.
- 5.56 In an environment where capex unit costs have increased above inflation and continue to be volatile in real terms, this may inadvertently inflate indirect costs as currently the monetary value of capex is the proxy for the volume of capex. We will look to take appropriate steps to protect consumers from unnecessary indirect cost increases that may result from this. As part of this, we are exploring the ability to focus on the volume elements for drivers of indirect work.
- 5.57 We intend to retain the use of expert review in RIIO-ET3 for IT&T costs, as well as separate assessments for areas such as insurance and operational training where appropriate. We are open to expanding the use of expert review for indirect costs beyond IT&T and will consider if this is suitable at a later stage.
- 5.58 Regarding the use of MEAV as a scale driver in indirect costs models, we will continue the analysis started as part of CAWGs and test models including MEAV as a lagging indicator. We will also investigate standardising unit costs for MEAV.

Other costs

SSMC summary

5.59 Other costs consist of physical security and cyber security. In the SSMC, we noted that the RIIO-ET2 cost assessment approach for physical security was the same as non-load related capex except that the needs case for new sites was approved by government. RIIO-ET2 cyber security costs were separately assessed. In RIIO-ET2, allowances for other costs amounted to £0.2bn, ie 2% of total baseline allowances.

5.60 At SSMC, we sought views on the assessment approach to other costs (ETQ36).

Summary of consultation responses

5.61 We received four responses to ETQ36. All TOs broadly agreed with retaining the RIIO-ET2 approach for other costs. On physical security, one TO noted that the cost assessment should be an evolution of prior approaches. One TO agreed that costs should be assessed as per capex, with the needs case reviewed and costs assessed bottom-up based on latest market rates, following a review of each TO's procurement strategies. The other TO stated that both physical security and cyber security costs would continue to need individual cost assessments, with a third-party consultancy to independently assess the cost assessment if required. One DNO discussed business support modelling in response to this question, which we refer to in paragraph 5.52.

5.62 On cyber security, two TOs agreed that this should continue to be separately assessed through an expert review.

SSMD decision and rationale

5.63 We intend to retain the RIIO-ET2 approach for physical security. Where costs are certain, we consider that baseline allowances are appropriate. A re-opener will still be required to adjust revenues following government mandated changes to network site security requirements. We will review later in the RIIO-3 process whether third-party consultancy will be required for the assessment of these costs.

5.64 Cyber Security is included in other costs but is discussed in Chapter 9 of the Overview document.

Market volatility and supply chain challenges

SSMC summary

5.65 In our SSMC, we recognised that extreme market volatility over recent years had impacts on the TOs' supply chain, consequently leading to cost implications. We

committed to assessing whether observed variances could be defined and addressed via existing mechanisms or whether we needed to amend our cost assessment approach in other ways, for example by placing a greater emphasis on cost forecasts.

- 5.66 At SSMC, we sought views on how the cost assessment approach could address market volatility and supply chain challenges (ETQ38).

Summary of consultation responses

- 5.67 We received six responses to ETQ38 of which three were from TOs and the remaining from other stakeholders.
- 5.68 One stakeholder agreed that supply chain challenges were a key factor to consider for the price control and noted increasing costs for raw materials and key equipment impacting global supply chains. It suggested using indices, specifically the BEAMA monthly index, for supply chain costs to guide Ofgem's view of key drivers.
- 5.69 Responses from two DNOs suggested that setting ex ante allowances did not need specific mechanisms and suggested that robust Real Price Effects (RPEs) would be preferred. They also suggested an in-period mechanism could be used where RPEs did not capture actual market costs and concluded by asking Ofgem to set out how we would assess RPEs for ex-post assessment, particularly noting that changes in market conditions would impact cost assessment at time of output delivery compared to when allowances were set.
- 5.70 All TOs noted that RPEs could be used to address cost issues. One response suggested that a UM could be used to protect network companies from uncapped risk while providing an incentive to out-perform and deliver efficient outcomes. They further suggested using a cap and collar approach on efficiency sharing which could be calibrated with observed impacts of market volatility which they state has outstripped inflation and current RPE indices.
- 5.71 One response commented that capex and NOCs assessment should take into account market volatility. They also suggested that a price adjustment be introduced to protect network companies from the effects of inflation, exchange rate fluctuations and market shocks.
- 5.72 One response noted adaptations were needed in light of increased market volatility. It suggested that cost assessment for re-openers should allow for early contract costs to be indexed to avoid disadvantaging suppliers, and capex cost

assessment should use more qualitative and bespoke assessment where historical costs were not reliable.

SSMD decision and rationale

- 5.73 We broadly agree with consultation responses that RPEs should be used to address market volatility. We are continuing engagement with stakeholders to ensure our cost assessment framework appropriately captures the increased market volatility and supply chain challenges occurring within the sector. We will continue to work to ensure that our approach to RPEs remains fit for purpose in the current market environment, including engaging with TOs and across sectors to identify and implement improvements to the form and content of the RPEs framework and the underlying indices used.
- 5.74 As part of our ongoing engagement with stakeholders, we will also explore the suggestions made in the SSMC responses to amend cost assessment for re-openers to consider indexation of supplier costs set at the outset of re-opener applications. As part of this, we will aim to ensure we do not implement indexation mechanisms that overlap with existing ones to avoid any double count.
- 5.75 We are also exploring how best to address supply chain challenges and invite companies to include evidence of early market engagement and signalling of bulk or advanced procurement plans within their business plans. TOs need to provide clear evidence in their business plans of how they are mitigating price volatility with the supply chain and what the prevailing market terms are.

UMs in RIIO-ET2

SSMC summary

- 5.76 In our SSMC we listed a number of UMs implemented in RIIO-ET2 which, depending on their potential relevance for RIIO-ET3, we proposed to remove, review or retain (ETQ39).

Summary of consultation responses

- 5.77 We received six responses to ETQ39. Stakeholders broadly agreed with the proposal to remove UMs only relevant to the RIIO-ET2 period, as well as with the proposal to review others that will likely be needed for RIIO-ET3. A consumer group also added that it would expect robust evidence for the retention of RIIO-ET2 UMs.
- 5.78 More generally on the UM framework, one TO supported the need for a strong, flexible and fast-moving framework. A DNO promoted simplification as a driver for UMs and highlighted the importance of looking at the UMs package holistically

(eg interaction with ASTI and other mechanisms) while still recognising sectoral differences, expected to be more pronounced in RIIO-3 compared to RIIO-2.

- 5.79 On the specific UMs listed, one TO proposed to roll-over some of the RIIO-ET2 UMs and introduce new UMs (eg civils re-opener). Another TO raised concerns around replacing MSIP and highlighted the need to ensure the replacement mechanism includes all the relevant drivers. The TO also proposed to use the notification process used in ASTI instead of re-opener windows and to look at total project costs when designing re-openers. A third TO agreed with the list of UMs proposed to be removed because the projects would complete in RIIO-ET2, but flagged that removal might not be appropriate for the Tyne Crossing Re-opener, as the project might not be completed before RIIO-ET3 starts. The TO also agreed with the need to review the remaining UMs, with a focus on increased flexibility and removal of the downside-only nature of some mechanisms.

SSMD decision and rationale

- 5.80 For each UM, Table 8 summarises our decision or direction of travel for RIIO-ET3, or signals where more information can be found. Some of the areas that were covered by ETQ39 in our SSMC are now covered in Table 7 of Chapter 3. Chapter 8 of the Overview Document for our decision on our general approach to UMs.

Table 8: SSMD decision on RIIO-ET2 UMs / outputs not covered in previous chapters

UM Type (TO)	UM Name	SSMD decision / ET Annex location
Re-opener (All TOs)	Access and Charging Reform re-opener	We have decided to retain our SSMC position and remove this re-opener for RIIO-ET3 because the Access SCR was finalised in 2022. However, we will keep options for a similar re-opener under consideration in the event of future changes to the charging regime. The option for a future re-opener was welcomed by one TO, who also highlighted the need for the re-opener to be symmetrical.
Pass-through (All TOs)	Temporarily Physical Disconnection Costs	We have decided to retain our SSMC position and continue to treat these costs as pass-through. One TO supported the proposal.
Re-opener (All TOs)	Medium Sized Investment Projects (MSIP)	See Chapter 2 for general approach to RIIO-ET3 LRE, which covers the functions of this RIIO-ET2 mechanism.
PCD (All TOs)	Wider Works	See Chapter 2 for general approach to RIIO-ET3 LRE, which covers the functions of this RIIO-ET2 mechanism.
Volume Driver (NGET)	Incremental Wider Works	See Chapter 2 for general approach to RIIO-ET3 LRE, which covers the functions of this RIIO-ET2 mechanism.
PCD (NGET)	Generation Related Infrastructure	See Chapter 2 for general approach to RIIO-ET3 LRE, which covers the functions of this RIIO-ET2 mechanism.
PCD (SHET, SPT)	Shared Schemes	See Chapter 2 for general approach to RIIO-ET3 LRE, which covers the functions of this RIIO-ET2 mechanism.
Volume Driver (SHET)	Legacy Baseline Connections	See Chapter 2 for general approach to RIIO-ET3 LRE, which covers the functions of this RIIO-ET2 mechanism.

ET Business Plan Data Templates

SSMC summary

- 5.81 In our SSMC, we set out our expectation that we would ask for similar data for the RIIO-ET3 BPDTs that we previously collected as part of the RIIO-ET2 RRP and BPDTs.
- 5.82 We also noted various areas that could change including, but not limited to, data that informs policy or our cost assessment approaches, reporting requirements and the BPDTs' format itself.
- 5.83 At SSMC, we sought views on current reporting and how this may be adapted for RIIO-ET3 (ETQ40).

Summary of consultation responses

- 5.84 All three respondents to this question provided views on multiple areas pertaining to the BPDTs.
- 5.85 Two TOs highlighted concerns with the data split for contractor direct and indirect costs, noting that the split would lead to unreliable data reporting and that there was a lack of stability with changing definitions. Another respondent noted that our underlying principle underpinning the independence of contractor direct and indirect costs was inaccurate and that they are reflective of business models of contractors and thus, should not be separated on a broad basis.
- 5.86 One respondent suggested better tailoring of the BPDTs to reflect project level or modular treatment of cost items which face higher volatility. They also recommended integration with the EJPs and CBAs to improve readability and understanding of the cost assessment process.
- 5.87 Two of the responses noted factors to be considered for capex relating to issues over the resources required to collate cost category data, the use of internal estimates leading to limited value in benchmarking and the inappropriateness of providing phased costs at asset level.
- 5.88 One response noted factors to be considered for indirects relating to lack of current differentiation for sources of spending for indirects sub-categories and a broader concern about retrospective adjustments that the TO would need to make.
- 5.89 One response noted suggestions relating to the frequency, definitions and date range of cost categories within the RRP. While this was not explicitly consulted on, we have considered these suggestions where they have an impact on development of the BPDTs.
- 5.90 Lastly, one TO asked Ofgem to make a decision on cost assessment methodologies for RIIO-ET3 based on draft BPDTs submission in advance of the final business plan submissions.

SSMD decision and rationale

- 5.91 Our approach to creating the BPDTs remains broadly unchanged from our SSMC position and the templates largely collect the same granularity and scope of information as detailed within the RIIO-ET2 RRP and BPDTs save for where developments on policy or cost assessment necessitate changes or additions. These developments have been highlighted in the relevant cost categories sections in this document.

- 5.92 A key factor in developing the BPDTs has been using established definitions within previous regulatory submissions to ensure that TOs are familiar with the cost items and are already collecting this information. Exceptions to this have been made for cases where changing cost item definitions are sound from an engineering and cost assessment perspective. Consequent to this approach, we have developed the BPDTs to accommodate existing cost categories rather than potentially making significant changes to allow for modular or more granular treatment of costs that experience higher volatility. For the exceptions noted earlier, we have engaged with the TOs through our cost assessment working groups to facilitate this development and changes in definitions.
- 5.93 We have retained the BPDTs' format and associated reporting framework as we do not consider the proposed change would be proportionate for the purpose of data collection. We have also incorporated views, as noted in the consultation responses, on indirect costs into our cost assessment methodology which subsequently impacted our BPDTs. More information on the methodology changes can be found in the relevant sections of this chapter.
- 5.94 In addressing the responses that noted factors to be considered for capex and the associated challenges with reporting these costs, we agree that the reporting request does pose a challenge, but we take the position that there is merit in collection of this data for use in providing inputs into benchmarking and broader cost assessment overall. Following extensive internal and external engagement, we also note that we do not intend to change the asset list and definitions to maintain continuity of data collation and reporting.
- 5.95 We do not believe it is appropriate to make a decision on cost assessment based on the draft BPDTs submissions. We will use this submission to observe the quality of the data received, understand the movement and handling of TO costs and attempt to place the submissions within our cost assessment framework, testing the effectiveness of the cost assessment toolkit under development. However, there is scope for the data to change between the draft and final submissions so we will reserve our decision on cost assessment methodology upon receipt of the final BPDT submissions.

Next Steps

- 5.96 Following network companies' draft BPDTs submissions, we will resume engagement with stakeholders through the CAWGs to continue to develop our toolkit. We will not finalise our approach to cost assessment for RIIO-ET3 before network companies submit their final business plans.