



## Annual report: Electricity Transmission 2024-25

**ofgem**

Making a positive difference  
for energy consumers

## Executive Summary

The Government's Clean Power 2030 (CP2030) mission and the longer-term goal of net zero by 2050 demand a once-in-a-generation upgrade of our energy infrastructure, one that must be delivered at pace, with precision, and with consumers at its heart.

The transformation is unprecedented. It requires an acceleration of investment in networks, reforming the connections process to unlock timely access to the grid, and ensuring our regulatory frameworks are fit for purpose in a rapidly evolving energy landscape. It also requires companies to uphold the highest standards of stewardship over existing infrastructure, delivering world-class levels of system reliability and customer service while adapting to new demands.

Important progress has been made this year. Implementation of the connections reform package is reshaping how projects access the grid, prioritising those that are both ready and needed under the CP2030 plan. These reforms are essential to reduce waiting times, align the queue with system need, and restore investor confidence - critical to ensuring decarbonisation projects connect in time.

We<sup>1</sup> are also advancing our regulatory approach to expedite approvals and accelerate network deployment—ensuring infrastructure is built ahead of need. Through mechanisms like the ASTI framework<sup>2</sup> and Advanced Procurement Mechanism<sup>3</sup>, we enable companies to act early, secure supply chains, and deliver infrastructure required to meet future demand.

These issues are also central to our RIIO-3 price control decision<sup>4</sup>. Capital investment in electricity transmission alone may exceed £70 billion over the RIIO-3 period, with upfront funding already approved for projects identified as essential by the National Energy System Operator (NESO).

Investment alone does not guarantee success. We must ensure consumer funding spent delivers value. Consumers must have confidence that investments funded via their energy bills are being managed efficiently. Our annual monitoring plays a vital role in this process—rigorously assessing progress, embedding safeguards against inefficient costs, and reviewing performance. The comprehensive review set out in this report demonstrates our commitment to securing value for consumers.

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<sup>1</sup> The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

<sup>2</sup> <https://www.ofgem.gov.uk/decision/decision-accelerating-onshore-electricity-transmission-investment>

<sup>3</sup> <https://www.ofgem.gov.uk/decision/electricity-transmission-advanced-procurement-mechanism>

<sup>4</sup> <https://www.ofgem.gov.uk/decision/riio-3-final-determinations-electricity-transmission-gas-distribution-and-gas-transmission-sectors>

## Network company performance under RIIO-T2

The early stages of RIIO-ET2<sup>5</sup> were marked by lower-than-expected delivery, driven by wider market pressures including contractor and supply chain constraints and limited system outage availability. Transmission Owners (TOs) have since responded by ramping up activity across multiple programmes, creating an uplift in delivery as the period has progressed.

The challenge now is maintaining this increased rate of activity to stay on the current performance trajectory.

All TOs anticipate a significant ramp-up in activity during the final year of RIIO-2 to more closely align spend with allowances. However, delivery delays have created a compressed schedule and a challenging environment in which to realise further acceleration and uplift in delivery.

Success will therefore depend on (i) effective outage management and delivery strategies to mitigate uncertainty around outage availability and operational readiness, and (ii) improved intervention and collaboration to incentivise prioritisation of high-value projects.

We remain concerned over the lower-than-anticipated levels of asset intervention across all networks, and the potential this has for heightened asset deterioration and the risk of reduced system resilience. We are also cautious about the level of confidence that can be placed in company forecasts projecting increases in intervention volumes in the final year of the price control period, given the historic trend of under-delivery to date.

TOs have everything they need within the regulatory framework to deliver on this – now they need to respond. Ofgem will maintain close oversight of progress, with particular focus on:

- delivery confidence for Load Related and Non-Load Related programmes to ensure the highest standards of stewardship over existing infrastructure continue to be met and maintained.
- the ability to balance competing priorities as work ramps up on multiple fronts. Where delivery falls short, funds will be returned to consumers.
- enhancing the governance and transparency in reporting indirect costs, reinforcing accountability and cost efficiency.
- maintaining high levels of asset health, and we will be increasing our assurance activity on asset management systems and the condition of equipment and plant in service.

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<sup>5</sup> This is the second electricity transmission price control using the Revenue = Incentives + Innovation + Outputs (RIIO) model.

## Introduction

This report presents findings from our review of the latest annual data from the owners of Great Britain’s three onshore transmission networks, covering key metrics, emerging trends, and insights across the current price control period (RIIO-ET2).

It examines performance trends over the first four years, evaluates Transmission Owner (TO) expectations for the five-year period and beyond, and explores drivers behind performance and plans for achieving end-of-period ambitions based on 2024/25 data.

## Structure of this report

**Key findings** are summarised in the next section.

**Chapter One** outlines the TOs’ performance against incentive commitments to date (2021–2025) and in the fourth reporting year, including earned payments and penalties.

**Chapter Two** summarises the innovation-related expenditure of each TO.

**Chapter Three** provides an overview of output delivery via volume drivers. It also summarises anticipated delivery levels for key Price Control Deliverables (PCDs) across each TO, and output activity under specific re-opener mechanisms<sup>6</sup>.

**Chapter Four** provides a summary of total cost (totex) and adjusted allowances across all TOs. It reflects our assessment of expected cost performance over the five-year period.<sup>7</sup>

**Chapter Five** presents TOs’ current views on “edge effects” influencing the TOs’ view of performance across each network beyond the five-year price control period.

Two **subsidiary documents** are published alongside this report:

- a document presenting further detail of the areas of TOs’ performance, and
- a supplementary datafile containing additional performance data.

Unless otherwise specified, the data presented in this report is drawn from the TOs’ annual regulatory reporting pack (RRP) submissions, comprising actual figures up to 31 March 2025 and forecasts through to the end of the RIIO-ET2 price control period.

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<sup>6</sup> Outputs being progressed through the Medium Sized Investment Projects (MSIP) mechanism and the Large Onshore Transmission Infrastructure (LOTI) mechanism are summarised in this report.

<sup>7</sup> A detailed breakdown of cost activity performance for each TO is available in the supplementary appendix.

## Key findings

### Annual Incentive Targets



In 2024–2025, TOs continue to perform strongly against most annual targets, though challenges remain in some incentive areas.

- **World class system reliability:** All networks maintained reliability above 99.99%. However, NGET missed its energy-not-supplied target due to the widely reported North Hyde incident in March 2025 which affected supply to customers.
- **Mixed results on environmental performance:** NGET and SHET continued to reduce harmful gas leakage, while SPT saw a second consecutive rise. Grid carbon intensity has fallen across RIIO-ET2, and all TOs appear on track for the 2030 target. Only NGET's business carbon footprint is above its annual reduction goal.
- **Penalties and rewards on customer service:** SPT and SHET met targets, but NGET recorded some untimely connection offers and again underperformed on connection survey quality, incurring penalties.
- **Rewards for optimisation:** The strongest annual rewards came through the SO:TO optimisation mechanism, with TOs collectively earning nearly £40m for managing constraint costs, offsetting penalties in other areas.

Table 1: Incentive (+)/Penalty (-) earned to date £m

NGET	14.0+
SPT	23.9+
SHET	16.7+

### Innovation expenditure



Innovation projects continue to progress, with all TOs registering additional initiatives under the innovation streams. To date, 128 projects have incurred costs through the NIA mechanism (42 new projects in-year), with total expenditure of around £42m across all TOs. All expect costs to slightly exceed allowances over the period.

## Output delivery performance



Output delivery under RIIO-ET2 shows mixed progress, and we remain cautious about the robustness of TOs' future activity forecasts.

- **Delivering network capacity:** while generation connections have exceeded anticipated levels, demand connections are below initial expectation and progress on boundary reinforcement has been slower than anticipated. However, TOs are responding to changing network and customer requirements.
- **PCDs are facing delays** - both load and non-load - due to system access constraints and supply chain pressures resulting in slower progress than anticipated. Achieving end-of-period targets will require decisive action, though the mechanisms remain effective, with forecasts adjusted to reflect actual and expected delivery.
- **Re-opener mechanisms:** The scale and distribution of additional allowances awarded—totalling £1.76bn between April 2021 and December 2025—indicates that the mechanisms are functioning as intended, providing flexibility to address evolving investment needs while maintaining oversight.

The RIIO-2 framework is protecting consumers by enabling TOs to invest while ensuring any undelivered funding is returned to customers.

## TOs' current cost expectations



All TOs currently expect five-year spending to be below allowance across the RIIO-2 period.

Table 2: TO's forecast five-year performance (%)

NGET	3% underspend
SPT	5% underspend
SHET	7% underspend

The TOs' expectation of the pace of delivery, the impact of delays on the level of network asset risk and the TOs' mitigation plans to manage network risk and deliver the remaining delivery program remain our primary focus.



## Company summary

### NGET

Performance is mixed. NGET has delivered strongly in key incentive areas and taken steps to adapt to evolving market conditions. Load-related (LR) investment has accelerated, with £160m moving from pipeline to plan within the last year.

However, progress in other areas has lagged behind forecast ambitions. **The ongoing underspend in the Non-Load Related (NLR) portfolio** is driven by two main factors: assets being removed from asset health (AH) plans due to improved intelligence, and delays caused by system access constraints, supply chain pressures, and competing resource priorities. Although NGET plans to accelerate delivery, particularly within its NLR portfolio during the final year, it anticipates falling short of its original activity targets. Current forecasts indicate achieving 72% of AH volumes in the RIIO-2 period (excluding unfunded activity). Despite the shortfall, it indicates that the health of the network has remained broadly stable based on their asset risk classification model.

Financially, NGET's adjusted **five-year forecast is a 3% totex underspend** (£235m). This position is dependent on a successful ramp-up in activity in year 5. However, outage readiness and contractor availability remain critical risks to the realisation of the performance forecast.

### SHET

SHET's performance reflects a mix of challenge and progress. Notable **successes include energising the Shetland HVDC link**, achieving key planning consents for strategic projects, and performing well on the timeliness of connections and reducing emissions.

However, SHET has not delivered against baseline forecasts, which it puts down to supply chain pressures, consenting complexities, outage availability and shifting customer requirements. This has led to underspends across SHET's portfolio and the rephasing of several outputs into RIIO-3. For example, current forecasts of AH volume activity indicate achieving 77% of originally anticipated volumes in the RIIO-2 period.

**A significant underspend (45%) in the NLR portfolio**, driven by AH programme delays, are an ongoing concern. SHET estimates a 5% shortfall against its RIIO-2 Baseline Network Risk Output (BNRO) target. Competing priorities have also played a role in shifting of some works. Like the other TOs, we want to see better planning and delivery of this programme.

Financially, SHET report five-year costs to be **below its adjusted totex allowance across the period** (7%, £0.3bn) but it considers this position to be overstated. After incorporating expected end-of-period adjustments, an overall overspend of £31 million for RIIO-2 is anticipated.

While efficiency measures and scope adjustments have mitigated some impacts, SHET face continued challenges in the delivery of its RIIO-2 plan. The core challenge is to significantly accelerate delivery and secure the improvements expected.

### SPT

SPT has made progress in resolving contractor and supply chain challenges that hindered early RIIO-2 delivery and contributed to its slow start. While market pressures have pushed some work into T3, SPT's improved portfolio oversight and project-level controls indicate it is delivering a ramp-up in activity.

**Strong results are evident in key incentive areas**—improving customer satisfaction and reducing Energy Not Supplied—and taken positive steps to adapt to changing market conditions through strategic agreements and transformation initiatives.

However, delivery in some areas has fallen short of expectations. Despite a significant ramp-up in 2024/25, **cumulative underspends persist across baseline LR and NLR portfolios**, and delays to major projects have led to a projected under-delivery of 17.6% against its RIIO-2 BNRO, mainly attributable to delays with Glenlee-Tongland.

**SPT's forecast a 5% totex underspend (£140m)**, driven by NESO-led changes to strategic investments and efficiency initiatives, partially offset by overspend in re-opener funded works. NLR performance remains broadly aligned with allowance, though delivery challenges persist.



## Chapter One: Annual incentive performance

In this chapter, we examine outputs that are subject to incentives, including the value of rewards and penalties.

### Assessment of output delivery incentive (ODI) performance

From our assessments to date, we consider that RIIO-ET2 has been successful in providing the right incentives for TOs to deliver the outputs important to both current and future consumers. Four years into the period, TOs are rising to the challenge across many incentive areas, but there some areas of performance where they are falling behind.

Table 3: Measures of performance

Incentive area	RIIO measure	SHET	SPT	NGET
Safety	To meet all safety legislation requirements.	Met	Met	Met
Reliability of service	Minimise how much electricity is lost to customers because of failures of the assets on the network.	Met	Met	Not met
	Energy not supplied (annual MWh target)			
Quality of connections survey score	To measure and improve the customer experience throughout the connections journey.	Met	Met	Not met
	Target annual survey score (7.7 out of 10)			
IIIG emissions	Annual target leakage rates (Tonnes of CO <sub>2</sub> equivalent)	Met	Met	Met
Timely connections	Number of connection offers provided in accordance with licence timescales	Met	Near	Near
SO-TO optimisation	Collaboration to identify and deliver services that have a positive impact in assisting in minimising costs on the GB Transmission network.	[Note 1]	[Note 1]	[Note 1]
Environmental Scorecard	Percentage change in impact areas to annual reward/penalty thresholds	N/A	N/A	Met

Green means 'Met': performance on target / ahead of target or above score.

Orange means 'Near': partially missing target / partially behind target or below score.

Red means 'Not met': performance missing target / behind target or below score.

Note 1: there is no target associated with the SO-TO mechanism.

## ODI reward and penalty performance summary<sup>8</sup>

Table 4: ODI indicative cumulative revenue rewards & penalties (2021-2025)

<i><b>Mechanism</b></i>	<i><b>NGET</b></i>	<i><b>SPT</b></i>	<i><b>SHET</b></i>	<i><b>TOTAL</b></i>
<i>Energy not supplied</i>	1.4	4.1	3.0	<b>8.49</b>
<i>IIG emissions</i>	2.9	5.3	1.3	<b>9.47</b>
<i>Timely Connections</i>	(0.6)	(0.03)	0	<b>-0.58</b>
<i>QoCSS</i>	(13.4)	3.3	6.0	<b>-4.15</b>
<i>SO-TO Optimisation</i>	20.0	11.2	6.4	<b>37.68</b>
<i>Environmental scorecard</i>	3.6	n/a	n/a	<b>3.61</b>
<b><i>TOTAL</i></b>	<b>14.0</b>	<b>23.9</b>	<b>16.7</b>	<b>54.52</b>

Table 4 summarises the cumulative revenue rewards and penalties accrued by each TO over the four reporting years for each incentive area. Key points include:

- all three networks have maintained world-class system reliability, exceeding 99.99%.
- NGET and SHET have been rewarded for reducing IIG emissions. SHET achieved its lowest IIG leakage rate since 2018/19. SPT saw emissions rise between 2023–24 and 2024–25, mainly due to an isolated incident at a substation, but overall emissions remained below the annual target.
- the SO-TO optimisation mechanism has proven to be a valuable source of reward.
- NGET missed expected annual performance targets in three areas (energy not supplied, timely connections and the quality of connection surveys).

<sup>8</sup> Values have been extracted from the Revenue workbook and, in some instances, may reflect calculations post 31 July 2025.



## SO:TO optimisation

Table 5: SO-TO cumulative incentive annual reward (2021-2025)

	NGET	SPT	SHET	TOTAL
Reward	20.03	11.24	6.40	37.68

Over the past two decades, GB's electricity mix has shifted dramatically. The rise of intermittent<sup>9</sup> sources like wind and solar creates two major challenges:

- More balancing actions: NESO must actively manage variability to keep supply and demand aligned.
- Transmission stress: Higher generation peaks and longer distances (e.g., Scottish wind to demand centres) strain grid capacity, as expansion lags behind.

Reliable supply depends on:

- Reserve capacity via the Capacity Market; and
- Half-hourly balancing through the Balancing Mechanism<sup>10</sup>, where costs are influenced by wholesale prices and rising constraint costs

Balancing costs are increasing due to network bottlenecks, requiring faster transmission investment and better coordination of complex infrastructure projects. Historically, these have been hard for TOs to deliver efficiently.

Under RIIO-2, the SO-TO optimisation mechanism was introduced to improve coordination between NESO and TOs. It enables NESO and TOs to propose and fund TO-led investments that reduce network constraint costs and improve system flexibility, ensuring decisions deliver benefits for consumers and the wider system. Lower constraint costs translate into reduced transmission charges, helping keep consumer bills lower than they would otherwise be.

The primary objective of the mechanism is to unlock cost-effective solutions, enhance whole-system efficiency, and support decarbonisation goals. It does this by comparing how much the uncertainty is minimised between forecast and actual constraint costs savings<sup>11</sup>

Across the fourth regulatory year (2024-25), all the TOs made constraint savings and have been rewarded under the mechanism accordingly.

### Our view

The optimisation incentive has been successful in increasing coordination and collaboration among the relevant parties, leading to better alignment between network development and real-time operational needs, enhanced operational efficiency of the GB transmission network and, ultimately, cost savings. These enhancements significantly benefit consumers.

<sup>9</sup> Intermittent generation refers to electricity generation from sources that are not continuously available due to natural variability.

<sup>10</sup> NESO uses the BM to select the lowest-cost options from participants to increase or decrease the supply or demand and maintain system balance.

<sup>11</sup> Constraint payments, which are managed by the NESO, are paid to generators when they are unable to export their power to the market, including during planned outages on the system, with the cost of these constraint payments impacting consumer bills.

## Connections

Table 6: Timely connections and Quality of Connection Survey Scores

	NGET	SPT	SHET
QoCSS (target 7.7 out of 10)	6.5	8.9	8.7
2024-25 reward/(penalty)	(7.37)	1.51	1.92
Untimely Connection offers (#)	12[note 1]	1	0
2024-25 reward/(penalty)	(0.088)[note 2]	0.01	-

Note 1: Includes two untimely connections that were outside of NGET's control.

Note 2: the untimely offers outside of NGET's control are not subject to financial penalty.

Table 6 illustrates that some TOs are falling short of expectations in some aspects of the connection journey.

The primary driver is the current queue to connect to the transmission network as a result of:

- **High Demand:** Significant increase in requests for Transmission Entry Capacity and in the volume of connection offers, exceeding the volumes required to meet Government targets<sup>12</sup>, has created a backlog across all TOs.
- **Uncertainty:** Many projects in the queue modify their capacity and connection dates, causing delays and leading to additional design and preparation work.
- **Changes in background conditions,** along with customer-driven adjustments introduce more variables for TOs to manage.

These challenges resulted in an oversubscription in the connection pipeline which in turn led to undesirable connection dates being offered, impacting customer satisfaction.

Over the past year, important progress has been made on the connections reform package<sup>13</sup>, prioritising those that are both ready and needed<sup>14</sup>. These reforms seek to move away from the 'first come, first served' connections' process towards a 'first ready and needed, first connected' process.

The NESO has since re-ordered the queue and is now confirming revised connection dates with developers. A streamlined connections queue is being implemented and will lead to three key benefits:

- **Efficient Network Planning:** Clear prioritisation of projects needed for 2030/2035 pathways reduces waiting times, aligns with system needs, and mitigates consumer costs.
- **Investor Confidence:** New entrants will have a clear signal about what to invest in and where to locate. This should support economic growth. Existing projects with firm "Gate 2" offers should have increased confidence that the required network will be built and their project will be able to connect on time.
- **Lower consumer costs than would otherwise occur:** Efficiently prioritised connections means that viable projects can connect sooner, where the system needs them, without unnecessary cost to consumers. Without reform, critical projects risk missing deadlines.

### Our view

We acknowledge the challenging nature of the current connection landscape, and the impact that this is having on specific incentive areas for some TOs. However, while early-stage challenges will persist until reforms fully

<sup>12</sup> As of December 2025, the generation component of the queue is over 700GW. Directly contracted transmission demand project capacity is c.99GW.

<sup>13</sup> Target Model Option 4 connections reform decisions: <https://www.ofgem.gov.uk/decision/decision-connections-reform-package-tm04>

<sup>14</sup> <https://assets.publishing.service.gov.uk/media/677bc80399c93b7286a396d6/clean-power-2030-action-plan-main-report.pdf>

embed, we expect it to also bring improved customer experience and reduced barriers to TOs performance. These measures are essential to deliver the CP2030 Action Plan and maintaining confidence in the UK's energy transition.

## Reliability

Figure 1: Annual electricity transmission Energy Not Supplied (MWh): All TOs

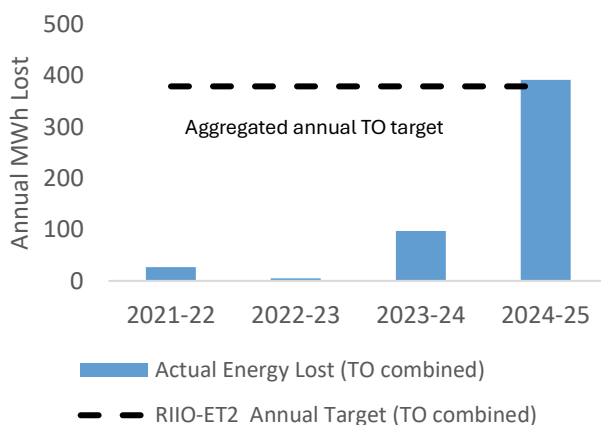
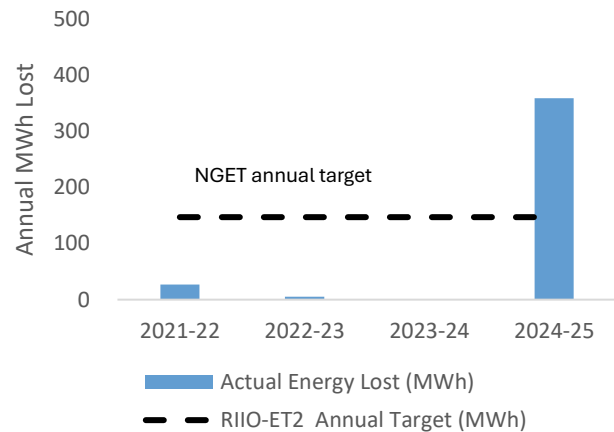


Figure 2: Annual electricity transmission Energy Not Supplied (MWh): NGET only



In electricity transmission, supply interruptions are measured by the volume of Energy Not Supplied (ENS).

SHET and SPT have consistently exceeded ENS targets throughout RIIO-ET2, and **overall sector performance has improved** since the start of the price control.

**NGET did not meet its ENS target in 2024/25**, with actual unsupplied energy significantly above the baseline, resulting in underperformance against the incentive. This was driven by the fire at the North Hyde substation on 20th March 2025, and the associated power outages for Heathrow airport and in West London. This incident accounted for 95% of the total incentivised energy not supplied in 2024-25 (359MWh<sup>15</sup>).

We note that NGET are in the process of implementing the recommendations in NESO's report<sup>16</sup> to the North Hyde incident and are cooperating with our ongoing investigation of critical assets on NGET's network.

### Our view

From our assessments to date, we consider that RIIO-ET2 has been successful in providing the right incentives for companies to deliver historically low levels of interruptions to consumers. The GB transmission network continues to deliver high reliability and is part of one of the most reliable energy systems in the world, with comparatively few disruption events affecting consumers. In NGET's area, despite a small incremental dip in reliability performance due to the North Hyde incident, network reliability remained strong in 2024-25 (99.9998%).

<sup>15</sup> The level of unsupplied energy is relative to a total supply for the year of 213.44 TWh during the year.

<sup>16</sup> [North Hyde Review | National Energy System Operator](#)

Consumers place high value on a transmission system that is resilient and dependable, particularly during peak demand or adverse conditions. Strong performance reduces disruptions, delivering a more reliable electricity supply, minimising downtime for businesses and reducing inconvenience for households, which ultimately supports broader economic stability.

## Emissions

Figure 3 Annual IIG emissions, electricity transmission (tonnes of CO<sub>2</sub> equivalent): SPT & SHET

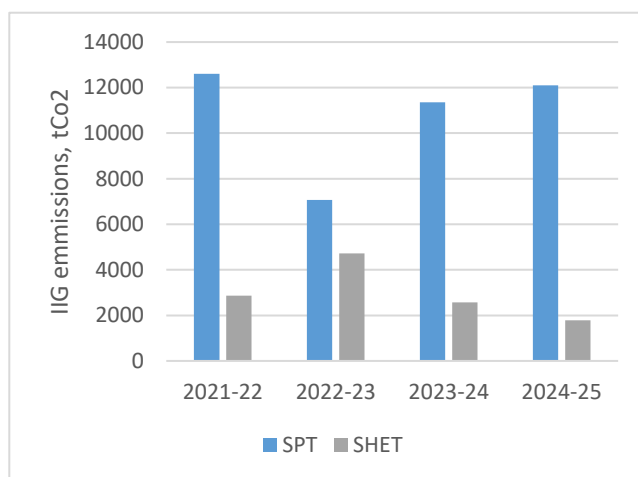
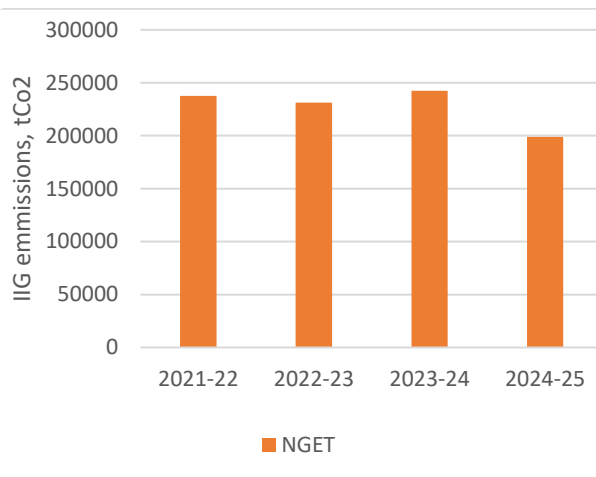


Figure 4: Annual IIG emissions, electricity transmission (tonnes of CO<sub>2</sub> equivalent): NGET only



This ODI incentivises a reduction in leakage of SF<sub>6</sub> and other harmful Insulation and Interruption Gas (IIG) from assets on the transmission network, and to support the transition to low greenhouse gas alternative IIGs. This mechanism tracks annual leakage performance against target rates, measured in tonnes of CO<sub>2</sub> equivalent.

SHET recorded its lowest annual total since 2018–19. The leakage rate of 0.10% is less than half the incentive target of 0.39%, earning a £0.64m reward. This improvement reflects enhanced processes for identifying and addressing leaks, driven by an internal SF<sub>6</sub> forum, alongside RIIO-2 funded interventions targeting high-risk assets—both contributing to reduced IIG leakage.

NGET have made notable progress, achieving its lowest IIG leakage rate in the RIIO-2 period, achieving IIG emissions 4.6% below the incentive target for 2024-25 and earning a reward (£1m). Emissions continue to be on track to achieve the 33% reduction in annual emissions by 2026 in line with its Responsible Business Charter.

SPT's SF<sub>6</sub> emissions rose between 2023–24 and 2024–25, mainly due to asset decommissioning and an incident with a leaking Gas Insulated Busbar at a substation, but overall emissions remained below the annual target. SPT has a defined strategy focused on proactive interventions and planned repairs to minimise leaks from ageing assets and reduce future emissions.

### Our view

Performance (excluding exceptional events) does however vary between the TOs and across the price control period so far. Overall, all TOs have exceeded their target emissions and achieved a reward in every year of RIIO-2, including 2024-25.



## Chapter Two: Innovation

In this chapter, we provide a brief overview of the expenditure related to the innovation activities for each company and an overview of the number of projects being advanced.

### RIIO-2 Innovation Development

The RIIO-2 innovation package encourages TOs to do more than business as usual when it comes to finding a better, cheaper, smarter or more agile way of doing things. The package includes the Network Innovation Allowance (NIA) and a mechanism for larger schemes, the Strategic Innovation Fund (SIF).

A further mechanism, the Network Innovation Competition (NIC), ran during the RIIO-ET1 price control period to fund innovative low carbon or environmental projects. Some of the associated projects carried on into RIIO-ET2.

#### NIA performance

NIA funding is to enable companies to take forward innovation projects that have the potential to address consumer vulnerability and/or deliver longer-term financial and environmental benefits for consumers, which they would not otherwise undertake within the price control. Companies can claim 90% of the cost of the project from the following NIA allowance:

- NGET: £49.3m
- SHET: £8m
- SPT: £13.5m

This year all TOs have registered additional projects for funding under the NIA funding streams. The position of each TO is as follows:

*Table 7 – NIA Spending and Project Summary*

	2024-25 Spend (£m)	Cumulative Spend (£m)	New Projects in 2024-25	'In Progress' projects
NGET	14.2	31.8	21	76[note1]
SHET	2.3	4.8	11	15[note2]
SPT	2	5.3	4	15[note3]

Note 1: 22 projects are listed as complete, with six of these projects reported to have not incurred any spend during the RIIO-2 period.

Note 2: five projects are listed as complete. One project is listed as undefined.

Note 3: five projects are listed as closed and a further two projects have not incurred any spend during the RIIO-2 period.

#### Strategic Innovation Framework (SIF)

The SIF provides flexibility to respond to innovation challenges as they arise, and potentially secure additional innovation funding for eligible projects.

The SIF adopts a three-phase project approach to mitigate the risk associated with innovation: Discovery Phase, Alpha Phase and Beta Phase. The Discovery Phase focuses on feasibility, the Alpha Phase on experimental development, and the Beta Phase on deployment and demonstration.

NGET has received funding for ten projects so far through the SIF mechanism. Four projects have been stopped as the initially expected benefits have not materialised, and six projects have been progressed, receiving £9.6m SIF during 2024/25. Two projects advanced to the Alpha Stage, while a third project (SF6 Whole Life Strategy) advanced to the Beta Stage.

SHET has received funding for ten projects so far through the SIF. Projects being progressed include:

- The INCENTIVE project, which is attempting to develop technology solutions to allow offshore windfarms to provide inertia to the onshore networks to improve grid stability and reliability.
- The System Strength Measurement and Evaluation (SYSMET) project is focused on developing a reliable and consistent set of measurement tools to provide full visibility of system strength to assist in operational decisions. The project progressed to Alpha Phase in October 2024.
- The Revisiting and Evaluation Environmental Inputs online Ratings (REVISE) project aims to replace the current static circuit rating methodology with an enhanced approach that incorporates local environmental conditions at each circuit location, enabling more accurate ratings and unlocking additional capacity from existing infrastructure.

Overall, SHET's total expenditure in 2024/25 across the SIF project portfolio is £0.89m (£3.94m cumulative spend across the first four years).

SPT has received funding for 19 projects in total so far through the SIF, 13 of which are complete. The projects are progressing through the various stages, for example the 'Blade' project reached the Beta Phase, aiming to demonstrate the technology and commercial model of a black start from Offshore Wind Farms. SPT's total spending across the SIF projects in 2024/25 is £3.2m (£6.4m cumulative spend across the first four years).

### NIC funding

- SPT has developed and deployed hybrid synchronous compensators (Project Phoenix). SPT's cumulative spend over the first four years is £0.16m<sup>17</sup>.
- SHET has developed and completed both projects that were awarded NIC funding, the Multi-Terminal Test Environment and a New Electricity Suite of Transmission Structures (NeSTS). Total spend across the first four reporting years on these projects is £1.57m (including the impact of an adjustment in 2022-23).
- NGET has spent £18.7m on NIC projects over the RII0-2 period. The portfolio consists of two projects in progress, one to convert an existing 400kV substation into a high voltage innovation centre and a project aiming to develop a novel method of uprating Overhead Lines.

### Looking forward

The network companies are responsible for enabling innovation, which will help to drive down costs and result in new products and services for consumers. It is important that the right regulatory regimes are in place to encourage innovation and support investment in the most efficient solutions. We are continuing to consider improvements to how networks report on their innovation work.

<sup>17</sup> The innovation project "Phoenix" was completed in April 2022 and was transferred to business as usual.



## Chapter Three: Output Delivery

In this chapter, we provide an overview of TOs' activity related to various outputs and uncertainty mechanisms throughout the RIIO-ET2 period.

### TOs' Output Delivery Performance

Overall, output delivery performance across all TOs is broadly on track, though variations in network conditions and customer-driven activity continue to influence outcomes. Generation connections have exceeded initial expectations, while demand connections remain below the levels assumed when the price control was set, and progress on boundary reinforcement has been slower than anticipated.

We observe that TOs are adapting to the changing requirements, supported by the flexibility of the RIIO framework, which balances responsiveness with accountability. We remain confident that the price control mechanisms are working as intended—adjusting baseline allowances to actual volumes of service and ensuring consumers only pay for what is delivered.

The table below provides an overview of TOs' activity related to various volume driver mechanisms throughout the RIIO-2 period. We note that forecasted connection dates can be subject to change.

*Table 8: output delivery (actual and forecast) over the five-year period*

Mechanism <sup>18</sup>	SPT	NGET	SHET
<b>1. New Generation Connections (GW)<sup>19</sup></b>	8.4	15.4	0.2
<b>2. New Demand Connections (GVA)<sup>20</sup></b>	0.6	3.8	n/a
<b>3. Boundary strengthening work (GW)</b>	n/a	9.0	n/a
<b>4. PCD (Boundary GW)<sup>21</sup></b>	1.8 <sup>[note 1]</sup>	7.6	0
<b>5. PCD (Connection GW)<sup>22</sup></b>	-	-	1.9
<b>6. PCD (GVA)</b>	-	-	1.4

The activity values above do not include projects that are currently expected to deliver outputs in the T2+2 period.

Note 1: Includes expected delivery of an 800MW uplift across boundary B5, linked to a project originally classified as a PCD but now an ASTI initiative.

This chapter summarises the key areas of TO delivery that are driving the acceleration of network deployment needed to meet the CP2030 decarbonisation targets. Progress is being supported across four main areas:

- Delivering new connections to the transmission network to meet the volume of new user requests (generation and demand connections volume driver).
- The strengthening of the transmission network boundaries in England and Wales to remove bottlenecks in transporting additional generation and to accommodate changing patterns of demand (wider works volume driver, referred to as incremental wider works).
- Infrastructure works linked to the delivery of projects through the MSIP and LOTI mechanisms<sup>23</sup>.

<sup>18</sup> The analysis does not include the ASTI framework and its associated projects. These investments are not currently part of the annual reporting submission (cost and volume information). Consequently, the RRP submissions do not provide any details on the progress of any ASTI investments.

<sup>19</sup> The value reflects project output delivery under Special Condition 3.11 and corresponds to entries in the RRP submission identified by "AGCp".

<sup>20</sup> The value reflects project output delivery under Special Condition 3.12 and corresponds to entries in the RRP submission identified by "ADCp".

<sup>21</sup> The value relates to project output delivery under Special Condition 3.9 Wider works Price Control Deliverable (WWt).

<sup>22</sup> The value relates to project output delivery under Special Condition 3.17 Shared schemes Price Control Deliverable (SSt).

<sup>23</sup> This excludes outputs associated with ASTI, Physical Security, Cyber IT, and Cyber OT mechanisms and the Non-Op IT re-opener.

- Capacity linked to the delivery of Price Control Deliverables (PCD) specified in each RIIO-2 Licence.

The next sections provide an overview of the TOs' reported activities over the first four reporting years for each mechanism, along with their current delivery expectations for the total five-year price control period. We present a five-year overview to offer a straightforward and comparable perspective across all TOs.

We note, however, that the mechanisms apply to qualifying works anticipated to deliver within the five-year period and in year 1 and year 2 of the next price control period (referred to as the 'T2+2 period'). Further information is separately presented in the subsidiary document published alongside this report.

## New connections volume driver<sup>24</sup>

Connecting new generation to the grid requires infrastructure upgrades, such as installing new substations and reinforcing the network. Historically, bookings were simply awarded on a first-come, first-served basis, with no regard to system needs or project viability.

The expansion of renewables has led to a sharp rise in bookings, many for speculative projects, with queue additions far outpacing the actual connections rate. To address this, in April 2025 we published reforms to prioritise the existing queue based on system needs and viability, and to remove stalled or speculative projects.

The process has affected the volume of output delivery, with each volume driver mechanism being heavily influenced by the scale of customer-driven activity changes experienced during RIIO-2. We provide an overview of the five-year position in the tables below for each TO (where applicable).

### NGET: new generation connections

*Table 9: Generation connection capacity (actual and forecast) over the five-year period (MW)*

MW	2022	2023	2024	2025	2026
<b>actual / forecast<sup>25</sup></b>	5,262	150	2,999	2,531	4,484
<b>baseline</b>	5,262	300	2,277	2,499	3,150

NGET's delivery progress is marginally above the baseline levels initially anticipated after the fourth reporting year (10.94 GW versus a baseline level of 10.34 GW).

Across the five-year period, NGET's current expectation is for new generation connections to deliver 15.43 GW of capacity, which is higher than the initial level anticipated for this period (13.49 GW). This is primarily driven by changes in the energy landscape since the RIIO-2 baseline allowances were set and a larger than expected rise in requests for new transmission connections.

Focussing on outputs delivered through this mechanism (i.e. excluding PCD-related delivery), NGET expects a further 25 projects to connect to its network in the final year of RIIO-ET2—similar to the cumulative number of

<sup>24</sup> This section highlights activity through the volume driver mechanism only; it does not include baseline projects or PCD connection activity.

<sup>25</sup> The annual MW value is calculated by summing all MW allocated to that delivery year; phased delivery is not collated against the first delivery year.

connections delivered across the previous four years (26). This will drive a significant increase in capacity; 4.5 GW compared to a baseline expectation of 3.2 GW for 2025–26.

Beyond RIIO-ET2, NGET forecasts a further 34<sup>26</sup> projects to connect between April 2026 and March 2028 (T2+2), adding an estimated 6,734 MW of capacity through the volume driver mechanism during the period.

#### NGET: new demand connections

*Table 10: Demand connection capacity (actual and forecast) over the five-year period*

MVa	2021/22	2022/23	2023/24	2024/25	2025/26
<b>actual / forecast<sup>27</sup></b>	1,020	292	500	1,064	960
<b>baseline</b>	1,020	700	480	480	0 (note)

Note: A zero value was assumed for the volume of connected capacity in the final reporting year of RIIO-2 when the mechanism was set.

NGET is above the expected delivery levels of new demand connection capacity after the fourth reporting year (2,876 MVa versus a baseline level of 2,680 MVa).

Across the five-year period, NGET's current expectation is for output delivery to be significantly more than the baseline targets – connecting 3,836 MVa of demand capacity compared to an expected baseline level of 2,680 MVa across the five-year RIIO-2 period.

Excluding the impact of PCD delivery, NGET expects an additional 2 projects to connect in the final year of RIIO-ET2— bringing the cumulative number of new connections delivered across the period to 14. The output capacity delivered in the fourth year is reported as 1,064 MVa compared to a baseline expectation of 480 MVa for 2024–25.

Beyond RIIO-ET2, NGET anticipates a further 7 projects connecting between April 2026 and March 2028 (T2+2), adding an estimated 3,240 MVa of capacity through the volume driver mechanism during the period.

#### SPT: new generation connections

*Table 11: Generation connection capacity (actual and forecast) over the five-year period*

MW	2021/22	2022/23	2023/24	2024/25	2025/26
<b>actual / forecast</b>	354	980	660	1,431	5,000
<b>baseline</b>	1015	1120	191	0	0

Note: A zero value was assumed for the volume of connected capacity in the final two reporting years of RIIO-2 when the mechanism was set

SPT's delivery progress is above the expected trajectory initially anticipated after the fourth reporting year (2,325 MW expected against 3,425 MW delivered to date).

<sup>26</sup> The count value is determined by assigning phased projects to the first year of their delivery.

<sup>27</sup> The annual MW value is calculated by summing all MW allocated to that delivery year; phased delivery is not collated against the first delivery year.

Across the five-year period, SPT's current expectation is a significant increase in the delivery of new generation capacity. SPT currently expects to connect a further 12 projects with an additional 5 GW of generation capacity before the end of the five-year RIIO-2 period.

Beyond RIIO-ET2, SPT anticipates several projects (29) connecting to its network between April 2026 and March 2028 (T2+2), adding an estimated 6.25 GW of capacity through the volume driver mechanism.

#### SPT: new demand connections

*Table 12: Demand connection capacity (actual and forecast) over the five-year period*

MVa	2021/22	2022/23	2023/24	2024/25	2025/26
<b>actual / forecast</b>	0	0	300	190	120
<b>baseline</b>	0	652	0	0	0

SPT's delivery progress is below the expected trajectory initially anticipated after the fourth reporting year (652 MVa expected against 490 MVa delivered to date).

This is the result of movement within the original baseline plan driven by changes to demand customer-driven schemes (e.g. Network Rail) and the broader updates through the NOA and Holistic Network Demand (HND) processes led by the NESO.

Across the five-year period, SPT's current expectation is for output delivery to be marginally below the level initially anticipated when the mechanism was set – connecting 2 projects (baseline expectation of three) with a 5 year total capacity of 610 MVa (baseline expectation of 652 MVa).

No projects are currently expected to connect within the T2+2 period.

#### SHET: new generation connections

*Table 13: Generation connection capacity (actual and forecast) over the five-year period*

MW	2021/22	2022/23	2023/24	2024/25	2025/26
<b>actual / forecast</b>	0	0	50	106	36

Note: The anticipated level of baseline capacity was set at zero across RIIO-2 when the mechanism was set.

The activity progressed is currently on track with the delivery trajectory anticipated when the mechanism was established. Across the five-year period SHET's current expectation is for output delivery to connect 192 MW of new generation capacity (the baseline expectation was set at zero).

Forecasted generation is based on SHET's internal Likely Outturn Assessment (LOA).

We note that SHET has received a larger number of new generation connection requests to its network since the beginning of RIIO-2 than initially expected, a trend that is expected to continue. The impact of the connections reform is expected to see connection dates predominantly in latter stages of RIIO-ET3 and beyond. No projects are currently expected to connect within the T2+2 period.

## Incremental wider works (IWW) volume driver (NGET only)

Table 14: Cumulative boundary capacity in NGET's network (actual and forecast) over the five-year period

GW	2021/22	2022/23	2023/24	2024/25	2025/26
actual / forecast	0	0.130	0.716	2.858	3.878

The mechanism designed to strengthen work on network boundaries across England and Wales is currently below the anticipated delivery trajectory, primarily due to changes in the Network Options Assessment process led by NESO and the resulting impact on several planned investments. However, NGET expects the scale of delivery to recover and for the delivery position to exceed the anticipated level across the full five-year period.

In 2024-25 NGET delivered 4 projects to strengthen network boundaries through the volume driver mechanism, adding 2.858 GW of additional boundary capability within the reporting year. This brings the total projects delivered within the first four years of the RIIO-2 period to 7, and the total boundary capacity uplift delivered to 3.7 GW during this period.

NGET currently expects delivery to significantly increase over the final year of the five-year period – a further boundary capacity increase of 3.88 GW is anticipated from the completion and delivery of a further 3 projects across the full five-year period.

Excluding the impact of PCD delivery, NGET's current forecast for the five-year period is for 7.58 GW of additional boundary capacity to be delivered through the volume driver, which is marginally below the baseline levels initially anticipated when the mechanism was set (7.58 GW versus a baseline level of 8.81 GW).

Beyond RIIO-ET2, NGET anticipates a further project is expected to complete between April 2026 and March 2028 (T2+2), adding an estimated 0.83 GW of boundary capability through the volume driver mechanism.

## PCDs

PCDs either allow allowances to be recovered mechanistically (i.e. automatically), or evaluatively (i.e. requiring review of the delivery of the PCD outputs). For Evaluative PCDs, the licence provides for the adjustment power<sup>28</sup>.

NGET reports that 9 Wider Works evaluative PCD projects have been delivered in accordance with the licence description and timeline (Special Condition 3.9). A further 6 are confirmed as being either removed<sup>29</sup> or cancelled, and a further 7 projects are subject to delay and/or scope change and are anticipated to be delivered in the next price control period (including Wymondley Turn-in and Sundon-Elstree in line with updated NESO requirements).

The actual and expected delivery profile of the wider works PCD portfolio is summarised below and shows that NGET expects to deliver 9 GW of capacity improvement in total by the end of the five-year price control period

<sup>28</sup> Which can only be exercised should the PCD not be Fully Delivered, with the meaning of Fully Delivered and its constituent parts (output and delivery date) being specified in the licence condition.

<sup>29</sup> One of which - "NBRE" Project - is currently funded through the Wider Works volume driver.

(10.4 GW by March 2028). For comparison, the schemes subject to the WW volume driver are also presented (licence term WWVt).

*Table 15: Evaluative PCD and IWW volume driver project delivery profile (actual and forecast): NGET only*

	2022	2023	2024	2025	2026	T2 TOTAL	2027	2028
<b>PCD: SpC 3.9, MW boundary baseline</b>	4,189	6,988	4,280	4,805	3,158	<b>23,420</b>	1,730	-
<b>PCD: MW boundary (RRP25)</b>	4,189	3,490	546	815	0	<b>9,040</b>	135	1200
<b>Projects #</b>	4	4	0[Note 1]	2	0	<b>10</b>	0[Note 2]	3[Note 3]
<b>Volume Driver: MW boundary</b>	0	130	716	2,858	3,878	<b>7,582</b>	826	0
<b>Projects # (WWVt)</b>	0	1	2	4	3	<b>10</b>	1	0

Note 1: Alternative additional increased impedance of existing Power Controller schemes at Harker & Penwortham allocated to 2023.

Note 2: 225MVAR MSCs at Burwell Main allocated to 2025.

Note 3: Rye House 1&2 is counted as a single project.

Mechanistic PCDs are explained later in this report.

SPT reports mixed progress across the range of PCDs, with the majority currently on-track or completed, but a few projects have undergone significant changes or have been delayed due to evolving external factors (i.e. changing network needs and background condition changes).

SHET has already delivered eight PCDs and expects another eight to be on track for completion by March 2026, while seven PCDs are currently identified as ‘not on track’ and are forecasted either to fall short of their planned outputs or fail to complete within the required timescale. Discussions are ongoing with SHET regarding the East Coast 400k PCD project, including potential scope adjustments to address evolving requirements. Additionally, a recent decision on the E4L5 project confirmed the removal of the original PCD (under Special Condition 3.15) and its replacement with an ASTI PCD. Further details on this decision are available on our website.<sup>30</sup>

SHET has also confirmed that a portion of the RIIO-T2 PCD investment programme will not be deliverable by March 2026, with the associated allowances expected to be handed back or re-profiled into the RIIO-3 price control period.

A PCD tracker for each TO is separately presented in the subsidiary document published alongside this report.

We will continue to monitor progress and ensure that all TOs maintain consumer value and delivery integrity.

## Re-opener mechanisms<sup>31</sup>

Re-openers are a type of mechanism that allow us to adjust a licensee’s allowance, outputs and delivery dates in response to changing circumstances during the price control period. Although re-openers can reduce a licensee’s allowances, in most cases re-opener mechanisms provide additional allowances to a licensee and are awarded following our assessment of an application from the licensee.

<sup>30</sup> Accelerated Strategic Transmission Investment: Material Scope Change and Early Construction Funding - EGL3, EGL4 and GWNC

<sup>31</sup> The data in this section is sourced from the TOs’ annual MSIP and LOTI re-opener submissions for the RIIO-ET2 price control period, covering April to December 2025. Please note, this timeframe extends beyond the data included in the July 2025 annual RRP submission used elsewhere in this report.



The recent decision on our assessment of re-opener applications submitted by TOs in 2025<sup>32</sup> means that we have awarded additional RIIO-ET2 allowances with total value of £1,760m through RIIO-ET2 re-opener mechanisms.<sup>33</sup> This includes:

- £116m awarded to NGET, SHET, and SPT for several Medium Sized Investment Projects (MSIP),
- £156m awarded to NGET and SHET through the Non-operational IT re-opener mechanism,
- £266m awarded to NGET for two Visual Impact Mitigation projects, and
- £840m awarded to NGET and SHET through the Large Onshore Transmission Infrastructure (LOTI) mechanism (including the Pre-Construction Funding (PCF) mechanisms).

**Error! Reference source not found.** Table 16 below provides a summary of the total additional allowances awarded to each TO through RIIO-ET2 re-opener mechanisms. Please note that the years shown are the regulatory year in which the decision to award the additional allowances was made, which might not necessarily be the same as the year(s) in which the company receives the allowances.<sup>34</sup>

Table 16: Additional RIIO-ET2 allowances added through re-opener mechanisms, by regulatory year in which the decisions were made (£m)

Company	2021-22	2022-23	2023-24	2024-25	2025-26	Total
NGET	80.76	80.00	551.12	82.51	152.35	946.74
SHET	508.70	-	43.92	13.44	100.60	666.66
SPT	-	-	15.66	11.53	119.28	146.47
<b>Total</b>	<b>589.46</b>	<b>80.00</b>	<b>610.71</b>	<b>107.48</b>	<b>372.23</b>	<b>1,759.87</b>

Any allowances we award to network companies in RIIO-ET2, including through re-opener mechanisms, are for the specific regulatory years in which the work is expected to be carried out.

### How consumers pay for allowances

Although consumers pay out a portion of the allowances (between 15% and 30% for re-openers) to the licensee in the year to which they relate, the majority is paid over the economic asset life, i.e. across the next 45 years<sup>35</sup>. Consumers pay additional amounts to network companies over this period to allow the network companies' shareholders to make a return (Cost of Equity) and to cover the interest on any debt raised by the network company to finance the work (Cost of Debt).

We have estimated how much the additional allowances awarded through reopener mechanisms will cost consumers in total over the full 45-year period(s) over which consumers will be pay the network companies through their energy bills. The total amount that consumer will pay to each TO is summarised in Table 17.

It should be noted that:

<sup>32</sup> [https://www.ofgem.gov.uk/sites/default/files/2025-12/RIIO-2\\_Re-opener\\_Applications\\_2025\\_Final\\_Determinations\\_ET\\_Annex.pdf](https://www.ofgem.gov.uk/sites/default/files/2025-12/RIIO-2_Re-opener_Applications_2025_Final_Determinations_ET_Annex.pdf)

<sup>33</sup> Please note that this excludes allowances awarded through the ASTI, Cyber IT, and Cyber OT mechanisms.

<sup>34</sup> For example, the £80.76m additional allowances for NGET in 2021/22 relates to a decision made in 2021/22 to award additional allowances through the Bengeworth Road Grid Supply Point Re-opener mechanism. However, NGET receives the allowances spread across all five years of RIIO-2, receiving between £12m and £22m in each of the regulatory years.

<sup>35</sup> Our current depreciation policy under the RIIO framework applies an asset life of 45 years, which forms the basis for calculating depreciation of capital investments across network companies and sectors. This means that the capex added to the Regulatory Asset Value is typically recovered over a 45-year period—aligning regulatory depreciation with the anticipated economic utility of the assets.

- the allowance figures are for all price control periods, i.e. they include RIIO-ET2 allowances, as well as any allowances that will be awarded through subsequent price controls,
- the estimates are based on assumption that the TOs spend no more or less than their allowances<sup>36</sup>,
- the estimates also do not account for the impact of any amounts that consumers may pay to network companies to cover the tax payable on their profits.

Table 17: Estimated total paid by consumers to network companies through their bills due to RIIO-ET2 re-opener decisions (£m)

Company	Reopener allowances	Additional allowances	Company debt repayments	Company shareholder return	Total paid by consumers	PV of total paid by consumers
NGET	1,435	119	304	550	2,409	1,496
SHET	781	1	115	238	1,135	657
SPT	187	20	40	73	320	192
<b>Total</b>	<b>2,403</b>	<b>140</b>	<b>460</b>	<b>861</b>	<b>3,864</b>	<b>2,345</b>

For the total re-opener allowances approved (£2.403bn), consumers will pay an estimated £3.864bn (i.e. an additional £1.460bn) to the TOs.

The TOs will receive automatic additional allowances of approximately £140m (total allowance of £2.543bn) to fund their indirect activities, set automatically through the Opex Escalator mechanism<sup>37</sup>.

The remaining £1.320bn additional amount paid by consumers is to cover the companies' debt interest payments and shareholder returns.

## Accelerated Strategic Transmission infrastructure (ASTI)<sup>38</sup>

In 2022, we introduced the ASTI framework to streamline the regulatory assessment process for critical transmission projects supporting the Government's offshore wind targets. The framework aims to minimise early-stage delays while maintaining cost scrutiny and delivery incentives for transmission operators. **An initial list of 26 projects was identified**, including those necessary for easing capacity constraints between Scotland and England.

Five projects have entered main construction phase, and Early Construction Funding applications have been submitted for several others<sup>39</sup>. We note that TOs consider themselves to be on-track to increase capacity in each electricity transmission network and to meet the strategic goals set for 2030 and 2050.

<sup>36</sup> If a company spends more than its allowances, then consumers will pay more to cover a portion of the overspend through the TIM. Similarly, if the company spends less than its allowances, the TIM will return a proportion of the underspend to consumers (meaning that consumers will have paid less than estimated), with the companies retaining the remainder.

<sup>37</sup> Not all re-openers are subject to the OE mechanism. For those it does not apply to indirects are funded through the allowances noted above.

<sup>38</sup> The ASTI framework and its associated projects are not currently part of the annual reporting submission (cost and volume information). Consequently, the RRP submissions do not provide any details on the performance expectations or output delivery progress of any ASTI investments.

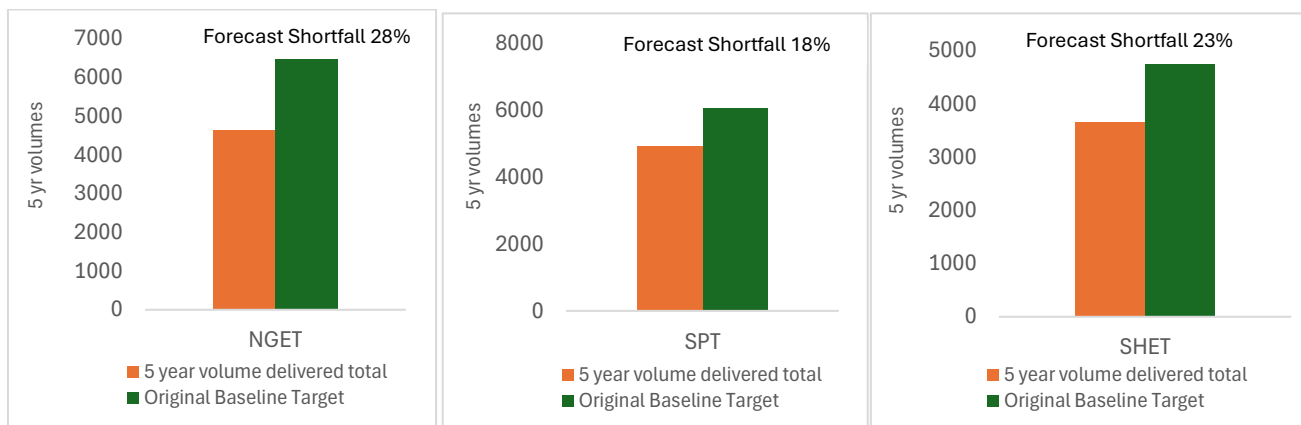
<sup>39</sup> More information on ECF project requests and approvals under Special Condition 3.41 can be found on the Ofgem website.

## Network Asset Risk Management (NARM)<sup>40</sup>

NARM is what we use to define outputs and set allowances for asset management activities, such as replacement. Our approach quantifies the consumer benefit of a TO's interventions and holds the company to account for investment decisions. Outputs are defined using long-term monetised risk benefit (LTRB)<sup>41</sup>.

NARM performance to date is for the most part behind target and not expected to recover by the end of the RIIO-T2 period. All TOs are expected to under deliver on the volumes set at the start of the price control, as shown in Figure 5 below<sup>42</sup>. The TOs note a variety of challenges they have faced in delivery, such as supply chain, system access, and land rights constraints. As part of our end of period assessment, we will ensure that consumers are protected from non-delivery and that TOs are only able to recover the costs of projects that are ultimately delivered. We have also included mechanisms in RIIO-T3 so that works delayed from RIIO-T2 are supported through to completion.

Figure 5: TO asset volume delivery (actual/forecast) against originally anticipated volume across the RIIO-ET2 period



We review the position of each TO individually below.

### NGET

The NARM model projects a 6% increase in network risk across NGET's asset portfolio over the five-year price control period. Network risk scores are determined from several factors including, replacement of assets, refurbishment and maintenance activities, updated condition data, and updated use of the asset.

NGET's forecast performance for NARM RIIO-T2 asset delivery is currently estimated to achieve 81% of the original target FD volumes. Including volume activity across PCD works, NGET currently forecasts its RIIO-T2 asset delivery performance at approximately 72% of FD volumes, excluding those delivered under the 'Costs Outside Submission' category.<sup>43</sup>

<sup>40</sup> While NARM information is reported through the annual RIGs submission, detailed information on the Network Asset Risk Methodology outputs is provided through a separate regulatory submission. The data in this section reflects the outcome of additional engagement with each TO.

<sup>41</sup> RE refers to 'risk pounds' a monetised measure of risk reduction expressed in pounds sterling.

<sup>42</sup> NGET volumes include the impact of NARM and PCD volumes across the five-year RIIO-ET2 period. Values exclude the impact of 'CoS' volumes. SPT and SHET volumes reflect only the NARM asset category across the RIIO-ET2 period.

<sup>43</sup> NGET notes that the percentage increases when unfunded activity delivered outside of FD and Load related interventions is incorporated.

Table 18: Five-year Lead Asset volume delivery forecast (NARM and PCD) and movement in volume delivery

Lead Asset <sup>44</sup> category	Movement	RRP25 % movement
Underground cable (cct km)	-12	
Circuit Breaker (#)	-50	
Overhead line fittings (cct km)	-97	
Reactor (#)	-6	
Transformer (#)	-6	
<b>NARM sub total</b>	<b>-171</b>	<b>-19%</b>
Bay assets (#)	-470	
Instrument Transformer (#)	-99	
OHL conductor (cct km)	-433	
Protection, control, metering (#)	-446	
SF6 intervention (sites)	-7	
SF6 re-opener (sites)	-4	
SF6 re-opener (# CTs)	-207	
<b>PCD sub total</b>	<b>-1,666</b>	<b>-30%</b>
<b>TOTAL (a+b)</b>	<b>-1,837</b>	<b>-28%</b>
Costs Outside submission	+781	
<b>Revised TOTAL</b>	<b>-1,056</b>	<b>-16%</b>

While we acknowledge that a portion of T2 FD volumes have been removed from NGET's asset health plans due to improved intelligence (e.g. asset intervention being superseded by load-related drivers or revised condition assessments<sup>45</sup>), revising required volumes down from the original FD position, the expected volume shortfall and delays in progressing the asset health programme throughout RIIO-ET2 remains a concern.

Between RRP24 and RRP25, the volume delivery has not increased to the level anticipated, creating a larger expected shortfall when compared to the original target FD volumes across the five-year period. NGET notes the primary reason to be a movement in forecast delivery due to the ongoing delivery challenges associated with three key constraints (system access, internal resource availability and supply chain capacity). These challenges have continued to grow and impacted delivery in the fourth year of RIIO-ET2 more than NGET expected.

Table 19 shows how delivery forecasts have shifted between the previous submission (RRP24) and the latest submission (RRP25) for Years 4 and 5 of RIIO-ET2. It highlights changes in anticipated and actual delivery volumes, as well as the impact on projections for the final regulatory year (2025–26). Movements by asset category and overall percentage shifts show where adjustments have been most significant, reflecting a refined understanding of key constraints. However, the shortfall in Year 4 delivery (32% against RRP24 projection) and the subsequent reduction in Year 5 forecasts (18% lower than RRP24 projections) make us cautious about the

<sup>44</sup> Lead assets form the backbone of the transmission system and carry the most significant risk and consequence of failure.

<sup>45</sup> For example, we are aware of instances where after a reassessment and subsequent rescoring of the asset health of the conductor, it was determined that it was more economic to replace the fittings rather than proceed with a full conductor replacement.

confidence that can be placed in the robustness of the projections for intervention volumes, given the historic trend of under-delivery.

Table 19: Asset volume delivery movement (NARM and PCD) in years 4 & 5 between RRP24 and RRP25

	Year 4 only	Year 5 only	% movement (Year 4 and Year 5 combined)
<b>% total movement between RRP24 and RRP25</b>	<b>-32.3%</b>	<b>-18.0%</b>	<b>-24.5%</b>

Small rounding errors may exist in the above values.

RRP24 delivery is the forecast delivery within reporting year 4 and year 5 combined.

RRP25 delivery is the actual delivery within reporting year 4 and the forecast delivery in year 5 combined.

+ve values signal an increase between RRP24 and RRP25, -ve values signal a decrease between RRP24 and RRP25

The anticipated volume activity in year five (1,224) requires a significant uplift in activity that has historically been challenging for all TOs to execute. For context, a total volume delivery of 2,918<sup>46</sup> was achieved across the first three years of the RIIO-ET2 price control period.

We also note that the forecast uplift must be accomplished within an increasingly constrained delivery environment, navigating persistent system access limitations, supply chain pressures, and competing priorities arising from growing load-related investment activity and ASTI mobilisation. Achievement of even the current volume activity is therefore dependent on the successful execution of revised delivery strategies, campaign-style outages and strong internal governance.

We note that the shortfall in volumes should be interpreted carefully, as it does not necessarily signal increased network risk when considered in isolation.

Resilience and network risk can be viewed in different ways. For example, NGET notes that risk levels for lead assets classified as high or very high have remained broadly stable throughout RIIO-ET2, with only a 2% average increase—evidence it argues of effective risk management strategies and the prioritisation of critical interventions.

NGET disagrees that the shortfall against the volume delivery target is an effective measure of network risk. Instead, it points to the comparison of the single year risk analysis and the original opening balance of monetised risk (£1,608m<sup>47</sup>) against its current end-of-T2 forecast (£1,540m), based on the latest planned interventions, which indicates a reduction in network risk of approximately 4.2% over the RIIO-T2 period. This figure is anchored to the start of T2 and reflects changes to the original capital plan. NGET cites the forecast risk reduction as evidence of confidence in overall network health and the appropriateness of reduced asset health volumes.

## SPT

SPT's forecast performance for NARM T2 asset delivery to under-deliver by 18% against its original projections when the price control was set. When assessed against the Long-Term Risk Benefit (LTRB) measure, SPT is forecasting performance at 82.4% of its BNRO target by the end of the RIIO-ET2 period.

The shortfall is primarily due to delays in the Glenlee–Tongland modernisation project, accounting for approximately 10% of the NARM shortfall, which has been impacted by a public inquiry for planning consent.

<sup>46</sup> Excluding volumes associated with the Costs outside Submission category.

<sup>47</sup> The RIIO-T2 opening balance of risk, excluding conductors.

The Glenlee-Tongland modernisation project will now be delivered in RIIO-ET3 as determined in the RIIO-ET3 Final Determination. The associated Kendoon–Tongland reinforcement has also been affected.

SPT notes additional factors contributing to under-delivery include:

- **Windyhill 275kV Switchgear Replacement:** Complexities in digital design and multi-manufacturer agreements have caused significant delays, impacting the outage programme.
- **Portobello–Shrubhill 275kV Cable Refurbishment:** Scope expanded after phase one completion, extending delivery beyond T2.
- **Hunterston 400kV Project:** Programme subject to delay due to implementation of a Risk Managed Zone (RMZ) linked to cable sealing end issues near the converter station.

Although progress is expected during RIIO-2, final commissioning for these projects is now anticipated in RIIO-3. Further major projects subject to significant investment that are also unlikely to achieve commissioning within T2 (and contribute to the NARM shortfall) include:

- **XD Route – Kincardine:** Deferred due to contractor availability and resulting outage constraints.
- **Grangemouth Transformer Refurbishment:** Delay in contract award compounded by long lead times for bushings and outage access challenges.
- **Torness Transformer Refurbishments:** Extended timeline as building dismantling was required.
- **Hunterston 132kV Switchgear Replacement:** Slippage driven by complex civil enabling works in a constrained live environment and redesign of GIS building to mitigate digital configuration risks.
- **ZD & ZCS Routes 275kV Refurbishment:** Completion hindered by safety concerns following a vehicle collision with a tower; 98% of works expected within T2.

From an annual reporting perspective, the volume delivery has marginally dropped, increasing the expected shortfall against target volumes across the five-year period (83.5% in 23-24 to 81.5% in 24-25). SPT notes the primary reason to be a movement in forecast delivery due to the ongoing delivery challenges associated with three key constraints (system access, internal resource availability and supply chain capacity). These challenges have impacted delivery in the fourth year of RIIO-ET2 more than SPT expected.

The impact is illustrated in the table below.



Table 20: Five-year Lead Asset volume delivery forecast (NARM only) and movement in volume delivery

Lead Asset category	Movement	RRP25 % movement
Underground cable (cct km)	-24	
Circuit Breaker (#)	-34	
Overhead line fittings (#)	-351	
Overhead line conductor (cct km)	-189	
Reactor (#)	2	
Transformer (#)	-5	
Tower (#)	-515	
<b>NARM sub total</b>	<b>-1115</b>	<b>-18.5%</b>

Small rounding errors may exist in the above values.

RRP24 delivery is the forecast delivery within reporting year 4 and year 5 combined.

RRP25 delivery is the actual delivery within reporting year 4 and the forecast delivery in year 5 combined.

+ve values signal an increase between RRP24 and RRP25, -ve values signal a decrease between RRP24 and RRP25.

Between RRP24 and RRP25, the volume delivery has not improved to the level anticipated, fewer volumes were realised in RRP24 during year 4 than forecast and a greater volume is now anticipated to be delivered in year 5 relative to maintain course to deliver the projected volume across the RIIO-ET2 period. The impact is illustrated in the table below.

Table 21: Asset volume delivery movement (NARM only) in years 4 & 5 between RRP24 and RR25

	Year 4 only	Year 5 only	% movement (Year 4 and Year 5 combined)
<b>% total movement between RRP24 and RRP25</b>	<b>-22.4%</b>	<b>+35.4%</b>	<b>-4.4%</b>

Small rounding errors may exist in the above values.

RRP24 delivery is the forecast delivery within reporting year 4 and year 5 combined.

RRP25 delivery is the actual delivery within reporting year 4 and the forecast delivery in year 5 combined.

+ve values signal an increase between RRP24 and RRP25, -ve values signal a decrease between RRP24 and RRP25

For monetised risk, SPT reports that under the original volume target and delivery plan, the NARM model forecasts achieving 82.4% of the overall risk reduction target over RIIO-ET2 (i.e. currently projected to under-deliver by 17.6% against the original delivery plan<sup>48</sup>). It notes that delivery of switchgear, transformer, and cable intervention programmes has been significantly affected by challenges in design, procurement, and contractor availability.

SPT's forecast delivery in the final year of RIIO-2 must be accomplished within an increasingly constrained delivery environment, navigating persistent system access limitations, supply chain pressures, and competing priorities arising from growing load-related investment activity and ASTI mobilisation. We note that SPT has taken positive steps to adapt to changing market conditions through strategic framework agreements and transformation initiatives, which provides a level of confidence in maintaining the upward trajectory in volume delivery. Progress made towards achieving the end-of-period goals will be subject to ongoing scrutiny through the future annual reporting information provided.

<sup>48</sup> This is an increase in the forecast under delivery across the RIIO-ET2 period submitted in RRP24, which was 10.8%.

We note that SPT remains committed to delivering its RIIO-ET2 planned interventions programme, where they continue to be technically and economically viable, and will work to deliver them as quickly as possible. However, completion of the delayed schemes is expected to extend into the next price control period.

## SHET

SHET reports that the NARM model forecasts that 95% of overall monetised risk reduction target will be achieved over the RIIO-T2 period. **SHET explains that this expected shortfall is due to:**

- delays of c. six months on key projects in OHL Fittings and OHL Towers due to site access and outage constraints (e.g., Harris–Stornoway, Sloy–Windyhill East, Sloy–Windyhill West).
- replacement assets scheduled to be constructed and operational in early RIIO-3<sup>49</sup>.
- LOTI and ASTI projects interacting with some of SHET's T2 baseline NARM projects. **For example, Peterhead Inverugie has seen some tower assets originally in scope removed as part of EGL2. Also, Broadford scope of works amended to align with Skye LOTI.**

The remaining 5% risk reduction relates to delays in the Transformer category which are driven by several factors including supply chain challengers and customer choice. Under this revised plan, SHET remains confident that the target risk reduction will be achieved by the end of the RIIO-T2 period in all other asset categories.

The impact is illustrated in the table below.<sup>50</sup>

Table 22: Five-year Lead Asset volume delivery forecast (NARM only) and movement in volume delivery

Lead Asset category	# Movement	% movement
Underground cable (cct km)	-8	
Circuit Breaker (#)	-34	
Overhead line fittings (#)	-605	
Overhead line conductor (cct km)	-142	
Reactor (#)	0	
Transformer (#) <sup>51</sup>	-41	
Tower (#)	-259	
<b>NARM sub total</b>	<b>-1,089</b>	<b>-23%</b>

Small rounding errors may exist in the above values.

RRP24 delivery is the forecast delivery within reporting year 4 and year 5 combined.

RRP25 delivery is the actual delivery within reporting year 4 and the forecast delivery in year 5 combined.

+ve values signal an increase between RRP24 and RRP25, -ve values signal a decrease between RRP24 and RRP25.

Between RRP24 and RRP25, the expected volume delivery has been realised to the level anticipated, the expected shortfall is maintained against target volumes across the five-year period (77%).

<sup>49</sup> The projected position as of October 2026 reflects SHET's assumption that the target will be revised to account for projects transitioning into T3 or assets replaced or removed through alternative mechanisms, with corresponding allowance handback facilitated.

<sup>50</sup> A small number of projects originally included in the T2 targets now form part of the T3 plan. Further evaluation of risk reduction targets is being discussed (with potential hand-back of allowances at closeout).

<sup>51</sup> SHET has identified several factors impacting its transformer replacement portfolio, including longer-than-expected negotiations with customers on solutions involving connection asset replacements, and significantly increased lead times for transformers, which are affecting delivery schedules.

The impact is illustrated in the table below.

Table 23: Asset volume delivery movement (NARM only) in years 4 & 5 between RRP24 and RRP25

	Year 4 only	Year 5 only	% movement (Year 4 and Year 5 combined)
% total movement between RRP24 and RRP25	0%	-0.3%	-0.3%

Small rounding errors may exist in the above values.

RRP24 delivery is the forecast delivery within reporting year 4 and year 5 combined.

RRP25 delivery is the actual delivery within reporting year 4 and the forecast delivery in year 5 combined.

+ve values signal an increase between RRP24 and RRP25, -ve values signal a decrease between RRP24 and RRP25

SHET explains that it is facing delivery challenges across its portfolio of works that are largely outside its direct control (referred to as ‘technical’ under-delivery<sup>52</sup>). This is driven by:

- customers agreeing to new commercial terms and granting access for transformer replacements
- customers delaying acceptance of proposed solutions, requiring adjustments to programme schedules.

In addition, we note that certain projects experienced changes in investment drivers (e.g., increased demand requiring larger solutions), and SHET’s T3 Plan incorporates moving a small number of projects with material scope changes from T2 to T3 and adapting designs accordingly.<sup>53</sup>

Progress made towards achieving the end-of-period goals will be subject to ongoing scrutiny through the future annual reporting information provided.

### Our view

Asset health interventions across the non-load portfolio have been slower than anticipated, with delays reported by all TOs. This heightens asset deterioration risk and can lead to operational disruption. Maintenance windows often reveal defects requiring further scheduling and mitigation to keep assets safely in service. Actions taken will be scrutinised through annual reporting and NARM submissions.

## Key Delivery Challenges

All TOs face increasing complexity in delivering RIIO-T2 outputs due to accelerated energy transition, growing connection demand, and system access constraints. The key challenges are summarised below.

- **System Access Constraints:** Limited outage windows and competing priorities between load-related and asset health work have driven delays and reprofiling. This has driven NGET into bundling of works into “campaign-style” outages that maximises delivery of work within an outage window but increases the complexity of work programs.
- **Delayed RIIO-1 works and reactive work in RIIO-2:** Forecast overspends are evident in some areas, primarily due to works carried over from RIIO-1 (e.g. NOC flood protection works<sup>54</sup> and across the non-load portfolio). Faults and repairs are also largely reactive, making accurate forecasting difficult.<sup>55</sup>

<sup>52</sup> Delivery is expected beyond the end of T2 due to drivers outside of its control as TO. SHET notes that the consumer is still receiving what it has paid for - it’s simply being delivered later than anticipated.

<sup>53</sup> We note that SHET proposes re-phasing allowances into T3 as part of the NARM T2 closeout process to enable the completion of these projects.

<sup>54</sup> We note that five sites deferred to early RIIO-T3.

<sup>55</sup> We note that increased SF<sub>6</sub> leakage repairs and “Operational Engineering Safety Bulletin” (OESB) interventions were not included in NGET’s RIIO-T2 plan and are reported as overspend.

- **Supply Chain & Resource Limitations:** Shortages of specialist resources, long lead times for critical components, and contractual issues have added cost and schedule risk.
- **Programme Complexity:** High project volumes require rigorous prioritisation and sequencing
- **External Dependencies:** Customer-driven changes and NESO signals have shifted project timings beyond RIIO-T2 and impacted outage scheduling. Connections reform also introduces uncertainty on future customer connections. For SPT, planning delays have been significant and landowners are also expected to become more challenging with greater use of statutory powers.
- **Cyber and resource:** Heightened cybersecurity obligations require significant resource allocation, and statutory requirements (e.g. PCB removal by 2025), present additional system access challenges that were not originally envisaged. These factors have limited the ability to meet original volume targets for PCD and NARM commitments in particular.

Despite these challenges, all TOs report progress in adapting its delivery approach and measures designed to maintain confidence in achieving commitments through the remainder of RIIO-T2.

### Our views

Since the RIIO-ET2 settlement, the delivery landscape has grown increasingly complex, creating significant challenges in meeting CP2030 ambitions while sustaining world-class reliability.

While delivery challenges remain significant, all TOs have introduced strategic interventions and governance measures aimed at improving confidence in meeting RIIO-T2 commitments. Strategic workforce planning and enhanced asset management strategies have been introduced to build capacity and improve risk-based decision-making. For example, NGET has adopted a revised planning strategy, including “campaign-style” outages that bundle work to maximise efficiency and system access and to address poor asset health and evolving customer needs.

However, this confidence should be viewed with caution given the ongoing risks and uncertainties that could impact delivery performance, and we remain concerned about the nature of the delivery challenges that remain for the final year of RIIO-ET2 and beyond.

The focus for the final year will be on sustaining momentum, mitigating emerging risks, and preparing for the transition to RIIO-3. The success of the TO’s strategies, especially in the delivery of the remainder of the RIIO-2 plan and beyond, will be dependent on making a positive impact to improve system access availability, but also to address:

- evolving scope impacting delivery timelines.
- work “readiness”, site access, and resource planning, and
- dependencies on third-party networks and customer activities.

TOs’ response must continue to blend short-term efficiency actions with long-term systemic reforms aligned to Clean Power 2030 objectives and NESO’s System Access Reform programme. This requires practical measures such as revising risk policies and optimising supply chains, alongside a balanced approach to increasing system access supply and reducing demand. Success depends on rapid implementation and transparent progress tracking.

## Areas for Continued Improvement

- Greater clarity on delivery timelines, measurable targets, and integration with NESO's baseline plan.
- More detailed plans for mitigating constraint costs and managing regional interdependencies.
- Increased collaboration and coordination among TOs, NESO, DNOs, and customers.
- Clear strategies to reduce maintenance delays and increase outage availability for critical works.
- Transparency on how mitigation measures affect system reliability and cost.
- Development of metrics and measures to prevent recurring maintenance backlogs and strengthen confidence in delivery.

The challenges ahead are well understood. TOs' ability to address them effectively—and progress toward end-of-period goals—will remain under close scrutiny through future annual reporting and NARM assessments.



## Chapter Four: What level of cost performance are TOs currently anticipating?

A summary of the TO's current view of cost expectations for activities permitted through the framework against the adjusted totex allowance position through to the end of the current five-year RIIO-ET2 period.

### Network Cost Performance

Table 24: TO view of cumulative totex performance and five-year forecast performance

£ bn 18-19 prices	Cumulative Allowance	Cumulative Expenditure	Performance (£m)	Performance (%)	ET2 Allowance	ET2 Forecast	Performance (£m)	Performance (%)
SPT	1.7	1.5	-0.2	-13%	2.7	2.5	-0.1	-5%
NGET <sup>56</sup>	6.0	5.6	-0.4	-7%	7.6	7.5	-0.1	-1%
SHET	2.9	2.4	-0.4	-15%	3.8	3.5	-0.3	-7%
Total				-12%				-6%

#### NOTES:

Cumulative values represent the total across regulatory years 1 to 4 inclusive. ET2 values represent the total forecast five-year position. Impact of estimated value of customer contributions and pipeline log are not included.

Impact of estimated end-of period adjustments, adjustments generated through the operation of volume driver mechanisms and the impact of NGET's one-off charges are included (where applicable).

All SPT allowance values reflect the post-efficiency position.

Positive performance values signal an overspend position (costs exceed allowance), negative performance values signal an underspend.

Table 24 indicates that all TOs currently anticipate underspending relative to their expected totex allowances across the five-year price control period, with forecast underspends ranging between 7% and 1% across the five-year period.

The primary drivers of the totex underspend are associated with costs incurred in load-related activities (new assets) and non-load related activities (monitoring, maintaining, and replacing existing assets).

- **National Grid Electricity Transmission** expect total cost to be marginally below allowance (post adjustment), primarily due to changes in intervention strategies on existing assets. This is concerning given that there is work on outstanding NLR activity that still needs to be carried out. On the LR side, customer-driven changes in the investment portfolio are driving a forecast underspend.
- **Scottish Hydro Electric Transmission** anticipate a modest underspend across the entire RIIO-2 period. This is due to expected reductions in LR activities and the timing and internal processes to progress the necessary NLR activities (shifting significant elements of the work programme into T3 timescales). These reductions are offset by a projected overspend in the indirect cost category, attributed to organisational growth and the increased costs required to deliver Pathway to 2030 commitments.
- **ScottishPower Transmission** expect total cost to be marginally below allowance, primarily due to external challenges in progressing and delivering the capital programme, such as re-profiling activities to manage system access issues. These cost reductions are offset by expected overspend in the indirect cost category, mainly due to the delivery of ASTI projects.

<sup>56</sup> Only NGET provided estimates for proposed end-of-period adjustments. In addition, within-period volume driver adjustments embedded in the Wider Works and Generation Connection mechanisms (licence terms DAF and WWVRt, respectively) apply to NGET only.



## Our views

All TOs have fallen behind their expected delivery schedules. This delay is particularly noticeable in the work programme focused on existing network assets, primarily due to the TOs rescheduling intervention strategies.

While it is not uncommon to see increasing levels of activity throughout a price control period, a significant boost in activity is essential to meet the asset-health related delivery goals and to reach a total spend by March 2026 that aligns with the TOs' current performance estimates.

Although all TOs expect an increase in the scale of delivery, along with a corresponding rise in spending, achieving this will be challenging. The scale of delivery introduces new risks alongside existing market challenges.

As we look ahead to RIIO-3 and the challenge of delivering ASTI commitments, we acknowledge the significant ramp-up required to ensure timely readiness for the scale of investment that the regulatory framework is prepared to support, and we call on TOs to respond.

Across all TOs, the challenge is to respond proactively to this opportunity, continue in their efforts to meet the delivery expectations and outcomes of the RIIO-2 price control, and to facilitate an effective transition towards RIIO-3. Success will require focus on the following:

- **Supply Chain Capacity:** Securing suitable resources, specifically for overhead line upgrade work, remains challenging due to high market demand. We note that all TOs have begun to adapt their business practice to establish long-term programmes and proactive engagement, enabling supply chain partners to invest in recruitment and training (e.g. SPT launched “Strategic Agreements” which have had initial positive impact on its RIIO-ET2 delivery, and NGET launched Partnership agreements focused on improving delivery over the next regulatory period<sup>57</sup>). In parallel, projects must be developed at pace, adopting short design cycles to assist in the acceleration of construction. One example of our proactive investment strategy is the APM<sup>58</sup>.
- **Design Coordination:** The complexity of projects involving multiple contractors creates coordination risks. Strategies must be developed to more effectively coordinate and move at pace and reduce design review and approval times. We note that SPT has implemented a Common Data Environment with BIM-compliant workflows which is expected to enable improved real-time collaboration. The success of this will be closely monitored through future regulatory submissions.
- **Land Rights:** High project volumes require numerous land rights amid competition from solar and battery developers. All TOs must engage early with landowners to secure voluntary agreements—such as purchase options and exclusivity—to de-risk projects and prevent competing claims.
- **Planning & Consents:** We note that securing consents remains a risk and note the delays and restrictions that the Judicial Review process has had on timelines for investment delivery.
- **Environmental concerns:** The scale of investment and delivery raises environmental concerns. TOs must be proactive in exploring alternative design options and conducting appropriate environmental studies with stakeholder groups to identify strategies to manage delivery timetables, address community concerns and adhere to environmental requirements.

<sup>57</sup> More information can be found here: [The Great Grid Partnership | National Grid](#)

<sup>58</sup> <https://www.ofgem.gov.uk/decision/electricity-transmission-advanced-procurement-mechanism>

- **Outages:** Timely system access is critical, with high volumes of planned outages requiring careful coordination. Outages must be approved by NESO and aligned with other TOs. Maintaining a robust, flexible outage strategy is essential for timely delivery and will require further development in the areas of outage readiness, collaborative planning and resource scheduling. We expect TOs to take decisive steps in maintaining transparent communication with key stakeholders and to continue to develop robust contingency plans to economically bundle work and optimise system access, to address potential changes and ensure flexibility in project schedules to accommodate sudden shifts.
- **Competing priorities:** It is naturally difficult to increase activity rates when there is increasing levels of other important work (e.g. ASTI and Net Zero goals) competing for the same resources. The expected increase in activity rates will also place an additional burden on TO's internal decision-making processes to accommodate the increase in total capacity.



## Chapter Five: What additional factors can be considered when presenting TOs' cost performance?

This chapter summarises the TO's current view of adjustments applicable to their RIIO-2 cost performance.

### TO views on performance adjustment factors

The design of the RRP submission is intended to only include allowances that had been subject to a licence determination or already submitted re-openers where we have a high confidence of a successful determination. As such, the totex allowances do not reflect end-of-period adjustments or reconciliation of expenditure to take account of actual delivery within the RIIO-ET2 period via the applicable mechanisms.

Below we highlight the adjustments for these items presented by the TOs and use them to provide an updated view of how costs and underlying allowances compare.

#### NGET

There are three categories of potential adjustment that impact NGET's view on RIIO-ET2 performance. The elements further highlight the ongoing uncertain nature of certain costs and the associated assessments that have yet to take place or not yet concluded.

1. **Baseline "Bridging" projects.** Allowances were set to fund only the efficient costs of the T2 portion of these Infrastructure projects, creating a "bridge" for projects spanning RIIO-2 and RIIO-3 price control periods. Adjustment is required if the bridging project is no longer viable or has been superseded by alternative investment(s), where the delivery timeline has changed or if the investment is being remunerated through an alternative RIIO mechanism.
2. There is a category of activity known as **Permanent Easements** related to access and legal agreements where both parties agree to remove the easement, or if the easement is no longer needed. RIIO-ET2 enables any proportion of allowance not utilised to be returned to consumers.
3. **PCDs** provide specific funding linked to the delivery of outputs specified in each RIIO-2 Licence and either allow allowances to be recovered mechanistically (i.e. automatically), or evaluatively (i.e. requiring review the delivery of the PCD outputs). NGET provide estimates of the expected adjustment for anticipated end-of-period allowance reductions for delayed or non-delivery of PCDs.

The impact of the above elements in relation to NGET's activity is summarised below.

Estimated value of NGET's end-of-period **Load Related** adjustments consist of the following:

- Estimated £260 million - Bridging allowance adjustment. This adjustment contains two elements:
  - c.£250m reconciliation of forecast expenditure associated with projects that are currently expected to complete beyond 31 March 2028 (Table 25 below), and
  - c.£10m associated with removing the baseline funding associated with bridging projects currently expected to complete within the T2+2 period (before 1 April 2028) that have become subject to the uncertainty mechanism to avoid double funding (Table 26 below).

- **Estimated £110 million – adjustment of Preconstruction PCDs.** There are several projects where delivery plans have been impacted due to the changes in the broader energy background and interaction with strategic LOTI and ASTI schemes. NGET have reprofiled allowances for projects that are currently expected to complete and deliver beyond 31 March 2026.
- **Estimated £50 million – adjustment for Easements.** Lower levels of development loss claims have been received than forecast when the RIIO-ET2 baseline (based on historic data) was set, and there is an ongoing level of uncertainty around when claims will occur, and their value. NGET have ‘trued-up’ the level of allowance funding to the actual cost incurred relating to permanent easements, resulting in a large adjustment.<sup>59</sup>

Table 25: NGET’s current view of Bridging allowance true-up

	a. Baseline allowance	c. 5yr Forecast spend	c. Expected spend >RIIO-2	Proposed Adjustment (b-a)
True-up	267	15[Note]	280	-252

Note: Forecast spend includes the impact of one-off contributions within the RIIO-ET2 period.

Table 26: NGET’s current view of Bridging projects subject to adjustment within applicable

	a. Baseline allowance	b. UM allowance	c. 5yr Forecast spend	Proposed adjustment (a)
Uncertainty Mechanism	4	99[Note]	85	-4

Note: UM allowance includes £16.5m ‘DAF’ adjustment applied through the operation of the Wider Works mechanism.

Estimated value of the end-of-period Non-Load Related adjustments consist of the following:

- **£72m – Evaluative PCD SF6.** This reflects NGET’s re-profiling of allowances for delayed delivery into T3 or change in requirements for forecast SF6 interventions.
- **£17m – SF6 reopener.** relating to altered delivery at five sites identified as part of the re-opener.
- **£306m – Mechanistic PCD adjustments.** Table 27 sets out the adjustment by PCD asset type.

Table 27: NGET’s current view of mechanistic PCD performance by type

	A. Direct cost Allowance	B. 5yr Forecast Spend	Adjustment (B-A)
IT	57	36	-13
Bay Assets	37	51	-7
Overhead Line Conductor	297	213	-114
Protection and Control	312	169	-172
	<b>703</b>	<b>467</b>	<b>-306</b>

NOTE: NGET estimates a further £47m funding reduction will apply due to an expected shortfall in NARM volume delivery against RIIO-ET2 targets. This reduction is not included in the analysis.

<sup>59</sup> We expect that more easements will be agreed in future price control periods, driven by the increased need for network reinforcement.

When considering performance against allowances, NGET's view incorporates decisions to phase output delivery and the corresponding impact that this can have on the allowance profile (referred to as "*edge effects*"). These effects relate to the Load Related programme, where the impact of projects crossing price control periods can manifest as an apparent over- or under-spend in one price control period which is then offset in the other price control period.

Currently, NGET anticipates a £310m difference between LR expenditure and adjusted allowances across the five-year price control period. This value is driven by the design of applicable volume driver mechanisms. The differing impacts are explained in the section below.

#### *RIIO-ET1 edge effect*

This adjustment relates to allowances for a group of connection projects and boundary capability works initiated and funded in RIIO-ET1, which were delivered during the first two years of RIIO-ET2 (the "T1+2 period"). For financial reporting purposes, allowances are re-profiled to recognise performance when the output is delivered. For financial reporting, allowances are re-profiled to reflect actual outputs. This accounts for £177m (57%) of the expected £310m difference between costs and allowances over five years. The impact reflects net adjustments across connection volume driver and Wider Works mechanisms. RIIO-ET1 allowances were based on average costs across a broad range of investments, and more projects delivered capacity below this assumed average than above it. For context, these works have a total cost of approximately £280m.

#### *RIIO-ET2 edge effect*

While the T1 edge effect is understood—projects have been completed and re-profiling applied—there is a comparable forward-looking and evolving impact for projects expected to span RIIO-ET2 and RIIO-ET3. Projects scheduled to complete within the first two years of RIIO-ET3 (the "T2+2 period") will qualify for remuneration under the relevant RIIO-ET2 volume driver mechanisms. These projects are currently estimated to represent around £60 million (19%) of the anticipated £310 million gap between costs and allowances over the five-year period.

The impact results from netting off both negative and positive adjustments across both the connection volume driver mechanisms and the Wider Works mechanism. The scale of this adjustment reflects the current expected expenditure to be incurred beyond 31 March 2026 on the associated investments (£175 million) and the estimated allowance generated through the operation of the applicable volume driver mechanisms (£115m).

#### *Other edge effects*

NGET include an estimated value for adjustments related to the continued progression and delivery of projects that are in receipt of funding allowance through RIIO-ET2 framework but are currently expected to incur costs beyond 31 March 2026 that are not fully met by current profile of allowance projected beyond T2. In total, this adjustment is estimated to account for £114m (37%) of the expected difference between costs and allowances across the five-year RIIO-ET2 period. The re-opener framework is the primary driver of this estimated value with expenditure in the post T2 period exceeding allowance profiles by c£100 million and the remaining value associated with baseline projects delivering in the next price control period.

#### **SHET**

SHET's supporting narrative outlined two potential adjustments to its totex performance:

- **Estimated end-of-period hand-back (£155 million):** SHET indicates that several capex projects—primarily non-load—will not be delivered within T2 and are now expected to be completed in the next price control

period. SHET has provided an estimate of the potential allowance ‘hand-back’ associated with these projects.

- **Forecast expenditure on projects spanning price control periods (£221 million):** SHET notes that delays in the capital work programme account for a significant portion of the projected T2 capex underspend. A number of projects will now extend into T3, and SHET estimates the value of T2 capex it proposes to rephase into the next price control period (i.e., potentially excluded from RIIO-ET2 performance measurement).

#### SPT

No estimates of end-of-period adjustments for applicable mechanisms have been provided.

In relation to **forecast expenditure on projects spanning price control periods**, SPT notes that a number of baseline projects across its non-load and load portfolios are currently expected to be delayed and delivered within T3 timescales. Costs incurred on these projects are estimated to exceed the baseline allowances and offset the projected totex underspend reported across the RIIO-2 period. SPT estimates the net value of T2 capex overspend to be c.£50m (pre-efficiency).

*[end]*

