Annual report: Gas Transmission 2024-25

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Executive Summary

As Great Britain continues to push forward the energy transition, the Gas Transmission (GT) network has ongoing importance for energy system reliability. We recently confirmed this in setting out our Final Determinations for the next price control period by approving £3.2bn in up front funding for five years from April 2026, alongside a range of flexible funding tools to respond to emerging needs.[1]

Simultaneously, we have continued to monitor the performance of National Gas Transmission (NGT) across the current price control period (RIIO-GT2) to ensure that it is advancing as expected in delivering their agreed investment plans and outputs.[2]

This report summarises findings from our review of NGT's latest annual data, highlighting key metrics, emerging trends, and performance insights across RIIO-GT2. It assesses delivery over the first four years, evaluates expectations for the remainder of the price control and beyond, and examines the drivers behind plans to achieve end-of-period objectives. Our key observations are:

- Early RIIO-GT2 delivery lagged expectations, with delays to major capital projects. Activity has since accelerated across programmes, showing encouraging progress.
- Final-year plans are highly ambitious, with c.32% of the five-year forecast spend to occur in 2025/26. This scale carries risk, and we will monitor performance closely.
- Four-year cumulative spend is £1,838m vs. £2,054m allowance, an underspend of £216m (10.5%) driven by lower capital investment and operational savings. Year five is forecast to lift RIIO-2 total spend to £2,694m—slightly below the £2,699m allowance by £4m (0.2%)
- NGT reports strong performance in customer service and in minimising shrinkage. It had mixed performance on baseline environmental outputs, meeting their targets in four out of six criteria, but not achieving the required standards in the remaining two.

We are committed to ensuring consumer funding delivers value. Our annual regulatory monitoring is central to this—tracking progress, preventing inefficient costs, and assessing performance. This review reinforces our focus on securing consumer value, enabling strategic investment, and supporting Britain's future energy system.

[1] RIIO-3 Final Determinations for the Electricity Transmission, Gas Distribution and Gas Transmission sectors | Ofgem
[2] RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem

Key findings

Annual Output and Incentive Targets

- **NGT continues to perform strongly against annual targets**, though with some challenges in environmental outputs.
- **Customer service standards remain high** with continued high scores in Customer Satisfaction (CSAT) survey.
- **Entry and exit capacity management performance remains strong**, with revenue growth from non-obligated capacity and effective operational strategies that ensured all potential constraints were managed without additional cost or disruption to customers.
- **Environmental performance remains largely positive**, with strong performance in reducing Greenhouse Gas Emissions (GHGs). However, NGT has seen **mixed results in its Baseline Environmental Incentives** where they have missed two out of the six active baseline environmental target areas.[3]
- NGT has to date earned a cumulative amount of £42.5m from incentive performance during the period of RIIO-GT2.

Innovation expenditure

Innovation projects continue to progress, with NGT registering additional initiatives under the two innovation streams, Network Innovation Allowance (NIA) and Strategic Innovation Fund (SIF). Cumulatively there have been 108 projects initiated and have incurred costs of c.£36m.

Network Asset Risk Metric (NARM)

NGT consider that the majority of its NARM asset health plan is on-track to be delivered by the end of the five-year RIIO-GT2 period.

The outputs are defined using long-term monetised risk benefit (LTRB). The RIIO-GT2 LTRB target is £201m, cumulatively NGT has reported delivery of £156m and is forecasting to achieve the LTRB target. Ofgem continue to monitor the progress of delivery and will assess mitigation plans for any non- delivery.

Expenditure and delivery

NGT is forecasting RIIO-GT2 total spend of £2,694m. This represents £4.3m (0.16%) less than the allowance for RIIO-GT2. The split between Transmission Operator (TO) and System Operator (SO) expenditure is below.

Table 1: Forecast five-year total cost performance (£m and %)

TO	3.0% overspend
SO	14.7% underspend
NGT (combined)	0.16% underspend

To deliver its 5-year targets, NGT forecasts to spend £856m in 2025/26. This represents a significant ramp up in expenditure and delivery for the final year of RIIO-GT2.

Due to this, there is a risk some of the delivery targets within the asset health upgrade programme and compressor emissions investments may not be fully achieved. We are monitoring delivery, and our regulatory framework will ensure that consumers only pay where there is efficient delivery by network companies.

[3] The baseline environmental incentive consists of seven components.

Chapter One: Outputs and annual incentive performance

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

Summary of output delivery incentive (ODI) performance

During each price control period, we monitor how well companies deliver across three overarching RIIO-2 outcomes:

1. Meeting the needs of consumers and network users
2. Maintaining a safe and resilient network
3. Delivering an environmentally sustainable network

The table below provides an overview of NGT's performance across all categories in 2024-25.

Table 2: Measures of performance

Incentive area	RIIO measure	Output Category	NGT 2024-25 Performance
Customer Satisfaction Survey	A financial output to incentivise NGT to uphold high standards of customer service	1	Met
Stakeholder Satisfaction Survey	Financial incentive to encourage high levels of stakeholder satisfaction	1	Met
Quality of Demand Forecast	Deliver accurate day ahead demand forecasting	1	Met
Maintenance	Benchmark performance for maintenance outage day, and to minimise NGT driven changes to planning	1	Met
Entry and Exit capacity constraint management	Meet constraint management target by driving NGT to maximise available network capacity and minimise constraint management costs	1	Met
Residual Balancing	Financial incentive to encourage the residual balancing of supply and demand of the NTS while minimising the impact of any actions on market prices[4]	1	Met
NARM	Delivery of baseline network risk outputs (LTRB) through asset health investment	2	Met
Asset health non-lead assets	Delivery of agreed AH non-lead assets volumes	2	Met
Greenhouse Gas Emissions (Compressor Venting)	Financial incentive to encourage NGT to consider environmental impacts when making decisions about venting natural gas from NTS compressors	3	Met
NTS Shrinkage	Reputational output, designed to incentivise NGT to reduce shrinkage of gas from the daily operation of the national pipe network	3	Met
Baseline Environmental Targets	Financial incentive to encourage NGT to outperform selected RIIO-2 targets in its Environmental Action Plan	3	Mixed performance across output areas

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.

[4] This output consists of two elements: the Linepack Performance Measure (LPM) and the Price Performance Measure (PPM). NGT failed to achieve - the PPM target in 2021/22 and 2022/23 but achieved in 2023/24.

Summary of ODI reward and penalty performance summary

Table 3: NGT ODI revenue rewards & penalties (RIIO- GT2)

Mechanism	Incentive applies to the System Operator or Transmission Owner (SO/TO)	NGT 2024/25 performance reward/ penalty (£m)	NGT cumulative performance reward/ penalty (£m)
Customer satisfaction survey	**TO**	**3.6**	**14.6**
Quality of demand forecasting	**SO**	**0.2**	**0.5**
Maintenance	**SO**	**0.5**	**2.0**
Entry/exit capacity management	**SO**	**3.8**	**17.3**
Residual balancing	**SO**	**1.1**	**2.4**
Greenhouse gas emissions	**SO**	**1.5**	**5.3**
Baseline Environmental Targets	**TO**	**0.1**	**0.4**
TOTAL		**10.8**	**42.5**

Table 3 summarises the cumulative revenue rewards and penalties accrued so far by NGT over Years 1 to 4 of RIIO-GT2.

- **NGT has earned £17.3m for entry/exit capacity management**, underlining efficient capacity allocation and system balancing. Performance has been strong for NGT in this incentive over the course of RIIO-GT2
- **Customer Satisfaction Survey performance has generated £14.6m** in reward for NGT. Performance in this incentive has been strong throughout RIIO-GT2, demonstrating that the mechanism is effectively driving the intended behaviours.
- **GHG performance generated a total of £5.3m** in rewards, demonstrating progress in reducing leakage and supporting environmental commitments. This year, NGT have earned £1.5m the highest amount in RIIO-GT2 suggesting improved performance.
- NGT received £0.4m in cumulative rewards for environmental performance; however, in 2024/25 the incentive generated a net reward of only £0.1m. The value of rewards was offset by penalties within this output category, indicating challenges for NGT in meeting its commitments under this incentive.

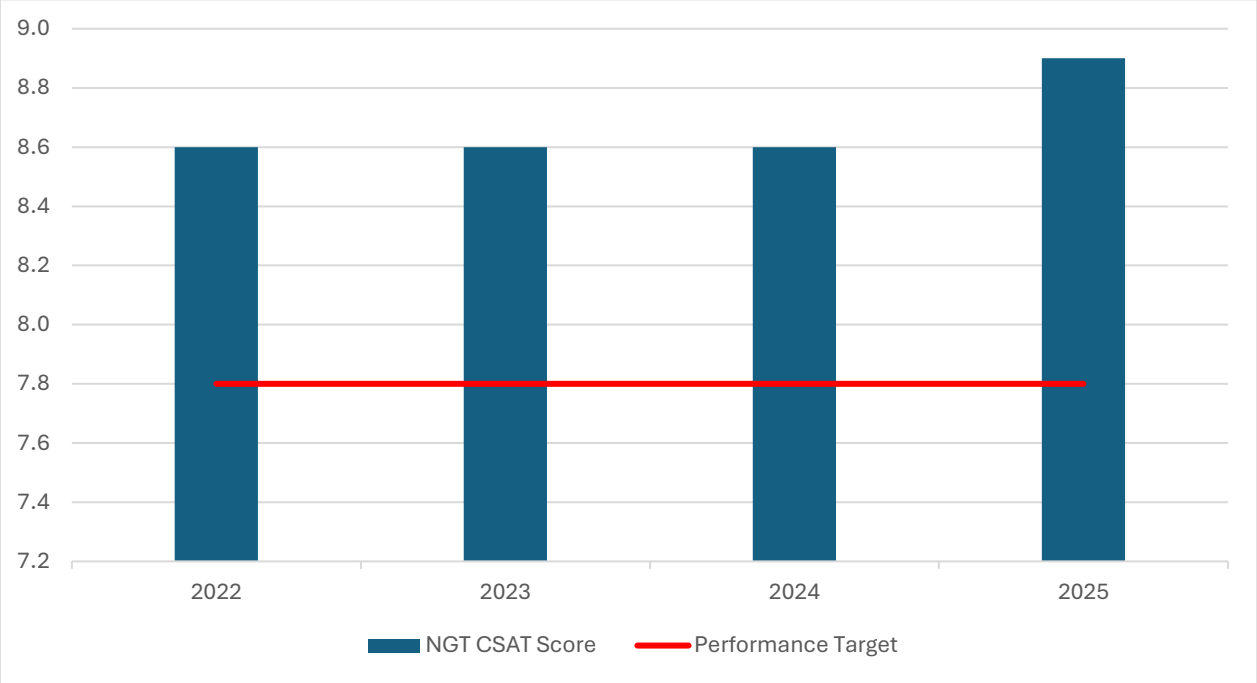
Performance on meeting the needs of consumers and network users

NGT has performed to a high standard, meeting all its performance targets related to the outputs and incentives in this category. It has demonstrated this by:

- consistently achieving strong scores in both customer and stakeholder satisfaction measures
- maintaining or improving its incentive performance across the four other measures in this output category: residual balancing, demand forecasting, constraint management, and all elements of the maintenance incentive.

NGT customer satisfaction survey

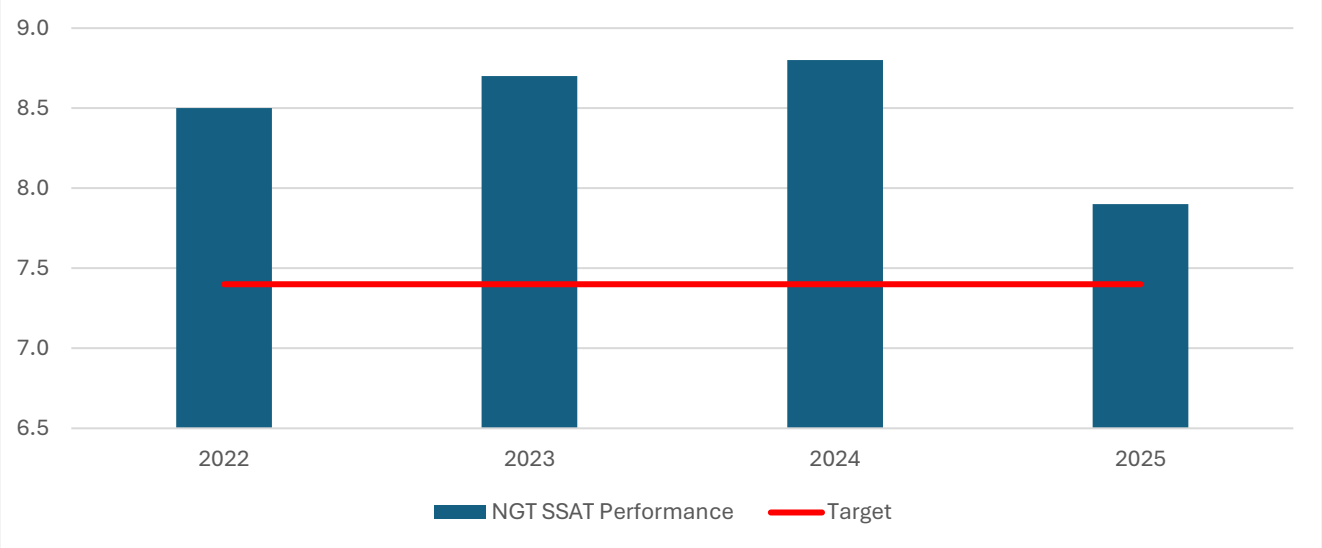
Figure 1: NGT customer satisfaction survey (2021-2025)



Our view-: In 2024/25, NGT exceeded its customer satisfaction performance target, achieving a score of 8.9 against a target of 7.8, the highest score to date, and earning a reward of £3.6m. This continues a strong track record of consistently meeting or exceeding customer satisfaction targets throughout RIIO-GT2.

Stakeholder satisfaction survey (SSAT)

Figure 2: NGT Stakeholder satisfaction survey (2021-2025)



In 2024/25 NGT has continued to exceed its stakeholder satisfaction target achieving a score of 7.9 against a target of 7.4.

However, performance has declined compared to earlier years of the price control period. NGT attributes this partly to expanding its survey audience to include procurement partners, who highlighted communication challenges—particularly regarding speed and ease of interactions with NGT.

To address these concerns, NGT has implemented several mitigation measures:

- Increasing regular touchpoints with business areas to act on CSAT and SSAT feedback
- Enhancing risk management and escalation processes to improve issue awareness and reduce response delays
- Streamlining internal and external processes to strengthen customer service and stakeholder relationships

NGT expects these actions to drive performance improvements for the remainder of RIIO-GT2. We will continue to monitor progress closely.

Our view: While expanding the survey audience to include procurement partners has provided a broader perspective, it has also highlighted weaknesses in NGT's communication with stakeholders. We welcome the steps NGT has taken to address these issues and will continue to monitor progress closely to ensure improvements are delivered in the final year of GT2.

Entry and exit capacity constraint management

Table 4 - NGT Entry and exit capacity constraint management reward throughout RIIO GT-2

	2021-22	2022-23	2023-24	2024-25	Total
Entry and Exit capacity constraint management	£5.2m	£4.6m	£3.7m	£3.8m	**£17.3m**

Under the Gas Transmission licence, there are two types of entry and exit capacity for constraint management: obligated capacity and non-obligated capacity. Obligated capacity refers to the minimum level of entry and exit capacity that NGT is required to make available at each point on the network. This is mandated by regulation and forms part of its licence conditions.

Non-Obligated capacity is additional capacity that NGT may release at its discretion. It is not mandated by regulation and can be withdrawn if system constraints arise. This discretionary capacity is typically offered to meet short-term market demand and provides flexibility for shippers, but its availability depends on network conditions and operational limits.

This financial incentive looks at the balance between:

- Revenue from selling extra non-obligated capacity, and
- Costs of NGT managing any resulting constraints (such as compressor adjustments or commercial buy-back actions).

This aims to benefit the end consumer by:

- Lower costs passed through to bills: When NGT can avoid expensive constraint actions such as buying back capacity or running compressors inefficiently, these costs do not feed into network charges that ultimately flow through to consumer energy bills.
- Stable and reliable gas supply: By managing constraints effectively and releasing additional capacity where possible, NGT helps maintain system flexibility and security of supply, reducing the risk of shortages or price spikes.
- Market efficiency: Making discretionary non-obligated capacity available supports market liquidity and competition in the wholesale gas market, which can in turn help keep prices down for consumers.

In 2024/25, NGT continued to maximise available network capacity and minimise constraint management costs through effective planning and operational strategies. By adjusting compressor operations at key sites, NGT kept pressures stable and avoided costly intervention (e.g. commercial buy back).

In addition to avoiding constraint costs NGT saw a 24% increase in revenue from the release of non-obligated Entry and Exit capacity bringing in £9.1 million revenue. This increase in non-obligated capacity put NGT's net position above its £8.5m target, meaning it earned a £3.8m reward under the incentive. Entry capacity was the main driver of this, contributing £5.1m due to strong short-term sales at Rough and Bacton UKCS. Exit capacity fell 15% compared to 2023/24 £4m due to fewer short-term bookings, especially at Bacton Exit IP.

Our view: Overall, NGT's performance demonstrates delivery of efficient constraint management through its actions to avoid constraint costs and its ability to sell greater amounts of non-obligated capacity. This is

delivering tangible benefits to both the industry and end consumers by providing a stable and reliable gas supply and preventing the cost of expensive constraint actions from being passed through to consumers.

Residual balancing

Table 5 - 2024/25 NGT linepack performance measure (*LPM)* & price performance measure (*PPM)*

LPM target level	NGT 2024/25 LPM performance	PPM target level	NGT 2024/25 PPM performance
2.8 mcm/d	1.6 mcm/d Performance was below the target on 309 days (85%), an improvement from 287 days (78%) in 2023/24. On the 56 days where performance missed the target, LPM changes averaged over 4 mcm/d and peaked at 8+ mcm/d, compared to 3.9 mcm/d average and 7.9 mcm/d peak on 79 days in 2023/24.	**1.5%**	0.5% Marked an improvement from 0.9% in 2023/24. There were 31 days where the spread exceeded the target, peaking at over 8%. Residual Balancing actions were taken on 235 days (64%), slightly fewer than 241 days (66%) in the previous year. On action days, the average spread was 0.8%, down from 1.4% in 2023/24.

Notes: mcm/d stands for millions of cubic meters per day moving through the gas transmission system. Any NGT performance below the Final Determination targets—LPM at 2.8 mcm/d and PPM at 1.5%—is considered compliant with or exceeding the established targets.

This financial incentive seeks to encourage and reward effective performance in managing the residual balancing of supply and demand of NGT's network while minimising the impact of any actions on market prices. The aim of this incentive is for NGT to provide a more balanced supply and demand with minimised impact on market prices and cost to consumers.

This output consists of two elements which both have reward/ penalty incentives:

- the linepack performance measure (LPM) which incentivises NGT to minimise the differences in the linepack volumes measured at the start and end of each gas day; and
- price performance measure (PPM) which PPM incentivises NGT to evaluate the impact it has on the market in its residual balancing role by measuring the price range of its residual balancing trading actions compared to the System Average Price (SAP).

Our view: Overall, performance in both LPM and PPM elements has improved in 2024/25 compared to 2023/24, with fewer days missing incentive targets and better spreads during intervention days. However, recurring non-compliant days, and the volatility observed on those occasions, highlight areas where further improvement is needed. NGT continues internal reporting and is actively engaging with shippers and the wider industry to better understand the drivers of balancing behaviours and associated risks—efforts that are critical to sustaining progress and reducing volatility in future years.

Maintaining a safe and resilient network

This section provides an overview for how NGT has performed against deliverables that fall within 'Maintaining a safe and resilient network.' The key specific deliverables include:

Safety

NGT delivered strong safety performance in 2024/25. Nine high potential controllable events were reported and addressed, with no tier one or two process safety events or public safety injuries. All planned safety leadership visits were completed, reinforcing engagement across sites. Investigation quality reached 66%, with actions underway to improve timeliness and consistency. Overall, NGT maintained legislative compliance and advanced operational improvements, underscoring its commitment to continuous safety enhancement.

Network Asset Risk Metric (NARM)

NARM uses monetised risk as the primary measure for defining outputs and setting allowances for asset management activities. Outputs are defined using long-term monetised risk benefit (LTRB), which aggregates single-year risk values over a multi-year period.

In 2024/25, NGT reported delivery of an additional R£71.9m[5] in LTRB, subject to completion and final submission, bringing cumulative Year 1–4 RIIO-GT2 delivery to R£156.1m, against a target of R£200.8m. This year also saw the return of the final asset health uncertainty mechanism for Plant and Equipment, which will result in a restatement of the LTRB target using the original methodology.

NGT states that the majority of its asset health plan continues to be delivered under NARM.

Asset Health non-lead assets

Non-lead assets include assets that support the operation of lead assets by ensuring physical security, structural integrity and safe access. NGT explains that it has adopted a strategic bundling approach for non-lead asset interventions— such as fences, gates, pipe support— within the National Above Ground Installation Renovation Campaign (NARC) to improve efficiency and timeliness. NGT highlights that early planning and a shift to a blended delivery model, combining internal teams with external contractors and third-party partners, have strengthened project control and accelerated delivery, while setting clear objectives for the final year.

NGT has achieved significant volumes across key sub-themes.

- Cabs and Compressor assets: Works completed at six sites, with scope developed for three more.
- Structural Integrity: Interventions increased to 525 (up from 443 in 2023/24) across 43 sites.
- Lighting: Delivered 16 interventions under the electrical campaign, with additional works ongoing through operational teams for improved value.

Overall delivery remains on target, though NGT note that the types of interventions being carried out differ to those in their original business plan. Across five sub-themes of security, pipe supports, access roads, lighting, and major civils remediation 18 of 33 intervention types NGT have taken have baseline funding with defined volume targets.

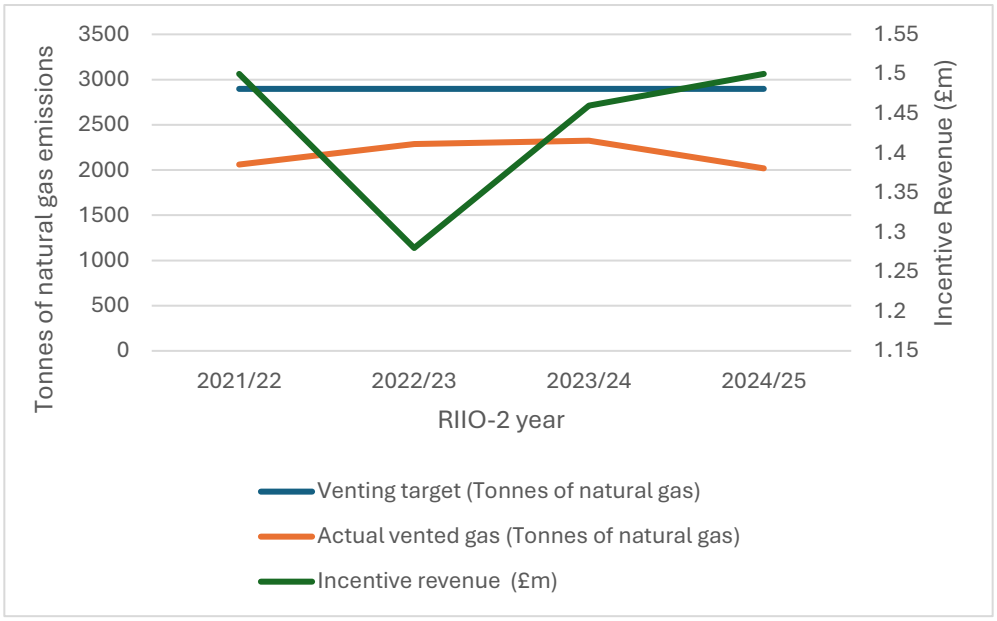
[5] R£ refers to 'risk pounds' a monetised measure of risk reduction expressed in pounds sterling.

Our view: We consider NGT's strategic bundling approach and blended delivery model to have improved efficiency and accelerated progress on non-lead asset interventions. Overall delivery is on target, and we will continue to monitor delivery of all intervention types into the final year of RIIO-GT2.

Deliver an environmentally sustainable network

Greenhouse gas emissions (venting)

Figure 3- GHG ODI-F performance RIIO-2



This financial incentive is designed to encourage NGT to consider environmental impacts when making decisions about venting natural gas from NTS compressors with the aim to reduce NGTs environmental impact from compressor venting.

NGT reports continued progress against this incentive, reducing natural gas venting from compressors and minimising environmental impact. Total compressor venting was 1,982 tonnes (excluding 36 tonnes of site vents outside the incentive) representing a 13.56% reduction from 2023/24 and the lowest level in the past decade. This compares favourably against the annual target of 2,897 tonnes, meaning NGT remains well within its target.

NGT attributes their improvement to several initiatives, including proactive compressor management, enhanced system control, optimised engine inhibition, and strategic maintenance alignment. These measures collectively delivered significant reductions, such as a 21% decrease in static seal losses and a 16% reduction in emergency shutdown venting, alongside targeted summer inhibition and winter readiness actions.

Our view: NGT has delivered strong performance against its greenhouse gas venting targets, demonstrating effective management and a commitment to environmental stewardship.

Gas lost from the National Transmission System during transportation (Shrinkage)

Table 6 - NGT's shrinkage gas volumes 2023/24 to 2024/25

Shrinkage Category	2023/24 performance (measured in GWh)	2024/25 performance (measured in GWh)
Own Use Gas	1040	809
Calorific Value Shrinkage	443	257
Unaccounted for Gas	1607	1715
Total Shrinkage Volumes	3090	2782

Note: GWh means Gigawatt per hour

This reputational output is designed to incentivise NGT to reduce shrinkage of gas from the daily operation of the national pipe network with the aim to lower methane emissions and avoid the cost of purchasing replacement gas. The 2024/25 figure of 2,782 GWh reflects improved performance compared to the previous year, indicating a reduction in emissions, which NGT primarily achieved through a decrease in compressor usage by approximately 6,087 hours.

Shrinkage energy is categorised as the energy:

- to run compressors (compressor fuel usage).
- that does not satisfy the Calorific Value standards (Calorific Value Shrinkage); and
- that is lost or unaccounted for (Unaccounted for Gas).

NGT reports that total NTS Shrinkage costs for 2024/25 were £96.5m, around £11m lower than 2023/24. This comprises of £69.7m for gas, £24.1m for electricity, and £2.6m for emissions.[6] These costs reflect the procurement of the energy and emissions required to cover the shrinkage volumes set out in Table 6. While the 2,782 GWh of shrinkage represents the total volume of shrinkage, the associated £96.5m reflects the financial cost of procuring that energy. Gas procurement costs of £68.4m were broadly aligned with the benchmark of £67.0m. NGT attributes cost performance to its trading strategy, which balanced forward and prompt market procurement to manage price risk amid continued geopolitical volatility. Market prices fell significantly ahead of 2024/25, though intra-year fluctuations persisted.

Our view: In terms of volumes, it is positive to see improvement in NGT's shrinkage performance. Continued focus on operational efficiency and risk management will be essential to sustain these.

[6] The emissions cost relates to greenhouse-gas reporting and compliance obligation

Baseline Environmental Targets

Table 7 - 2024/2025 NGT Performance against its baseline environmental targets

Baseline Environmental Target Measure	Baseline levels	NGT 2024/25 Performance
Reduce operational transport emissions (tCO2e) (%change)	1748	1896 8% higher than baseline levels
Reduce Business milage emissions (tCO2e) (%change)	1608	776 52% lower than baseline level
Percentage of operational and office rate recycled (value)	54.60 tonnes 61% recycle rate needed this year for reward 53% recycle rate needed to avoid penalty	385.92/ 767.98 tonnes recycled 50% difference to baseline
Office waste generated in tonnes (%change)	54.60 tonnes 10% reduction to baseline level needed for reward 6% reduction to baseline level needed to avoid penalty	22.43t 58.9% lower than baseline level
Reduce office water use (% change)	7390m3	2648m3 64.1% lower than the baseline level
Increase the environmental value of non-operational land (£) (% change)	32.92	3.89m £1.1m increment representing a 3.4% increase
Increase the Biodiversity Net Gain (BNG) on new network projects	All years in RIIO GT2	Not triggered in 2024/25

Green means 'Met': performance on target / target met. Red means 'Not met': performance missing target.

We apply financial incentives to encourage NGT to exceed selected EAP targets. These measures aim further reduce carbon emissions, improve the environment, and reduce resource use for the benefit of consumers.

NGT's performance was mixed across the seven measures that are included in the environmental targets. This year NGT met targets in four criteria (business mileage, office waste generated, office water use, environmental value of non-operational land) and underperformed across two criteria.[7]

Our view: NGT's environmental performance demonstrates clear progress in some areas but falls short in others. Targeted action will be essential from NGT to address underperformance in specific areas to ensure that all EAP targets are met in the final year of RIIO-2. We will continue to engage closely with NGT on how to improve the delivery of these outputs during the final year of RIIO-2.

[7] Biodiversity net gain has been left out as it is not activated on an annual basis and will be measured at the end of the price control.

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 Framework

The RIIO-2 innovation package encourages NGT to do more than business as usual when it comes to finding a better, cheaper, smarter or more agile way of doing things.

The innovation package includes the Network Innovation Allowance (NIA) and the Strategic Innovation Fund (SIF). The NIA is designed to enable NGT to take forward innovation projects that have the potential to address consumer vulnerability and/or deliver longer–term financial and environmental benefits for consumers. The SIF seeks to provide flexibility to respond to innovation challenges as they arise, and potentially secure additional innovation funding for eligible SIF Projects.[8]

A further mechanism, the Network Innovation Competition (NIC), ran during the RIIO-GT1 price control period to fund innovative low carbon or environmental projects. Governance provisions remain for ongoing projects carried on into RIIO-GT2.

NGT's Innovation Strategy

NGT is in a unique position, as owner and operator of the National Transmission System (NTS) to take a leading role in whole energy system thinking. NGT is working closely with the other electricity and gas networks to build future interactions across the energy networks and are supporting NGT's network transition to help achieve net zero targets.

Three strands focused on **decarbonisation**:

1. **Fit for the Future:** Extend life of assets for hydrogen blends; RIIO-2 forecast spend £26.7m.
2. **Ready for Decarbonisation:** Prepare NTS for net zero gases; RIIO-2 forecast spend £21.8m.
3. **Decarbonised Energy System:** Assess hydrogen impact on NTS and customers; RIIO-2 forecast spend £41.3m.

Funding Streams

Innovation activity has been supported through a range of established funding mechanisms.

Under the **Network Innovation Allowance (NIA)**, an allowance of £25 million was made available, supporting a total of 82 approved projects. By the end of Year 4, 63 of these projects had been completed, with a cumulative spend of £20 million. This leaves a remaining budget of £4.8 million to support further activity.

The **Strategic Innovation Fund (SIF)** has an overall allowance of £29.1 million. To date, £15.4 million has been invested in hydrogen development projects, including initiatives focused on asset repurposing, hydrogen storage, and waste heat utilisation. Looking ahead, future SIF projects are intended to address key challenges

[8] Details on the fund and project decisions can be found here: Strategic Innovation Fund publications | Ofgem

raised by Ofgem, such as accelerating the decommissioning of assets and exploring alternative uses for existing infrastructure.

In addition, £9.7 million was awarded through the **Network Innovation Competition** (NIC) to deliver the FutureGrid hydrogen test facility. The project was completed under budget at £8.8 million and provides a critical capability to support the long-term conversion of the National Transmission System (NTS) to hydrogen.

Looking Forward

Networks play a central role in enabling innovation that reduces costs and delivers new and improved services for consumers. Regulatory regimes are expected to continue evolving to support more efficient service provision, placing increasing emphasis on innovation, value for money, and strengthened reporting requirements.

Chapter Three: What level of cost performance is NGT currently anticipating?

A summary of NGT'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-GT2 period.

Network Cost Performance

Table 8 - Totex performance by function (cumulative and five-year forecast)

	Cumulative Years 1-4			RIIO-GT2		
£ million, 2018-19 prices	**TO**	**SO**	**Cumulative Years 1-4 Total**	**TO**	**SO**	**RIIO-GT2 Total**
a. Current forecast of RIIO-2 expenditure	1536	302	1838	2,278	416	2694
b. Current forecast of RIIO-2 allowance	1659	395	2054	2,211	488	2699
Performance (a-b)	(123)	(93)	(216)	67	(72)	(4)
(Under)/overspend %	(7.4%)	(23.5%)	(10.5%)	3.0%	(14.7%)	(0.2%)

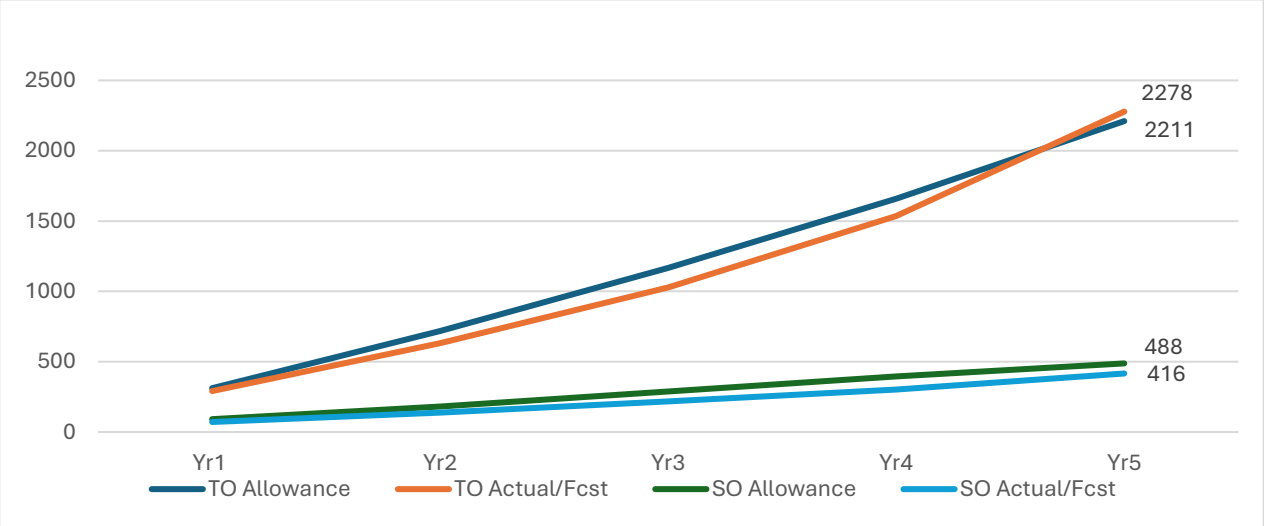
Note: Figures in brackets relates to underspend on allowance.

NGT is forecasting total cost (totex) for RIIO-2 to be in line with the totex allowance. It is expecting a marginal underspend of £4m representing 0.2% underspend against RIIO-2 allowance.

The cumulative underspend (10.5%) is primarily driven by delays in TO investment projects e.g. Asset Health, compressor emissions and SO underspends in operational expenditure and IT investments. This cumulative underspend is forecasted to be wiped out in Year 5 i.e. bringing it down from 10.5% to 0.2% by the end of the price control mainly driven by higher capital spend in both TO and SO.

Our view: NGT remains confident in its cost forecasts and full delivery of its planned capital programmes. However, delays in commencing the major capital projects i.e. asset health programme and compressor emissions investments have seen major spend pushed to Year 5 to catch up on these projects. This creates a risk that some elements may not be fully delivered and could roll over into RIIO-3. We are closely monitoring progress, and our regulatory framework ensures consumers only pay for efficient delivery by network companies.

Figure 5 – NGT totex spend (£m's) against the adjusted allowance across the five-year RIIO-2 period



This chart shows the cumulative annual variance between actual spend and allowances for Years 1–4, along with the forecast for Year 5. The key performance drivers are outlined below, grouped by TO activity SO activity.

Transmission Operator (TO)

Table 9 – Breakdown of TO's cumulative and five-year forecast costs against allowance by key cost categories

	Cumulative Years 1-4				RIIO-GT2			
£ million, 2018-19 prices	**Spend**	**Allowance**	**Variance £m**	**Variance %**	**Spend**	**Allowance**	**Variance £m**	**Variance %**
a. Capex - Load Related	15	9	6	62%	25	18	7	37%
b. Capex - Non-Load Related	658	715	(57)	(8%)	1,007	958	49	5%
c. Capex - Non-op & other capex	377	421	(44)	(10%)	582	581	1	0%
d. Opex - Direct	162	170	(8)	(5%)	201	210	(10)	(5%)
e. Opex - Indirect	323	342	(20)	(6%)	463	443	21	5%
Total (a+b+c+d+e)	**1536**	**1659**	**(123)**	**(7%)**	**2,278**	**2,211**	**67**	**3%**

NGT's cumulative TO spend over the first four years of RIIO-GT2 is £1,536m against an allowance of £1,659m, resulting in an underspend of £123m (7%). The underspend is driven by lower spend from the delays in capital expenditure (capex) projects such as asset health upgrade and compressor emissions investments. There are also operational expenditure (opex) savings from staff costs and lower IT investments costs.

NGT forecasts RIIO-GT2 spend of £2,278m against an allowance of £2,211m—an overspend of £67m (3%). The main driver is higher Year 5 capex to recover delays from earlier years.

Further details for each cost category are provided below.

Load related capital expenditure (LR capex)

This is investment required to connect gas loads coming to, and off, the NTS from customers and to ensure that the NTS can cope with the changing pattern of flows on the network.

Cumulative year 1 to 4 spend on LR capex is approximately £6m higher than NGT's allowance. This is mainly driven by additional spend on commissioning the Electric Variable Speed drive (VSD) at Felindre. This work has been carried over from RIIO-GT1. NGT anticipate operational and asset acceptance to be completed by end of December 2025 and the VSD will be fully operational.

NGT forecast that LR Capex will be £7m above allowance of £18m across the RIIO-GT2 period. Around £10m is expected to be spent in Year 5, primarily on Front-End Engineering Design (FEED) for Project Union[9]—a proposed national hydrogen transmission network designed to transport 100% hydrogen gas.

Non load related capital expenditure (NLR capex)

This principally comprises of expenditure required to replace or refurbish existing primary (e.g. pipelines, compressor sites, entry/exit points, etc) and secondary (e.g. gas generators, exhausts, pig traps, isolation valves, etc) assets on the network. It also includes expenditure relating to areas such as the reduction of direct emissions from the operation of the NTS, network resilience, and physical security.

NGT has cumulatively underspent against its NLR capex allowances. This is due to delays in starting planned investments i.e. compressor emissions and asset health. The underspend is partly offset by spend from RIIO-1 carry over projects and preparatory works for RIIO-3.

NGT is forecasting a significant increase in NLR costs for year 5 i.e. £349m which is 35% of the total NLR spend for RIIO-GT2 and include c. £20m preparatory work for RIIO-G3 activities. We believe there is a risk that Year 5 plans may not be fully delivered arising from a potential mix of delays in supply chain, skill shortages and adverse weather conditions. The forecast RIIO-GT2 expenditure of £1,007m represents an overspend of £49m (5%) against the allowance of £958m.

Key sub-categories driving the above performance in NLR capex are:

Compressor emissions

These works ensure NGT assets are compliant with the Medium Combustion Plant Directive (MCPD) and Large Combustion Plant Directive (LCPD) elements of the Industrial Emissions Directive (IED) at the following sites: Peterborough, Huntingdon, Hatton, St Fergus, Wormington, and King's Lynn.

There is cumulative underspend of £28m (18.4%) against NGT's allowance. This is mainly driven by additional spend incurred in Hatton investments due to programme slippages from late design changes, re-work by contractors to change materials and adverse weather conditions in the project areas in 2023 and 2024.

NGT forecast RIIO-2 spend to be £225m against an allowance of £205m primarily due to Hatton overspend explained above.

Asset Health programme

Asset Health (AH) is an investment programme to upgrade assets across NGT and to develop them to maintain a safe, reliable and secure network.

The outputs of AH investment will be measured through NARMs (Network Asset Risk Metric) methodology, which measures the long-term monetised risk benefits (LTRB) delivered by investments (corresponding to the

[9] Project Union – Energising Britain | National Gas

life of the asset, or intervention). While the AH programme is made up of hundreds of individual interventions, RIIO-GT2 outputs is based on two high level Price Control Deliverable (PCDs) i.e.

- NARMS PCD target of £201m of LTRB and
- Non-Lead Asset PCD target of 3,047 intervention volumes.

The programme has a total allowance value of £596m across the RIIO-2 period. The Cumulative spend across the four-year period is £386m, which is below the allowance of £442m for the same period (i.e. 12.6% underspend). The underspend is mainly driven by delays in implementing investment schemes (longer planning & design stages).

NGT currently forecasts £173m of spend being incurred in Year 5, with the aim to recover earlier delays, bringing total RIIO-GT2 expenditure to £558m. The RIIO-GT2 forecast is £37m (6.1%) below the planned allowance. While NGT is confident in achieving this, we will continue to monitor delivery as there remains a risk that full completion may not be achieved.

Other non-load
These costs mainly consist of RIIO-1 carry over costs for the works at Peterborough and Huntingdon which include asset upgrade, complying with IED, Integrated Pollution Prevention and Control (IPPC) legislation and investment in security resilience. Other non-load cost also includes redundant assets decommissioning and Front End Engineering Design (FEED) for Bacton Site Redevelopment and Kings Lynn Subsidence.

The cumulative spend across the four-year period is £149m which is 23% higher than the allowance for the same period. The overspend is driven by higher spend on Peterborough and Huntingdon which is largely offset by lower spend in redundant assets decommissioning, Bacton site redevelopment, etc.

NGT's current forecast is for total costs to reach £223m across the RIIO-GT2 period, which is above the allowance of £157m. NGT has said that the higher spend is primarily due to the project delays and higher material costs.

Non-operational & other capital expenditure
Non-operational capex are investments in assets that do not directly relate to transmission operations. Costs in this area include IT projects, costs associated with vehicle fleets and property expenditure. For other capital expenditure the key costs relate to cyber and physical resilience investments. NGT has cumulatively underspent (approximately £16m) against the allowance against these two capex cost categories. Further details on the two cost categories are provided below.

Non-operational capex cumulative spend is £86m, which is £16m below allowance. The underspend is driven by delays in IT and a change in accounting rules for cloud computing related expenses which is now recorded as indirect opex under Software as a service (SaaS) accounting rules (i.e. IFRS 16) and no longer capitalised. NGT forecast total spend over RIIO-GT2 to be £121m which include additional spend in year 5 preparing for RIIO-3 activities.

For Other Capex the cumulative spend is £291m, which is £28m below allowance. The underspend relates to lower cyber and physical resilience costs arising from delays in strategic asset replacements which this resilience cost is expected to protect. NGT is forecasting RIIO-GT2 spend of £462m against £459m i.e. an overspend of £1.8m. The higher spend in Year 5 is due to planned catchup in the Operational Technology (OT) spend.

Operating expenditure (Opex)

This has two components; direct and indirect opex costs, refer to the accompanying datafile for breakdown.

Direct opex relates to expenditure directly impacting operational performance such as maintenance (planned and unplanned) and operational property costs.

The forecast spend over RIIO-2 is £201m against an allowance of £210m, which is approximately £10m lower than the allowance. The cumulative four-year direct opex spend is £163m, which is around £8m lower than the allowance for the same period. The underspend due to lower planned inspections and maintenance costs, labour and procurement cost savings but partly offset by higher fault costs from increased unplanned line-walking and higher operational property costs.

Indirect opex is the ongoing cost of running the business and disaggregated into three main components:

- **Business Support**: these are costs that support the business functions of the organisation such as shared group costs (e.g. group management, finance, regulation, etc) and support services, for example, various engineering services.
- **Closely associated indirects:** These are costs that support the operational activities such as network policy (including research and development), health and safety functions.
- **Other indirect costs**: These costs included are cash payments and provision movements relating to quarry and other loss of development claims. Opex resilience costs are also captured in this cost category.

Table 10– Breakdown of NGT's TO cumulative and five-year costs against allowance by indirect opex cost

	Cumulative Years 1-4				RIIO-GT2			
£ million, 2018-19 prices	**Spend**	**Allowance**	**Variance £m**	**Variance %**	**Spend**	**Allowance**	**Variance £m**	**Variance %**
a. Opex – BSC	141	123	18	15%	185	151	(34)	(23%)
b. Opex - CAI	103	101	2	2%	133	121	(12)	(10%)
c. Opex – Other Indirect	78	118	(40)	(34%)	145	171	26	15%
Total (a+b+c)	**323**	**342**	**(20)**	**(6%)**	**463**	**443**	**(21)**	**(5%)**

NGT is forecasting RIIO-GT2 indirect opex cost of £463m against an allowance of £443m. The variance largely relates to higher than planned operational property management costs and increase in IT costs relating to SaaS and cloud-based solution which cannot be capitalised and now treated as operational expenses.

System Operator (SO)

Table 11– Breakdown of NGT's SO five-year forecast costs against allowance by key cost categories

	Cumulative Years 1-4				RIIO-GT2			
£ million, 2018-19 prices	**Spend**	**Allowance**	**Variance £m**	**Variance %**	**Spend**	**Allowance**	**Variance £m**	**Variance %**
a. Capex - Non-operational & Other Capex	92	141	(50)	(35%)	140	168	(28)	(17%)
b. Opex - Direct (Network operating costs)	91	117	(26)	(22%)	115	146	(31)	(21%)
c. Opex - Indirect	119	136	(17)	(12%)	161	174	(13)	(8%)
Total (a+b+c)	**302**	**395**	**(93)**	**(24%)**	**416**	**488**	**(72)**	**(15%)**

SO cumulative 4-year totex cost is £302m which is an underspend of £93m (24%) against an allowance of £395m. The underspend is primarily driven by savings from key IT investments. Year 5 spend is forecast to be £107m c.31% higher than the prior year, driven by increased spend in IT, cyber security and operational costs.

The SO five-year totex cost is estimated to be £416m against an allowance of £488m, an underspend of £72m, which is 15% below the allowance.

This underspend is primarily driven by lower spend on:

- Business support holding vacancies and a reduction in Operational IT & Telecoms costs.
- The Gemini IT programme has generated a lower volume of changes required than originally planned.

Capex Non-operational and Other capex

The RIIO-GT2 forecast cost is £140m against an allowance of £168m, resulting in a variance of £28m. The cumulative Year 1–4 spend is £92m against allowances of £141m. This variance was principally driven by lower spend (c.£18m) from efficient delivery on the Gemini programme i.e. a suite of online applications for managing the transportation of gas through the NTS and used for Capacity Management.

Additional underspend has occurred in IT resilience and forecast and maintained for RIIO-GT2 although NGT plan to ramp up IT resilience investment in Year 5.

Direct Opex – Network Operating Cost (NOCs)

An underspend of £31m is reported across the five years of RIIO-GT2. The cumulative 4-year underspend of £26m driven by high attrition and a challenging recruitment environment. The vacancies were primarily in specialist areas (e.g. Energy Resilience). There are additional savings arising from lower Xoserve (Data Services Provider) costs. The underspend is forecast to continue for the final year of RIIO-GT2.

Opex Indirect

The SO indirect opex underspend is expected to continue through to the end of RIIO-2, with forecast spend of approximately £161m against a total RIIO-GT2 allowance of £174m. The underspend is mainly driven by savings from reduced staff headcount and lower than planned Operational IT & Telecoms costs and Health & Safety costs.

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