national gas transmission

Our performance for 2024/25

Regulatory Reporting Pack (RRP) submission for the fourth year of the RIIO-T2 price control (2021-2026)

Official - For public release

A message from our CEO

Welcome to the penultimate Regulatory Reporting Pack (RRP) submission of the RIIO-T2 price control period (2021-2026)

In this report you will see evidence of how our concerted efforts this year have translated into delivery against our RIIO-T2 commitments, and be able to read more about our performance in 2024/25.

This has been a pivotal year for National Gas, as we completed the operational separation of the company from National Grid. The separation programme, which encompassed the migration of the company's systems, was finished on time and to budget. This milestone represented the symbolic closing of one chapter in the history of the company and the opening of an exciting new one.

At the heart of our work this year has been our relentless pursuit of delivering a safe, secure, and reliable supply of energy to the country, while continuing to play a leading role in unlocking a net zero future.

We have revitalised our capital delivery programme with new energy and determination to fulfil our RIIO-T2 commitments. In 2023/24 we started to show a significant increase in volumes of work delivered and in 2024/25 we delivered a further 37% increase in spend. We have set out an initial view to fund Front-End Engineering Design (FEED) works for the first phase of Project Union in the East Coast (subject to consultation). This decision is an exciting step forward and means that we will be able to begin to deliver, in earnest, on our hydrogen ambitions and prepare our transmission network for the transition to low-carbon energy.

Over the reporting year 2024/25, we have ensured the National Transmission System (NTS) has remained resilient and reliable, achieving 100% reliability in our network. In the summer, our dedicated teams were out in the field undertaking the largest transmission maintenance programme of RIIO-T2. The delivery of this programme made sure we were ready when it came to winter, enabling us to continue to safeguard the country's energy security.

We have achieved all this whilst continuing to be 'safe every day', with our Lost Time Injury Frequency Rate (LTIFR) for 2024/25 being an impressive 0.02. This reflects our firm commitment to never compromise on the safety of our people, our customers, the public, and our assets.

From an external perspective, 2024/25 has brought volatility in the world around us. There have been changes in political administrations at home and abroad, and with the ongoing conflicts in Ukraine and the Middle East geopolitical tensions have remained high. And that is to say nothing of the turbulence we have seen in the global markets. This volatility, coupled with the unprecedented, rapid deployment of intermittent renewables, is placing new and different demands on our system. It is a reminder of how critical the security of our energy supply is, and how integral energy diversity is to energy security. This has been brought into sharp focus by events this year at Heathrow in March and on the Iberian Peninsula in April.

Without doubt, there will be challenges ahead, but I am confident that National Gas is more than up to the task – and look forward to seeing what we can achieve together.

Jon Butterworth
Chief Executive Officer

Our RIIO-GT3 business plan, which we submitted in December 2024, seeks to address the new and different demands placed on our network, while reflecting the vital role National Gas plays – and will continue to play - at the heart of energy security for decades to come. We have set out a stakeholder-led plan that meets the future challenges head on. We are confident that the plan is not only robust and ambitious, but is also deliverable and affordable. We believe our plan will deliver value to our customers, our consumers, and our stakeholders whilst ensuring we continue maintaining security of supply.

Maintaining security of supply and safeguarding the country's energy is a responsibility we take extremely seriously.

From a personal perspective, I am honoured to serve as the Network Emergency Co-ordinator (NEC). I am grateful for the support of the internal expert team and for the collaboration of our partners across the sector in discharging this role and helping to ensure that we are prepared to deal with National Gas Supply Emergency, in the unlikely event it occurs.

From a company perspective, we balance our pursuit of energy security with our determination to be a caring and compassionate organisation, mindful of our societal and environmental obligations.

Over the year, I am proud of the way we have continued to support our local communities, not least through our Tackling Loneliness Initiative.

This programme establishes 'hubs' in communities to address loneliness amongst people who live locally to our sites. The way our staff have engaged with the initiative is an example of the supportive and inclusive culture we have created at National Gas.

A message from our CEO

Looking ahead

We have continued to evolve in the last year, becoming a more modern, agile, delivery-and-performance-focused company. In doing so, we have achieved a great deal, yet there remains much more to accomplish.

In the year ahead, our focus will be on executing delivery of the final year of RIIO-T2, ensuring we close out the price control period strongly. At the same time, we will be working tirelessly to secure a RIIO-GT3 outcome that enables us to maintain, improve and invest in the network to ensure it is resilient and fit for the future. We will be laying the foundations so that we are ready to deliver from the start of the price control period in April 2026.

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national gas transmission

Executive summary and performance

Image: Ambergate National Gas site

Performance on a page

Activity (£m, 18/19 prices)

TO Load Related Capex
2.0
3.8

TO Totex
491.2
505.7

TO Non-Load Related Capex
197.0
221.1

SO Capex
43.9
30.6

TO Non-operational Capex
22.1
25.4

SO Opex
63.5
54.1

TO Other Capex
132.7
116.4

SO Totex
107.4
84.7

TO Opex
137.4
139.0

Total
598.6
590.4

Key
FY25 Allowance
FY25 Totex Spend

£590.4

We have spent £590.4m compared to allowances of £598.6m

0.02

We have maintained our Lost Time Industry Frequency Rate (LTIFR) which is 0.02 (per 100,000 hours).

100%

We have maintained 100% reliability on our network

4

Four new Gas Compressor units have been added to Peterborough and Huntingdon to comply with the Medium Combustion Plant (MCP) Regulations.

37%

We delivered a 37% increase on 2023/24 spend, in areas such as Asset Health (+£40m), Compressor IEDs (+£10m), Methane Emissions Reduction Campaign (MERC) (+£3m), T3 preparatory work (+£4.4m) and East Coast Hydrogen (£2.4m).

Performance overview

Incentive performance

We have been able to build on the good performance achieved in the previous year against the challenging deliverables outlined in our three consumer priority areas, and we are on track to deliver the majority of our RIIO-T2 commitment.

National Gas met all of its commitments for **Meet the needs of consumers and network users (page 28)**. Our customer and stakeholder satisfaction survey results have maintained strong scores this year. We've also achieved strong results across our system operator (SO) incentive areas including Demand Forecasting, Maintenance, Capacity Constraint Management (CCM), and Residual Balancing, by continuously seeking performance improvements and successfully meeting all our incentive scheme targets.

We have made good progress against our outputs related to **Maintain a safe and resilient network (page 41)**. We have successfully delivered an increase in non-lead asset interventions (such as fences, gates, roads, pathways, and pipe supports), for example Structural Integrity assets, 525 PCD, non-lead Civils volumes have been delivered and claimed in 2024/25. This is an increase from 443 volumes delivered in 2023/24. We have also submitted re-openers to address Bacton Terminal site redevelopment. There remain some challenges with our cyber operational technology (OT) and information technology (IT), where some works have been delayed to next year due to the complex nature of the required works and the ability to complete the works in permitted outage windows.

We have made positive steps in progressing the deliverables that contribute to **Deliver an environmentally sustainable network (page 48)**. We continued to perform well against our Greenhouse Gas incentive, venting 2,018 tonnes of emissions against a target of 2,897 tonnes. We have also decreased our business mileage by 9% from 850 tCO_2e (tonnes of CO_2 equivalents) in 2023/24 to 776 tCO_2e in 2024/25, with an overall drop of 52% against our baseline target of 1608 tCO2e set at the start of RIIO-T2. We have experienced some challenges delivering our redundant asset commitments due to the needs case changing and/or restrictions on the network.

Innovation

This year we have continued to focus on innovation, with particular emphasis on projects that can facilitate the UK target of net zero by 2050. Whilst the transition of the energy system is an immediate focus, we must ensure our transitioned network is optimised to deliver energy at the lowest cost and with the highest levels of safety. This year we approved 40 new Network Innovation Allowance projects, such as testing multiple gas detection systems for hydrogen and methane, bringing the RIIO-T2 total number of projects to 120. Of the 120, 36 moved into delivery this year, with 70 projects now completed throughout the RIIO-T2 period. Looking forward, National Gas is in a unique position to take a leading role in whole system energy thinking. We have exciting opportunities to lead us towards net zero – one of which is our SCO^2T Connect project. Our feeders have been identified as the best choice for onshore CO_2 transportation in Scotland. We are now exploring how pipeline infrastructure can deliver the connectivity between CO_2 emitters across the central belt of Scotland and storage sites. You can read more about our innovation progress on page 59.

Customer bill impact

In 2024/25 the portion of the consumer bill attributable to National Gas Transmission is approximately £7.95. This is a decrease compared to 2023/24, where the National Gas Transmission portion of the domestic consumer gas bill was estimated to be £9.52. This decrease was primarily driven by significantly lower General Non-Transmission revenue, in the previous year there was a catch-up of system costs (shrinkage) incurred in 2022/23 but not recovered until 2023/24. There was a small increase in transmission service revenue due to inflationary impact and annual demand, but this has been offset by a decrease in non-transmission services revenue. There was also reduction of exit flows in 2024/25 which increases the consumer bill estimate[1], (Average Typical Domestic Consumption Values remained the same (as published by Ofgem).

Our consumer bill calculation aims to quantify the financial impact on consumers for the work we do in maintaining and operating the National Transmission System (NTS). We apply Ofgem's methodology for calculating the components of a domestic consumer's bill; there are inherently a number of assumptions used. Approximately 50% of gas transmission charges are recovered via entry charges and classified by Ofgem as costs entering the wholesale market prices. These costs we exclude as not being directly attributable to the consumer. The exit costs, which include the 'direct' domestic sector consumption, are allocated to gas transmission network costs.

[1] We divide the exit revenue by the exit flows to get a cost per kWh (which is then multiplied by Ofgem's estimated consumer demand value). If the exit flows are lower then we end up with a high cost per kWh (as the dividing number is smaller).

Financial performance

Image: St Fergus gas terminal

Summary of spend and allowances

In 2024/25 our totex spend was £590.4m compared to allowances of £598.6m. Over the five-year RIIO-T2 period, totex is forecast to be broadly in line with allowances at £2.7bn.

Table 1 (Totex Summary) summarises spend and allowances (baseline and uncertainty mechanisms) for 2024/25 and for the five-year RIIO-T2 period.

The table and commentary in this section reference allowances that include Real Price Effects (RPE), whereas commentary provided for each individual category of spend in the remainder of this document excludes the impact of RPE.

Totex forecast and allowances include spend for uncertainty mechanisms. During 2024/25 Ofgem directed revisions to allowances on Cyber Resilience OT and IT Baseline and uncertainty mechanism (UM) spend. The updates have re-profiled allowances and increased values by around £39m. We also received a direction for a Physical Security Resilience UM for £21.4m.

Revisions to our Asset Health re-openers have also been made and our UM is now set at £162.9m.

Spend and allowances for Western Gas Network Upgrade (WGNU) have been removed since our submission last year following the receipt of a formal termination notice from the relevant customer in July 2024 (spend to date of c.£28m). The majority of spend (c.£17m) is expected to be recovered under conditions included in the customer contract, the remainder (c.£11m) and the return of allowances previously collected was adjusted via the PCFM (Price control financial model) submitted in December 2024. A replacement project (Western Import Resilience Project - WIRP) is included in NGT's RIIO-GT3 business plan.

RRP table 8.10 includes a list of all other re-openers we are expecting to submit, which if successful marginally increases the total totex spend and allowances over the RIIO-T2 period to £2.7bn (as presented at the top of RRP table 3.4).

This is c.£500m lower than the £3.2bn quoted last year and partly relates to the slippage of Other Hydrogen Infrastructure Projects (£240m) and Project Union FEEDs 2 & 3 (£160m) into RIIO-GT3. In addition to this, decisions on re-openers such as Asset Health (£170m), Cyber (TO £46m, SO £27m) and [redacted] (£37m) have been made and are now included within the main forecast. Further information can be found in RRP table 8.10.

Spend area	2024/25			5 year		
	Totex spend (£m, 18/19 prices)	Allowance (£m, 18/19 prices)	Cost vs allowance (£m, 18/19 prices)	Totex forecast (£m, 18/19 prices)	Allowance (£m, 18/19 prices)	Cost vs allowance (£m, 18/19 prices)
TO Load Related Capex	3.8	2.0	1.8	17.8	11.1	6.7
TO Non-Load Related Capex	221.1	197.0	24.1	1007.0	958.0	49.0
TO Non-operational Capex	25.4	22.1	3.3	120.8	122.6	(1.8)
TO Other Capex	116.4	132.7	(16.3)	461.6	458.9	2.7
TO Opex	139.0	137.4	1.6	657.0	646.2	10.8
TO Totex	**505.7**	**491.2**	**14.5**	**2264.2**	**2196.8**	**67.4**
SO Capex	30.6	43.9	(13.3)	139.9	167.6	(27.7)
SO Opex	54.1	63.5	(9.4)	276.4	320.4	(44.0)
SO Totex	**84.7**	**107.4**	**(22.7)**	**416.3**	**488.0**	**(71.7)**
Total	**590.4**	**598.6**	**(8.2)**	**2680.5**	**2684.8**	**(4.3)**

Table 1 - Totex summary

Transmission operator (TO) total expenditure (totex) overview

TO capital expenditure (capex) for 2024/25 was £366.7m against total allowances of £353.8m. Capex for the five-year period is forecast to be £1,607.2m against allowances of £1,550.6m.

Load related capex was £3.8m against allowances of £2.0m in 2024/25. This relates to further RIIO-T1 spend on Felindre £0.2m, higher spend on network capability £0.7m, and 'use it or lose it' (UIOLI) £1.0m. Cumulative spend totals £15.3m compared to allowances of £9.4m. There has been £6.2m incurred on Entry RIIO-T1 carryover works in RIIO-T2 (largely Felindre at £5.6m) and accounts for the majority of forecast overspend versus allowances across RIIO-T2.

Non-load related capital expenditure was £221.1m, £24.1m higher than allowances of £197.0m. Cumulative spend is £658.3m, £57.2m lower than allowances. In the first three years of RIIO-T2 we experienced slower than expected progress across many of our non-load related capex deliverables. This was mainly due to a national skilled labour shortage as well as the aftermath of Covid-19 and the Russia/Ukraine conflict which caused procurement challenges and difficult operational conditions. In 2023/24 we started to show a significant increase in volumes of work.

In 2024/25, we delivered a further 37% increase on 2023/24 spend, in areas such as Asset Health (+ £40m), Compressor IEDs (Industrial Emissions Directive)(+£10m), Methane Emissions Reduction Campaign (MERC) (+£3m), RIIO-GT3 preparatory work (+£4.4m) and East Coast Hydrogen (+£2.4m). Our 2024/25 spend of £221.1m was notably £63m higher than our RRP24 in year forecast for 2024/25 (£158.3m) moving delivery profile towards the higher levels of investment required in 2025/26 and RIIO-GT3. A further £3m has been incurred on RIIO-T1 carr over non-load related projects in 2024/25 (cumulative £86.4m).

Our forecast RIIO-T2 spend on non-load related capex as presented in the RRP tables is £49m higher than allowances. This largely relates to RIIO-T1 carryover works of £86.4m, primarily on [redacted] compressor works. This is partly offset by Asset Health spend which is expected to be c.£61m lower than allowances. Notably, we are planning to spend c.£25m on RIIO-GT3 preparatory work (£4.4m in 2024/25, the remainder in 2025/26).

During 2024/25 we have identified areas where we are expecting work to be delayed into 2026/27. This is impacting areas such as Decommissioning (£11.9m delay – page 58), MERC (£6.9m) and GRAID (Gas Robotic Agile Inspection Device) (£8.2m - page 97) following our fault detection work last year.

We also recently received an Ofgem draft determination on our East Coast hydrogen proposal. Ofgem proposed a minded to position of efficient project costs of £40.7m[2] with a 10% NGT contribution of £4.1m. and a £6.4m totex incentive mechanism (TIM) adjustment (outside of RRP tables). We are also assuming 50% of this relates to RIIO-T2 and 50% RIIO-GT3. Our underlying negative RIIO-T2 performance is therefore forecast at £2m (50% of the £4.1m contribution). We have spent £2.4m on this project in 2024/25, with £18m forecast in 2025/26, the rest in RIIO-GT3.

After adjusting for RIIO-GT3 preparatory spend, RIIO-T2 work delayed into RIIO-GT3 and the treatment of East Coast Hydrogen, our RIIO-T2 underlying non load related capex is £48m above allowances (for a summary of underlying cost versus allowance please see the table below).

Spend area (£m)	5 year totex forecast	5 year totex allowance	5 year cost vs allowance	Spend in RIIO-T2 for RIIO-GT3 work	RIIO-T2 spend delayed into RIIO-GT3	Directly recovered in TIM	underlying 5 year cost vs allowance
Emissions (Including Hatton)	212.2	195.5	16.6				16.6
Asset Health Baseline	395.5	456.7	-61.1				-61.1
Asset health UM	162.9	162.9	0				0
Asset health RIIO-GT3 spend	24.8	0	24.8	-24.8			0
Decommissioning	62.9	77.4	-14.5		11.9		-2.6
P&H T1 carry over	86.4	0	86.4				86.4
MERC UM	12.6	19.4	-6.9		6.9		0
East Coast Hydrogen	20.4	15.1	5.2			-3.2	2
DSEAR	4.1	0	4.1				4.1
GRAID	8.1	16.3	-8.2		8.2		0
Other (including stopples)	17.3	14.6	2.7				2.7
Total NLR Capex	**1007**	**958**	**49**	**-24.8**	**27**	**-3.2**	**48**

Table 2 - TO NLR Detail

[2] On 20 June 2025 Ofgem issued a Final Determination which increased approved funding from £30.3m to £32.2m, these updated values have not been reflected in the RRP tables

TO totex overview continued

Non-operational capex spend was £25.4m in 2024/25, £3.3m below allowances. Cumulative spend is £86.2m, £15.6m below allowances. We expect to be largely in line with allowances at the end of RIIO-T2, with the underlying IT programme c.£16m lower primarily driven by the impact of Software-as-a-System (SaaS) spend now expensed under International Financial Reporting Standards (IFRS) accounting rules as opex. This is largely offset by c.£15m of spend on IT RIIO-GT3 preparation activities (£1m in 2024/25) planned for the final months of RIIO-T2.

TO other capex expenditure was £116.4m, £16.2m below allowances. During 2024/25 Ofgem directed revisions to allowances on Cyber Resilience OT and IT Baseline and UM spend. The updates have re-profiled allowances between; years, capex and opex, TO/SO and Baseline/Non-Baseline (UM) and increased values by around £39m. We also received a direction for a Physical Security Resilience UM for £21.4m.

Whilst the underspend against allowances largely relates to cyber OT (£21.4m), there has been a material increase (£31m) in spend in this area vs 2023/24. Delivery of control system replacement projects is complex and difficulties in delivery within outage windows in prior years has led to a re-evaluation of both the delivery schedule and costs in the remainder of RIIO-T2. The increase in spend vs 2023/24 has been driven by accelerated compensating controls programmes, which has allowed NGT to maintain maturity. This is partly offset by an overspend in Physical Security Resilience of £5.7m. RIIO-T2 forecast spend of £461.6m is £2.7m higher than allowances, primarily reflecting spend carried over from RIIO-T1.

TO opex costs in 2024/25 were £139.0m against allowances of £137.4m. Direct opex costs was

£7.4m lower than allowances, driven by £9.2m lower maintenance costs as linewalking and close interval potential (CIP) surveys returned to normal levels compared to the previous year. The Dangerous Substances and Explosive Atmosphere Regulations (DSEAR) fault detection project has concluded and the focus has now shifted to remediating these (costs of which can be seen in capex). This is partly offset by higher Operational Property costs (£2.6m higher than allowances) driven by refurbishment of sites. TO Indirect costs were higher than allowances in 2024/25, the majority of the overspend relating to IT primarily due to reclassifications of SaaS expenditure from non-operational capex. TO opex is expected to be £10.8m more than allowances across the RIIO-T2 period, primarily reflecting the ongoing impact of DSEAR and SaaS.

Return on Regulated Equity (RoRE)

The RoRE figure will be provided as part of Regulatory Finance Performance Reporting (RFPR) in September 2025.

Allowed revenues TO and SO

Allowed revenues for TO and SO will be provided as part of the Price Control Financial Model (PCFM) in September 2025.

System operator (SO) total expenditure (totex) overview

SO capital expenditure in 2024/25 was £30.6m, £13.3m lower than allowances (cumulative spend of £91.6m versus allowances of £141.3m). This was primarily driven by IT capex, partly due to SaaS cost reclassifications but also due to realised savings on the Gemini programme. We expect SO capital expenditure to be £27.7m below allowances by the end of RIIO-T2, largely reflecting SaaS and Gemini.

SO Opex costs were £54.1m in 2024/25, £9.4m lower than allowances. Direct Opex costs were lower than allowances, primarily due to net staff cost savings partly due to ongoing vacancies, driven by comparatively high attrition and a challenging recruitment environment, combined with lower Xoserve costs. SO Indirect costs were broadly in line with allowances. SO Opex is expected to be £44.0m lower than allowances across the RIIO-T2 period, reflecting the ongoing impact of vacancies and lower Gemini running costs.

Please see the table below for a view of RIIO-T2 underlying totex spend and allowances, after adjusting for RIIO-GT3 preparatory spend, delayed RIIO-T2 work, and the treatment of East Coast Hydrogen

	Spend area (£m)	5 year totex forecast	5 year totex allowance	5 year cost vs allowance	Spend in RIIO-T2 for RIIO-GT3 work	RIIO-T2 spend delayed into RIIO-G T3	Directly recovered in TIM	Underlying 5 year cost vs allowance
TO costs	Load related capex	17.8	11.1	6.7				6.7
	Non load related capex	1,007.0	958.0	49.0	(24.8)	27.0	(3.2)	48.0
	Non-operational capex	120.8	122.6	(1.8)	(15.0)			(16.8)
	Other capex	461.6	458.9	2.7				2.7
	Capex	1,607.2	1,550.6	56.6	(39.8)	27.0	(3.2)	40.6
	Opex	657.0	646.2	10.8				10.8
	Totex	2,264.2	2,196.8	67.4	(39.8)	27.0	(3.2)	51.4
SO costs	Capex	139.9	167.6	(27.7)	(6.3)			(34.0)
	Opex	276.4	320.4	(44.0)				(44.0)
	Totex	416.3	488.0	(71.7)	(6.3)	0.0	0.0	(78.0)
	Total totex	**2,680.5**	**2,684.8**	**(4.3)**	**(46.1)**	**27.0**	**(3.2)**	**(26.6)**

Table 3 - Summary of Totex underlying 5-year forecast spend and allowances

Operational context

Image: St Fergus gas terminal

Operational context

As the sole owner and operator of the Gas Transmission Network in Great Britain, we manage the day-to-day operation of the NTS including the residual balancing of the network, maintaining system pressures, and assuring gas quality.

Throughout 2024/25, the UK NTS adapted to significant shifts in supply and demand dynamics, driven by ongoing geopolitical and market developments. The reduction in Russian gas supplies in previous years has fundamentally altered GB and European energy markets, positioning GB as a key supplier to the Continent through LNG imports and interconnectors.

United Kingdom Continental Shelf (UKCS) supplies remained a major contributor to GB supplies providing 35% of supplies and Norwegian imports providing 42% of supplies, with LNG, Storage, IUK and BBL European interconnectors supplying the remaining 23%.

The trends observed from summer 2023 continued into 2024/25, with a continued decline in LNG gas imports and subsequent GB gas exports to Europe due to improved European storage levels and the commissioning of new EU infrastructure projects.

Despite these lower export flows, the winter still saw LNG being utilised particularly at [redacted] which continues to demonstrate the flexibility required to manage changing/different supply and demand patterns on the NTS. The interconnector exports reduced by over 2 bcm between 2023/24 and 2024/25 which coincided with fewer LNG cargos in the summer period and therefore lower levels of LNG entering GB, reflecting a change in supply sources.

Interestingly, we saw an increase of almost 0.6 bcm in European gas imports to GB for the first time in recent years, signalling evolving market behaviours.

We saw an increase in Local Distribution Zone (LDZ) demand of approximately 2.04 bcm from 2023/24, this was driven by two main factors; colder weather and changing customer behaviour linked to changing gas prices.

We also saw storage injections increase by 0.51 bcm from 2023/24 suggesting a market preference for cycling storage, injecting during warmer low demand periods in anticipation of higher demand and higher priced periods.

Despite an overall reduction for gas demand for power generation of 1.21 bcm from 2023/24, we did see an increase in the peak daily power generation, with a high of 107.4 mcm on the 12 Dec 24 indicating that gas demand for power generation remains critical in enabling the generation of electricity, particularly during periods of low renewable output.

The reduction in both LNG and UKCS supplies resulted in less overall compressor running hours required for the operation of the network, this was specifically driven by lower summer supply and demand. As such, overall compressor use reduced by approximately 6,087 hours. It is worth noting that there were higher LNG supplies in the winter period, compared to 2023/24, which increased the compressor run hours associated to moving [redacted] supplies to the demand centres.

The operational flexibility of the NTS continues to be important to our customers as gas flows fluctuate in response to market conditions, weather patterns, and infrastructure developments. National Gas remains focused on ensuring asset availability and adaptability and maintaining a resilient and responsive network to meet evolving customer requirements.

Throughout 2022/23 and the early part of 2023/24 the war in Ukraine had a significant impact on the operation of the NTS. Large quantities of LNG entered the network to facilitate high levels of export to mainland Europe via the [redacted] interconnectors. In 2023/24 we saw a reduction in export flows from June 2023 onwards and this trend continued throughout 2024/25.

Operational context continued

Figure 1 – Interconnector Exports (Demand) highlights overall the year-on-year decrease of interconnector exports to mainland Europe since the first year of the war in Ukraine, which is a return to pre 2022/23 levels. Exports via the [redacted] interconnector to Northern Ireland/ Ireland increased for the 2024/25 period. Whilst Figure 1 shows that on an annualised basis there has been an overall decrease in exports to Europe, there has been an increase in exports through the [redacted] interconnector which is likely due to a reduction in [redacted] supply and higher demand from [redacted] Power Station.

Focusing on continental Europe, despite the overall reduction in total exports, there were still periods of high export levels as can be seen in **Figure 2** over leaf. Between May 2024 and July 2024, the NTS regularly exported approximately 30 mcm/d, rising towards 50 mcm/d in July and reaching above 50mcm/d during August. The baseline capacity we are obliged to make available for European exports to mainland Europe is 60 mcm/d, meaning in August 2024 shippers utilised off-peak capacity to accommodate increased exports to Europe as flows were greater than 60 mcm/d.

Figure 1: Interconnector Exports (Demand)

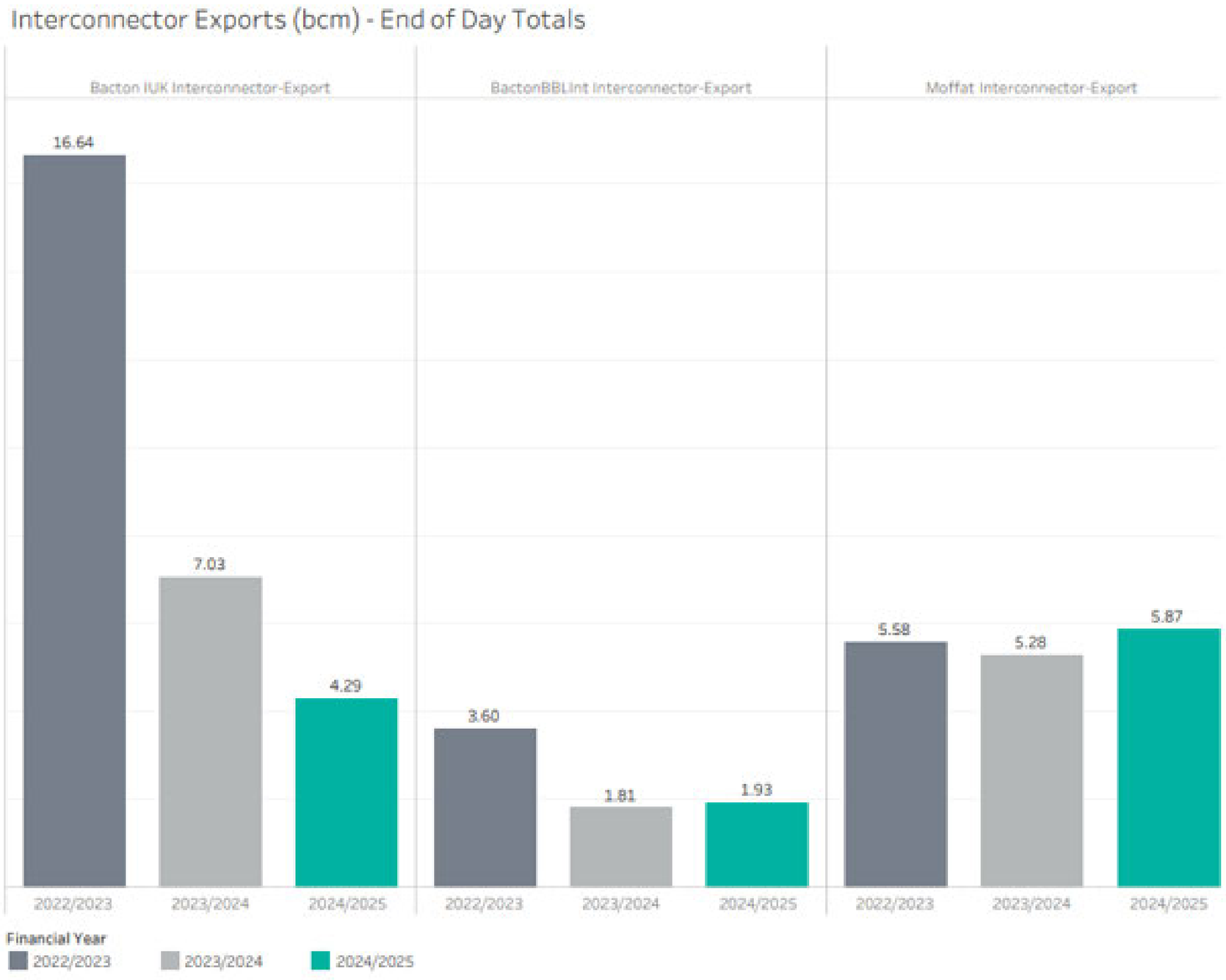


Figure 2: Interconnector exports (demand)

Figure 2 – Interconnector exports show that exports fluctuated throughout the year, with particular variability seen during the summer months.

Wide variation was seen between September and October, where continental exports ranged from approximately 5 to 45 mcm/d, this fluctuation continues to highlight the requirement for operational flexibility across the NTS, enabling customers to respond to Market drivers to ensure gas can be supplied and offtaken when and where our customers require it. During winter 2024 there were minimal exports to continental Europe and as already stated there was an increase in European imports.

Average summer demand in 2024/25 was lower than the previous year, with a much lower peak, which was likely caused during the first few months of summer 2023/24 where the higher levels of export to Europe continued.

Operational context continued

Comparing the winters of 2024/25 and 2023/24, we saw a slightly higher maximum demand (393 mcm vs 388 mcm) and, on average a higher network demand, as highlighted in **Figure 3** - Minimum, maximum, and average End-of-day volumes (mcm/day.

The increase in average winter demand was primarily driven by an overall increase in LDZ consumption, which saw an uplift of approximately 2 bcm (5.1%). Additionally, as previously mentioned Moffat demand saw an increase of 11.2%, while Storage injection volumes also rose by 11.2%, as detailed in **Figure 4**: Demand breakdown on the next page.

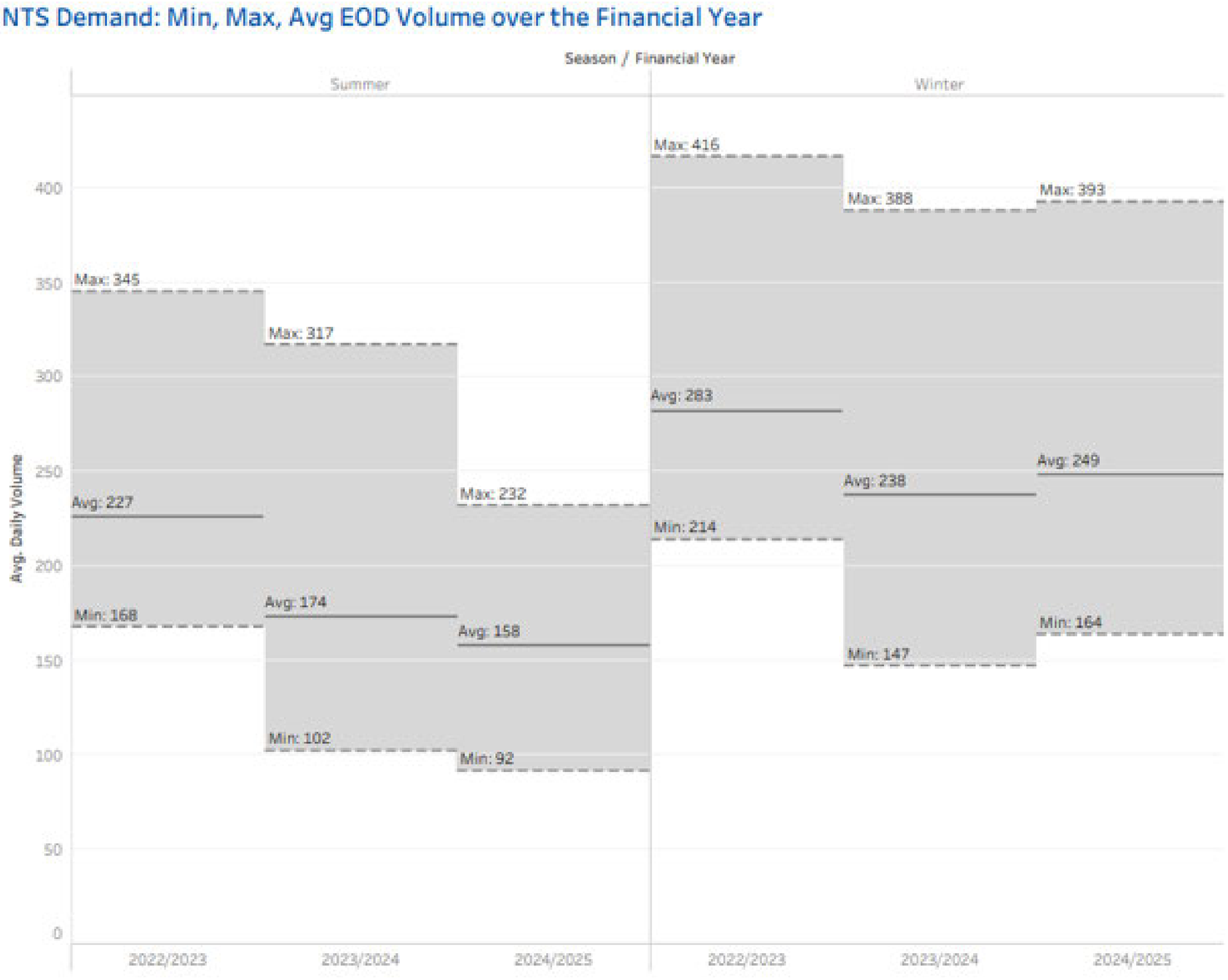


Figure 3: Minimum, maximum and average end-of-day volumes (mcm/day)

Figure 4: Demand breakdown (bcm)

Operational context continued

Although annual gas for power usage declined overall, winter usage increased in comparison to 2023/24 as shown in: Operational Context **Figure 5**: Power stations min, max, avg EOD over financial year (mcm/day).

This increase in total LDZ offtake demand is likely to be partly due to a slight reduction in the energy saving measures by consumers which was seen throughout 2022/23 and 2023/24 at the height of the energy crisis. We believe this was influenced by lower gas prices and colder weather

compared to the previous year which contributed to higher LDZ demand.

In addition, an increase in storage injection indicates that, cycling storage throughout the winter period was preferred by the market, where sites would be injecting in the warmer, lower demand periods in preparation for expected future colder periods where the gas price would likely be higher.

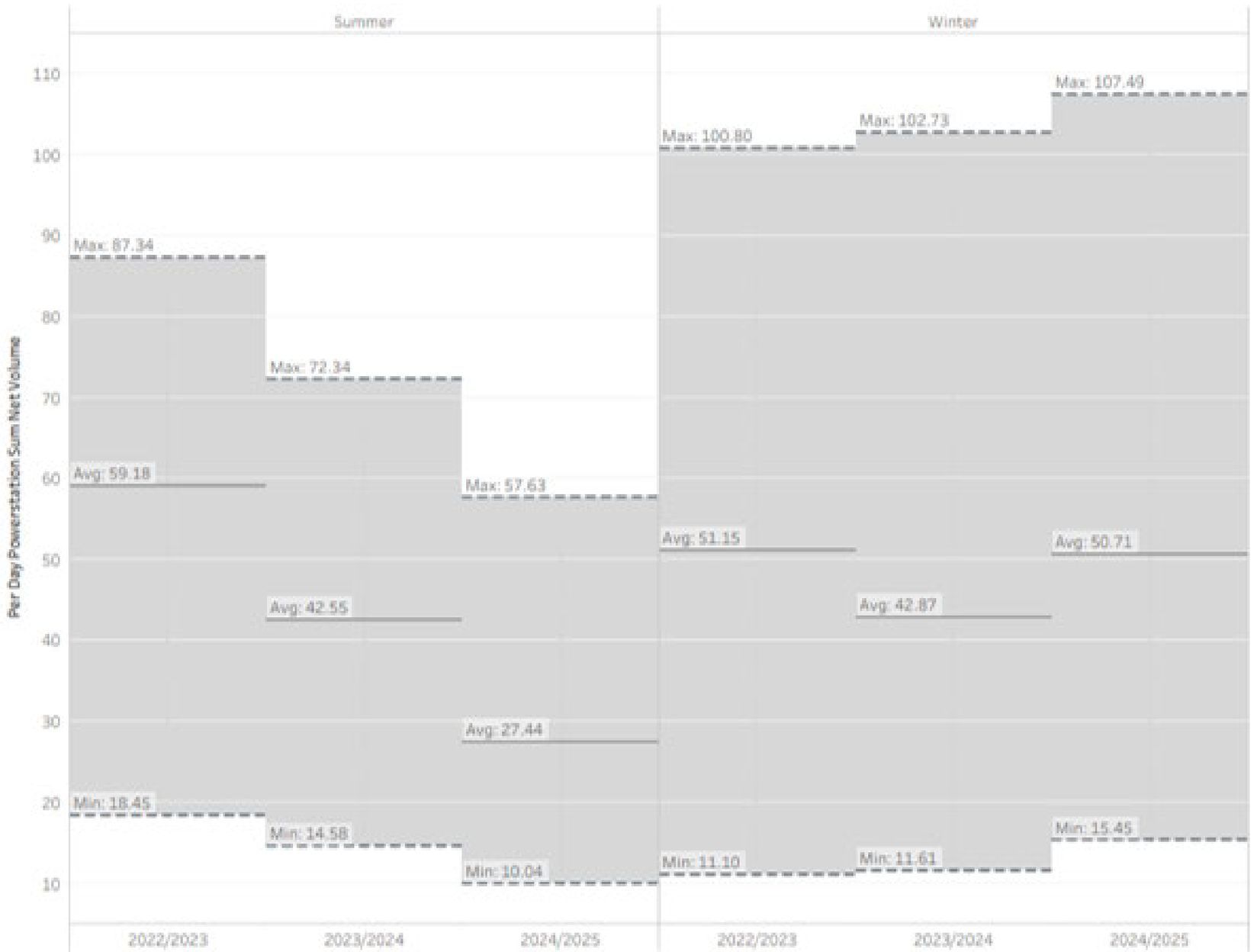


Figure 5: Power stations min, max, avg EOD over financial year (mcm/day)

Operational context continued

As shown in **Figure 6**: "Injection/Withdrawal in winter", medium range storage sites such as [redacted] recorded a broadly similar number of injection and withdrawal days during the winter period, further highlighting the storage cycling behaviour previously detailed above. a long-range storage site, primarily withdrew gas throughout the winter, which aligns with typical operational behaviour of the storage site, where [redacted] (gas storage facility) generally injects during the summer to then withdraw during the higher demand periods.

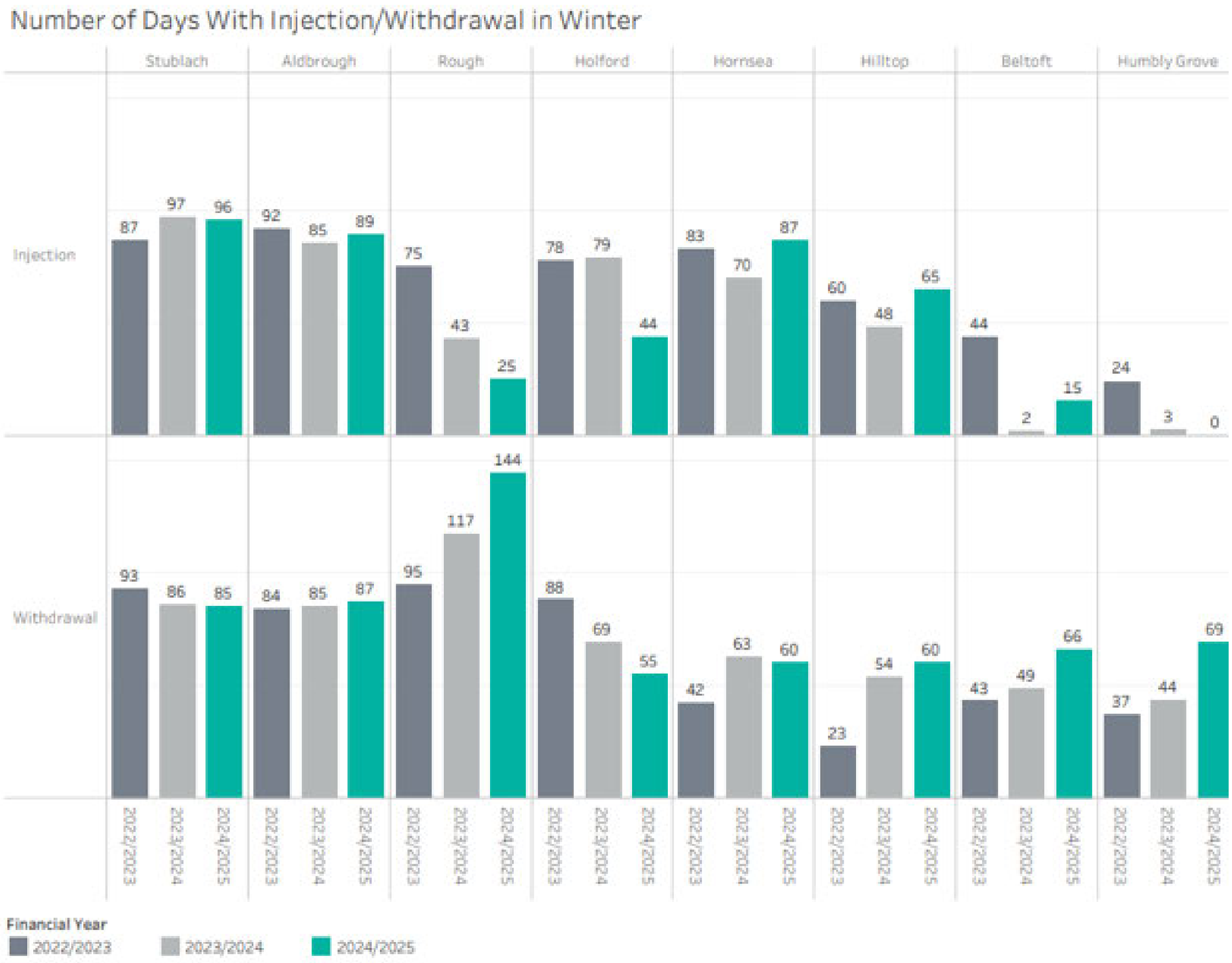


Figure 6: Injection/withdrawal in winter

Operational context continued

Analysis of overall demand shows two distinct periods of higher demand in December 2024 and January 2025. In early December 2024 demands reached 350 mcm/d followed by the winter peak of 393mcm/d on 10 Jan 2025, as detailed in **Figure 7** – Overall NTS Demand.

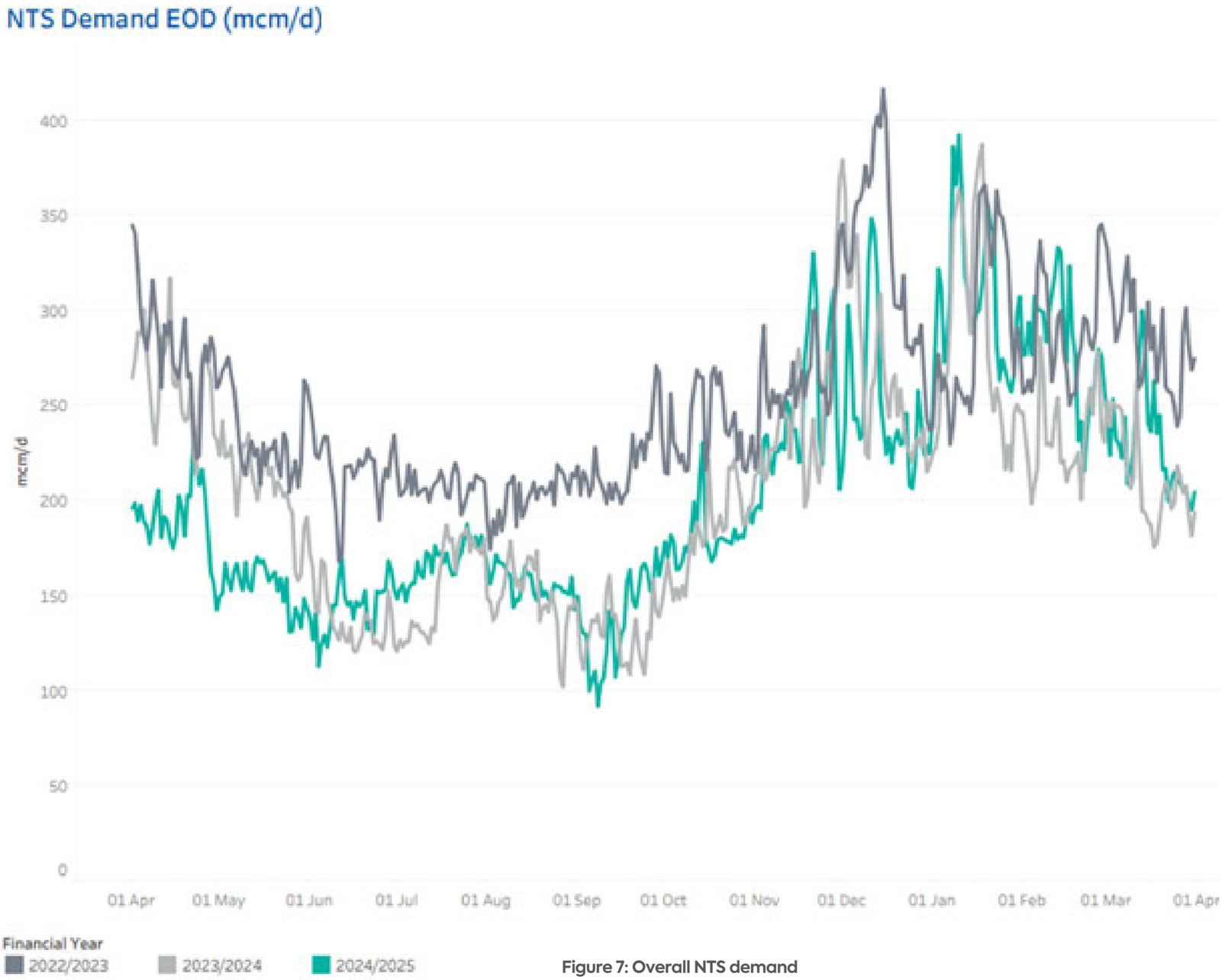
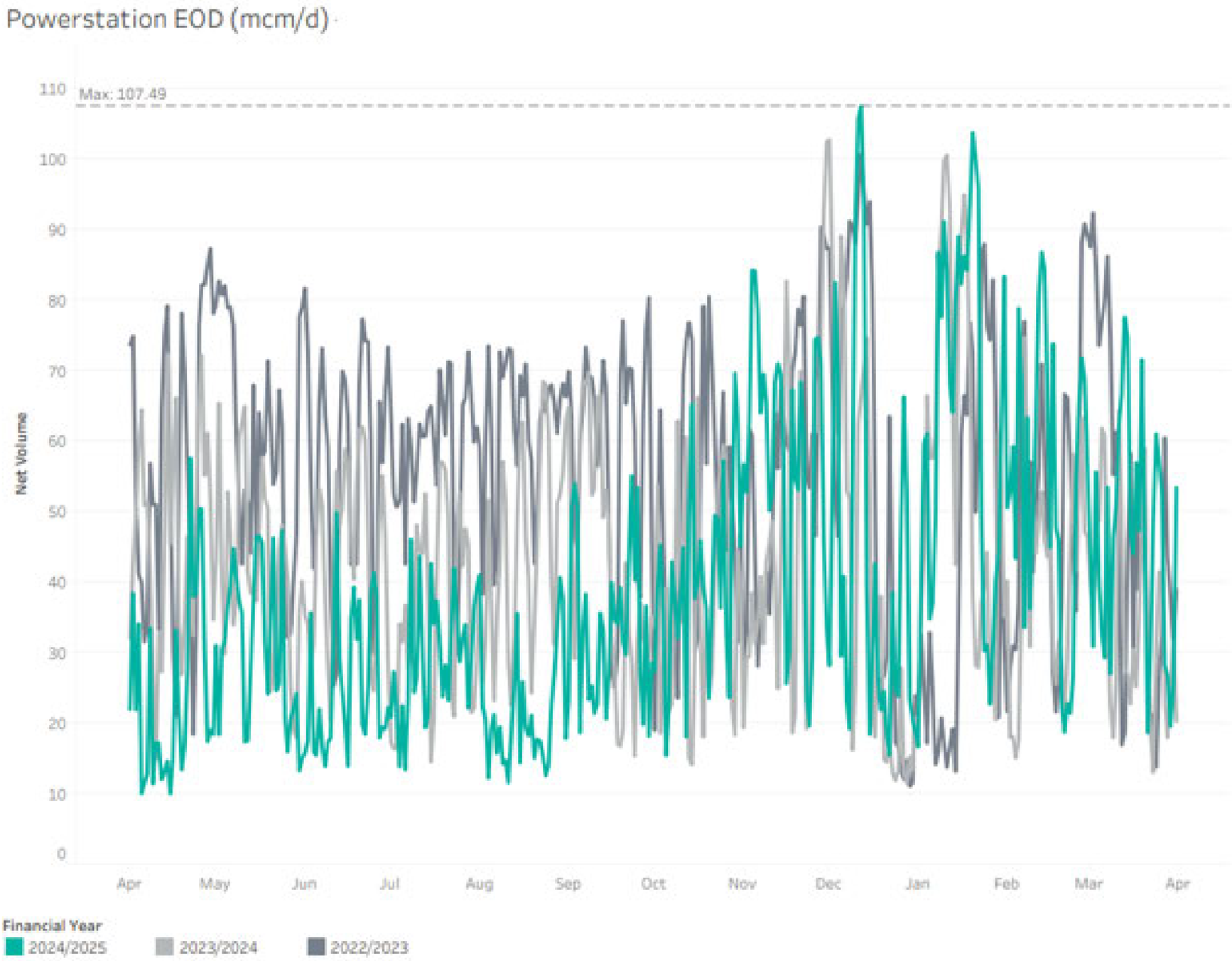


Figure 7: Overall NTS demand

Operational context continued

During the first period of increased demand in early December, LDZ demand was close to average, however, it was gas for power that drove up the increased level. On 12 Dec 24 the NTS recorded a peak Power Station demand of 107.4 mcm/d, as highlighted in **Figure 8** (below) - Power Station Demand.

Figure 8: Power station demand



Operational context continued

Over the past three years, the average gas demand for power generation has declined as more renewable energy sources have been integrated into the electricity network, peak gas power demand and the range between minimum and maximum has increased as highlighted in **Figure 9** - Overall, minimum, maximum, average and EOD power station demand. This reducing average but increasing maximum and increasing maximum to minimum range has been a trend over the last two to three years.

This peak of gas for power demand was driven by the weather patterns over the UK, specifically a "dunkelflaut[3]", where both wind and solar generation were low. **This highlights the importance of gas as a backup generation source when renewable energies are unable to be utilised.**

Figure 9: Overall minimum, maximum, average and EOD power station demand

[3] a period of time in which little or no energy can be generated with wind and solar power, because there is neither wind nor sunlight.

Operational context continued

For the second demand peak in January 25, Gas for power was still high, but LDZ demand played a much more significant part in the overall demand figure, as shown in **Figure 10** – LDZ EOD demand.

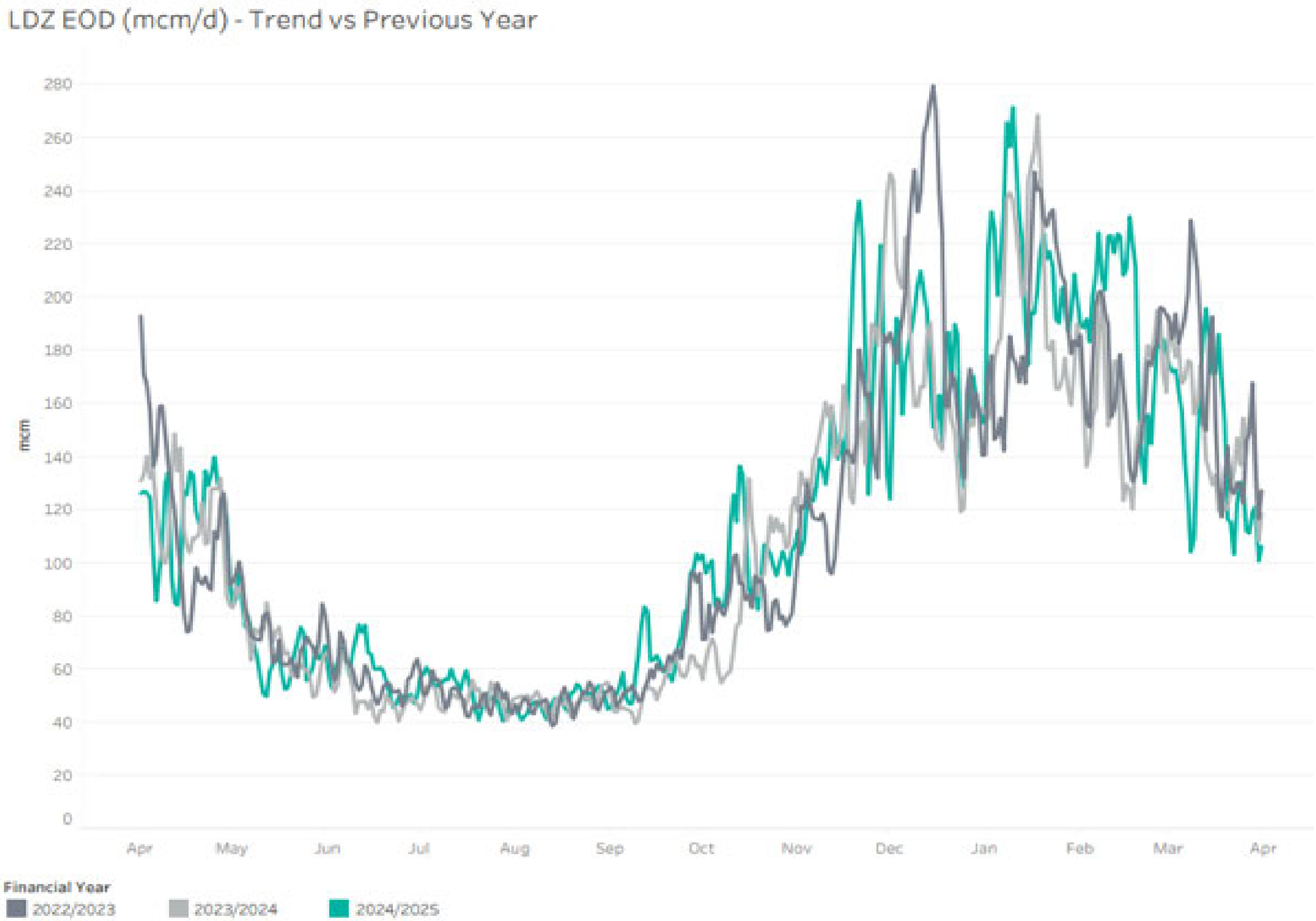


Figure 10: LDZ EOD demand

Operational context continued

Throughout the year, demand was met through a combination of UK Continental Shelf (UKCS), Norwegian imports, LNG, Storage withdrawal and Interconnector Imports. While UKCS was the largest supply source in both 2022/23 and 2023/24 this shifted in 2024/25 with Norwegian supplies surpassing UKCS by 5.8 bcm, as shown in **Figure 11 –** Supply by Type.

During the last winter period we've also began to see a slight return in European imports to GB, with 0.6 bcm delivered to the GB market, which had been close to zero over the previous two years.

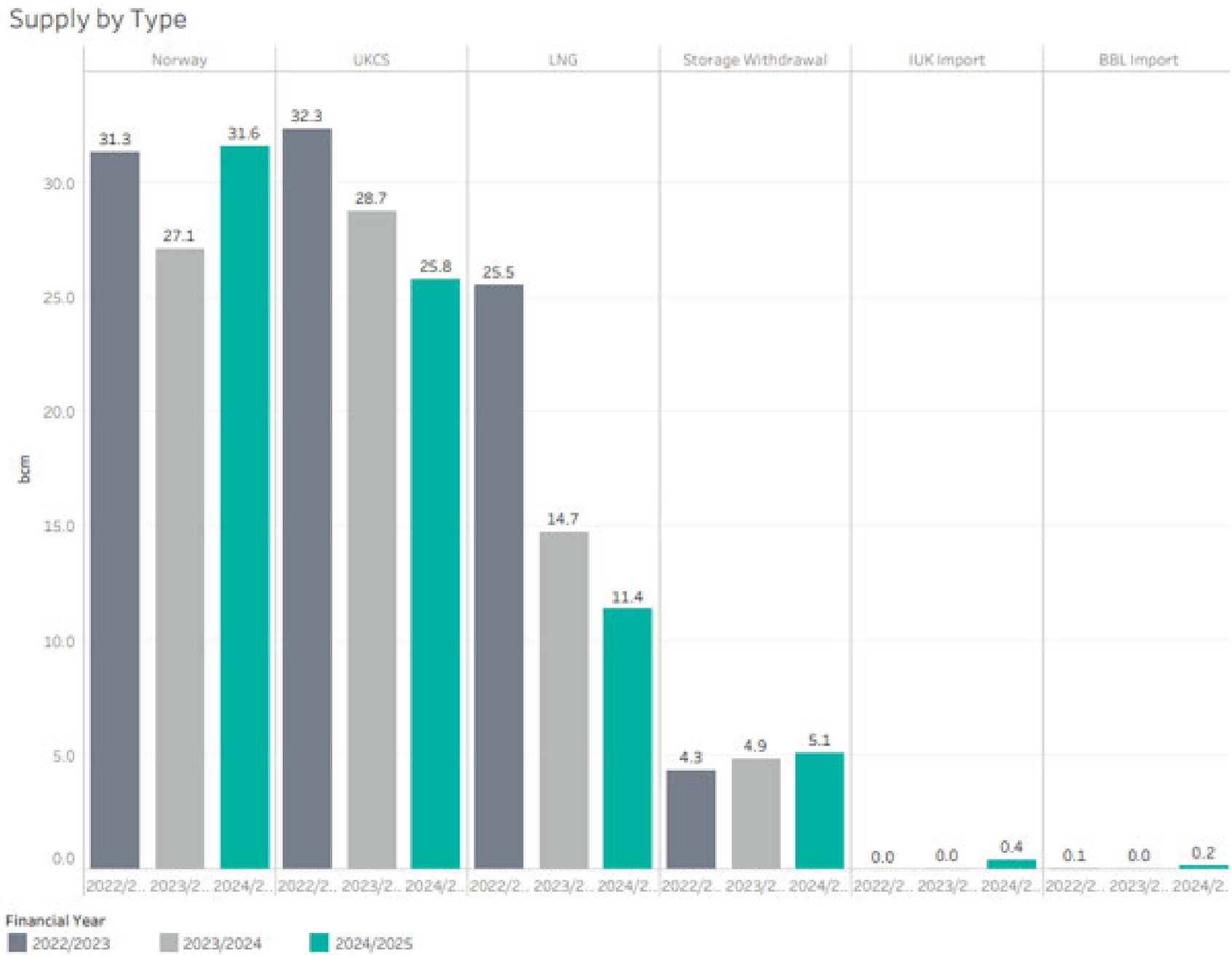


Figure 11: Supply by type

Operational context continued

As previously mentioned, the reduction in interconnector exports during summer 2024 coincided with a decline in LNG supply, with 3.3 bcm less LNG entering the network in 2024/25. Although LNG deliveries remained low for much of the year, the period of elevated demand over winter was supported by an increase in LNG imports as shown in **Figure 12** – LNG Supply.

This continues to highlight the flexibility the NTS and the GB market has, due to the highly diverse range of supply sources.

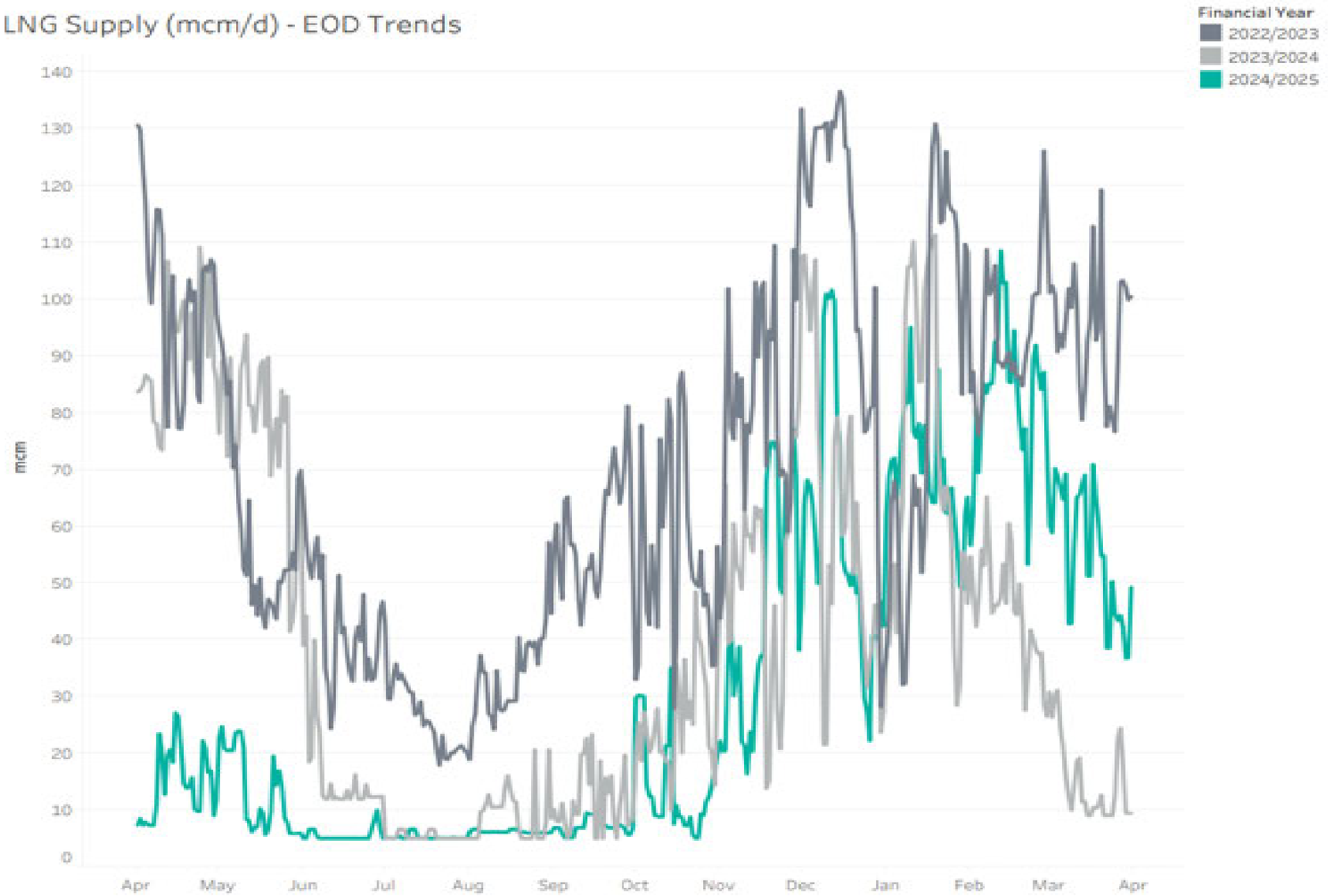


Figure 12: LNG Supply

Operational context continued

For clarity, **Figure 13** Total compressor run hours details the cumulative compressor running hours. The increase shown is not linear, as compression operation is adjusted to meet changing supply and demand conditions. This flexibility ensures the network can continue to meet the needs of our customers efficiently.

Compression is used to transport the gas from the higher supply and lower demand regions, typically in the North, to the higher demand centres in the south. In 2024/25, the use of this compression decreased in line with reduced supply from [redacted] with very little compressor utilisation being required in the summer period to move supplies to the demand centres, before picking up in the colder months.

The reduction in overall LNG supplies resulted in less compression usage to move gas from the [redacted] terminal in the earlier part of the year. Throughout winter there was an increase in [redacted] supply, resulting in an increase in related compression hours over a shorter concentrated period.

The reduction in [redacted] supplies led to an overall decreased need for compressor operation on the network, resulting in approximately 6,087 fewer compressor running hours as detailed in **Figure 13.**

For context, total compressor run hours were approximately 35,000 in 2021/22 and 50,700 in 2022/23 with the lowest running hours in recent years being 26,191 hours in 2019/20, with 2024/25 above that with 32,111 hours.

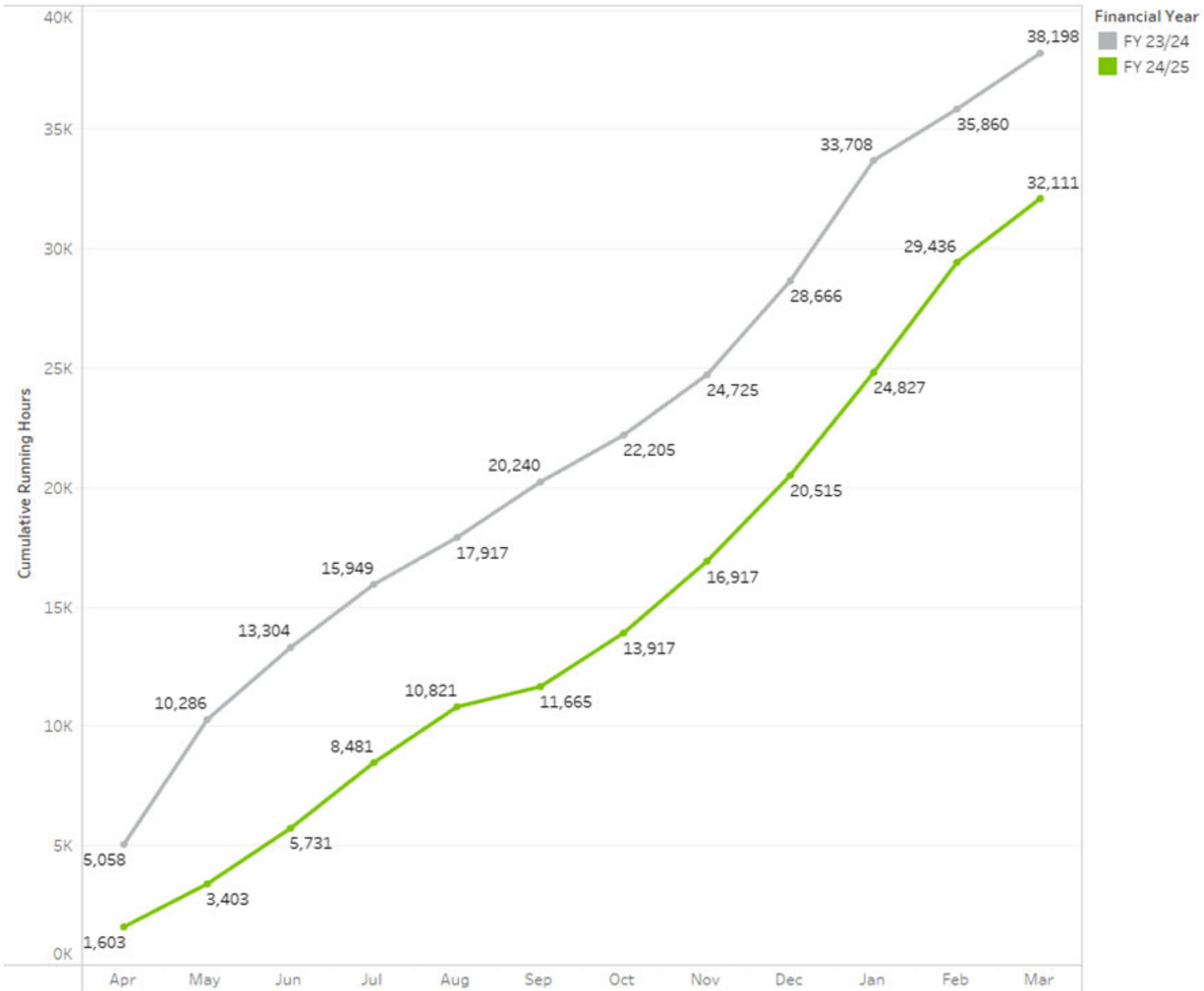


Figure 13: Total compressor run hours

Meet the needs of consumers and network users

Our customers and stakeholders have told us that they want us to deliver a high quality and reliable service to all network users and consumers. They expect data and insights that we produce to be transparent, accurate and timely, and for our processes to allow for quick and easy connection or disconnection to the network.

This chapter details how we have performed against the deliverables that sit within the 'Meeting the needs of consumers and network users' priority area. Our customer and stakeholder satisfaction survey results and have maintained strong scores this year.

We've also achieved strong results across our system operator (SO) incentive areas including demand forecasting, maintenance, constraint management, and residual balancing, by continuously seeking performance improvements and successfully meeting all our incentive scheme targets.

Image: Churchover Compressor Station

Output summary table

Our output	Description	Output type	2024/25 target	2024/25 performance	2024/25 financial incentive/penalty (£m, 18/19 price base)	RIIO-T2 forecast – financial incentive/penalty (£m, 18/19 price base, total forecast incentive revenue for the remainder of RIIO-T2)	RAG status
Customer and stakeholder satisfaction (CSAT/ SSAT)	Undertake annual satisfaction survey with our customers	ODI-F	CSAT - 7.8/10	CSAT - 8.89	£3.65m	£3.57m	
	Undertake annual satisfaction survey with our stakeholders	ODI-R	SSAT - 7.4/10	SSAT - 7.93	N/A	N/A - Reputational	
Quality of demand forecasting	Deliver accurate day ahead demand forecasting (D-1)	ODI-F	< Fixed target of 8.35 mcm + Demand Forecasting Storage Adjuster (DFSA) = 8.51 mcm average forecast error	7.91 mcm average forecast error	£0.23m	£0	
	Deliver accurate demand forecasting at the two to five days ahead stage (D2 to D5)	LO	< 13.70 mcm average forecast error	12.65 mcm average forecast error	N/A	N/A - Reputational	
Maintenance	Deliver benchmark performance for maintenance outage day (including valve operations)	ODI-F	11 days or less	0 maintenance days called	£0.5m	£0.4m	
	Deliver benchmark performance for maintenance outage day (excluding valve operations)		75% of NG driven customer impacting works aligned with customer outages	94.6% of customer impacting works (excluding RVOs) were successfully aligned with customer outages			
	Minimise NGT driven changes to maintenance planning		< 7.25% (16.4 days)	10 change days initiated by us during maintenance period			
Entry and exit capacity constraint management	Meet constraint management target	ODI-F	£8.5m	£0 costs, no commercial constraint actions taken during the 2024/25	£3.8m	£3.11m	
Residual balancing	Meet residual balancing linepack performance measure (LPM) target	ODI-F	<2.8 mcm average daily change	1.6 mcm average daily change	£1.06m	£0.34m	
	Meet residual balancing price performance measure (PPM) target	ODI-F	Difference 1.5% of SAP	Difference 0.5% of SAP			
Digitalisation	Set out our approach to using data and digitalisation to deliver benefit for our stakeholders and society	LO	Publish Digitalisation Strategy and Action Plan (DSAP)	DSAP published December 2024 Independent Digitalisation Strategy published March 2025	N/A	N/A	

Table 4: Output Summary Table: Meeting the needs of our consumers and network users

Our digital strategy and action plan (DSAP)

Our DSAP is designed to meet the expectations of our customers and network users. As better tools and more data become available, they help improve efficiency and support smarter decision-making.

Delivering our RIIO-T2 commitments and the new IT landscape post-separation from National Grid, has given National Gas Transmission a solid foundation to progress our Digitalisation Strategy.

We are becoming increasingly data driven, enabling richer information to guide our decision making, leveraging digital technologies to drive engineering and operation excellence, further enhancing our productivity and securing GB energy and the transition to a net zero future.

A strong emphasis has been put on the governance of the delivery work. We have produced a data strategy consisting of frameworks that enable compliance with our metadata policy (including our alignment with Dublin Core) and data quality policy, as well as with Ofgem's data best practice. These frameworks are made up of standards, guidelines, and templates and are being rolled out with internal training and communications to ensure behaviours are embedded across the organisation. We have also produced a strategy document for the approach and usage of artificial intelligence. This defines how we build and operate Machine Learning and Generative AI (ML/AI), with a focus on productionising well-established machine learning and deep learning techniques. We will do this while managing the risk of vendor embedded generative AI tools and learning methods. We will implement tailored governance processes to prevent the risks of data leakage and automated systems operating on poorly governed data and models. Failing to prevent these risks could lead to poor decision making in a safety-critical environment.

RIIO –GT3

Based on digital categories provided in table 11.2 by Ofgem for the RIIO-GT3 submission, 72% of our RIIO-GT3 investments are classified as Digital, reflecting the focus of our efforts to further digitalise. This progression benefits our own processes and enables the delivery of business outcomes, adherence to standards and guidelines, and leverages innovation to support delivery of Asset Management Plan. It also drives value for others through greater data sharing and access to the gas network. These were highlighted in the published 'Digitalisation Strategy December 2024 with RIIO-GT3 addendum'.

Further project-level details can be found in the IT and Telecoms submission.

Continued focus areas (further outlined in the March 2024 strategy document)

Data foundation

Continuous deployment of reporting, analytical and visualisation capabilities, along with modelling for robust supply and demand forecasting. Emphasis has been given on data quality, integrity and governance.

Data sharing platforms

With the new gas data portal, more data is available with improved search functionality facilitating better customer experience.

Digital Twin

Processes and methods for management of National Gas's own Common Data Environment (CDE) is being developed with continuous configuration. Further integration work is being discussed to connect other systems and data sources.

Enhanced decision making

We continue to use advanced decision analytics to enhance decision-making processes. A good example is the Google AI cost reporting within the upgraded Gemini system.

Efficient enterprise essentials

With the deployment of right sized back-office systems supported by refreshed infrastructure including cloudification and reporting mechanism, the organisation is working on collaborative skill development for its resources.

Data best practice

At National Gas, we have made significant strides in establishing a framework for data principles, policies standards, guidelines and templates which trace back to the Ofgem Data Best Practice Guidance.

We have made an investment to ensure that this data framework becomes embedded in our business as usual (BAU) mindset and processes. We have also made an investment to create training collateral along with socialisation within the business so that this data literacy is embedded into the culture. This is a long running process, and the journey is progressing well.

We have established the key templates required and are now progressing through building them out so that we can move towards comprehensive data lineage and traceability. We have released multiple data policies, templates, processes and standards to improve our compliance and the accuracy of our data. This work leverages some of the RIIO-T2 data quality line items. We are embedding the Ofgem Data Best Practices as we get into new systems and change so that we document the National Gas estate in a cost-effective manner.

Industry engagement and collaboration

The work we're doing internally has been extended to external forums through engagement with the National Energy System Operator (NESO), Department for Energy Security and Net-Zero (DESNZ), as well as the newly formed Gas Data and Digitalisation Collaboration Group (GDDCG). The GDDCG is a result of the gas companies withdrawing from the Energy Networks Association (ENA).

We are continuing our broader industry collaboration and, although we have ended our official membership to ENA, we continue engagement by taking part in two ENA-led projects. These are the Shared Data Licensing and Data Triage Playbook Refresh, to be more cost effective in the delivery of these artefacts. These projects are fundamental to evolving our maturity to data best practice compliance and to help the industry realise the energy network of the future.

We also appreciate that we must collaborate across the entire energy sector, and not just gas, in order to be part of comprehensive energy system use cases.

We meet regularly with NESO to identify potential use cases for the Data Sharing Infrastructure. There is a focus on forecasting and modelling data shared between the two organisations, and how we can improve this to ensure more robust security of supply planning.

Evolving our data best practice guidance into RIIO-GT3

Data sharing and interoperability continue to be key topics for us and the wider industry. We have therefore ensured that our work closing out RIIO-T2 and roadmap going into RIIO-GT3 reflect the continued focus and investment moving us to full compliance and beyond.

Measuring customer satisfaction

In 2024/25, we focused on increasing response rates from our significant interactions, as defined in collaboration with our Independent Stakeholder Group (ISG), with customers. This approach has been highly beneficial, allowing us to gather meaningful feedback to further improve our services. We have used these insights to increase engagement and collaboration in meetings with our customers, and help our customers identify relevant contacts quicker to resolve issues faster. This has positively impacted our CSAT response rate, rising from 39% in 2023/24 to 49% in 2024/25.

Due to our continued focus on significant interactions and an increase in direct engagements with customers instead of events and webinars, our number of CSAT submissions decreased and we received a total of 74 CSAT responses in 2024/25, this is a slight decrease from the 79 recorded in 2023/24. Further increasing our responses and response rates remains a key target for us to ensure we are capturing as much meaningful feedback as possible. This year we achieved a customer satisfaction score of 8.89 against a baseline of 7.8, an increase of 0.33 against last year's score. Five out of our nine areas had increases in scores compared to last year and four areas saw decreases in score (Maintenance Services, Connections Process, Project Union, and Events).

The score for Maintenance Services remained high at 8.67 (compared to 9.00 in 2024/25).

The Project Union area had a score of 8.00 (compared to 9.00 in 2024/25) but with double the response volumes.

Our Events score of 7.75 was only just below our baseline with 4 responses, a decrease in both score and responses from last year (from an average of 8.4 and 17 responses).

In order to address the decline in responses, we are working internally to identify potential opportunities for market-wide events in the future.

Our Connections Services score has fallen from 8.63 in 2023/24 to 6.83 this year. This is the outcome of rising costs for contractors, and challenges in delivering welding services, which has put pressure on delivery and resources. This has resulted in delays for our customers, as seen in our feedback. We have taken this on board and sought to improve our services by minimising delays. We will do this through exploring alternative construction methods where possible, utilising external expertise to reduce internal skills gap, and having reserve stock of key materials to reduce lead times and project delays.

Our highest scoring area for CSAT this year was Capacity Auction Services, which has had good quality feedback. Customers mentioned the team's speed, efficiency, and helpful staff as key positive attributes. We also received high scores for Operational Liaisons, and Energy Balancing Services, which shared similar themes, highlighting how much customers value teams who reduce ambiguity through clear and prompt communications.

Our SSAT response rate declined slightly from 29% in 2023/24 to 23% in 2024/25 but responses have increased from 40 in 2023/24 to 100 this year with a score of 7.93 against a baseline of 7.40, this is a decrease of 0.82 from the previous year. Scores, response rates, and volumes have been impacted by the inclusion of our procurement partners in a company-wide satisfaction survey this year. Historically, this survey was issued informally outside of SSAT. This year we have formalised and standardised the survey since our procurement services impact the services we provide.

Our procurement partners scored us on average at 7.70, citing some issues around the speed and ease of communications. The procurement services we provide are vital to ensure our business runs smoothly for our customers and as such we are looking to improve the service and action feedback where possible.

To deliver our RIIO-T2 commitments, and to prepare for RIIO-GT3 we have implemented several initiatives including:

- having more regular touchpoints with business areas to drive actions from CSAT and SSAT feedback
- introducing greater risk management processes and points of escalation to increase awareness of issues and reduce delays in response where possible
- streamlining processes and communications internally and externally to further enhance our customer service and stakeholder relationships.

Demand forecasting incentive

Demand forecasting is a key tool for the UK gas industry to better understand their respective demand and balance positions. We publish the national demand forecasts for day ahead (D-1) and for two to five days ahead (D-2 to D-5).

Our NTS GT License and the Uniform Network Code (UNC) require us to provide national demand forecasts to help the industry make efficient decisions regarding supply and demand. We publish daily national demand forecasts for day ahead (D-1) , this is a financial incentive for RIIO-T2, and two to five days ahead (D-2 to D-5) which is a reputational incentive in RIIO-T2. By providing an accurate demand forecast we enable Shippers to make more timely and informed balancing decisions resulting in lower wholesale prices.

Ofgem recognised the improvements that the Demand Forecasting incentives had driven during the RIIO-T1 period and opted to continue with a D-1 financial incentive scheme for RIIO-T2. The D-2 to D-5 scheme was changed to a reputational incentive scheme with a corresponding Licence Obligation to report annually to the Authority on our performance. The provision of timely and accurate forecasts aids the efficient operation of the market from both a physical and commercial perspective, which ultimately reduces operating costs and should therefore reduce end consumers' bills. We strive to continually optimise our forecasting processes, to deliver greater accuracy and increase customer and ultimately consumer benefits. The weighted average error on the D-1 incentive was 7.91 mcm against a target of 8.51 mcm (Fixed target of 8.35 mcm + Demand Forecasting Storage Adjuster (DFSA) of 0.16 mcm). The weighted average error has increased slightly this year from 7.86 mcm in 2023/24. The associated incentive revenue for 2024/25 is £0.23m, compared to £0.26m in 2023/24. The DFSA was put in place as part of the RIIO-T1 price control. It is designed to take account of storage sites being able to withdraw/inject on the same day and the impact that this has on the demand forecasting and associated volatility. Although this remains an element of the demand forecasting volatility,

Given the changes in the overall supply/demand backdrop (LNG, renewables etc), it is no longer the main element impacting demand forecasting volatility. The D-2 to D-5 incentive weighted average absolute error was 12.65 mcm in 2024/25 against a target of 13.70 mcm. The weighted average error has decreased from 12.89 mcm in 2023/24. There is no associated incentive revenue for this scheme as the scheme was amended to reputational only under RIIO-T2. The volatility of global gas markets continued to impact both supply and demand during the last year. The total annual exports via BBL and IUK have decreased from ~8.8bcm in 2023/24 to ~6.2 bcm in 2024/25, at the same time the total annual LNG supply to the GB market was 11.4 bcm in 2024/25 compared to 14.7 bcm in 2023/24. From a demand forecasting perspective, 2024/25 proved to be another challenging year as ongoing global uncertainties led to continued volatile gas and electricity markets, both from a forward curve and SAP price perspective, albeit less volatile than 2023/24. During the winter months the SAP ranged from 93.72/th on the 8 March 2025 to 144.35p/th on 11 February 2025. The previous winters range was 55.02p/th on 18 February 2024 to 133.87p/th on 15 October 2023. In 2024/25, demand over 300 mcm also increased by 12 more days compared to 2023/24. In 2023/24 demand exceeded 300mcm 22 times, whereas in 2024/25 it was 34 times. Moreover, we saw 14 days where there was a greater than 40 mcm total demand change from the previous day (2023/24 comparison was 15 days). The highest of these daily demand changes was 75.89 mcm compared to 68.28 mcm last year. The absolute day-on-day average change in demand remains relatively high at 12.56 mcm (2023/24 comparison was 13.02mcm/day). Although difficult to quantify, expected changes that do not happen impact the forecast and performance i.e. no volatility can be difficult to forecast such as a site delaying its return to service from a planned outage. During winter the absolute average day-on-day change in demand increased from 15.45mcm in 2023/2024 to 16.58mcm in 2024/25. Power Station gas usage continues to be highly variable, with new sources of electricity from renewable generation and increased capacity from electricity interconnectors impacting the variability and accuracy of forecasting gas for power. The end of coal fired generation increases the reliance of gas to provide power in the absence of renewables. We saw a winter high of gas usage for power generation of 107.4 mcm. The day-to-day change in Power Station demand is increasing as renewable capability and electricity interconnector capacity increases. In 2024/25 there were 3 days where the day-to-day changes in Power Station Demand have been more than 40 mcm with a maximum change of 49.56 mcm and an average change of 10.9 mcm. This average change is higher than the 10.7 mcm observed during 2023/24. In 2024/25 wind energy contributed an average of 25% to the total electricity generation. The peak generation from wind energy reached 53%, surpassing the 52% peak in 2023/24. Wind is increasingly becoming more important in demand forecasting, impacting both power stations and LDZ demand through embedded generation. Changes to wind forecasts continue to impact on forecasting accuracy. Using data published on the Elexon Balancing Mechanism Reporting Service and converting to an mcm impact for a gas day and applying an average efficiency factor of 52%, the daily average error in a day-ahead wind generation forecast is 4.73 mcm in 2024/25 and 4.13 mcm in 2023/24. The maximum error is 26.65 mcm in 2024/25 and 19.32 mcm in 2023/24. The electricity imports via interconnectors increased to an average of 17.2% of total electricity generation in 2024/25, compared to 14.4% in 2023/24. This increase is partially attributed to the Viking Link (approximately 2%), which became operational in December 2023. In addition, there has been another new interconnector, Greenlink, further connecting the power markets of Ireland

and GB which went live in January 2025, adding to the complexity of forecasting gas for power. Unplanned maintenance impacts day-ahead supply and demand forecasts. Gassco for example, recorded 225 unplanned maintenance events in 2024/25, compared to 190 events in 2023/24. The weighted average capacity change was 11.87 mcm/d in 2024/25, higher than the 10.87 mcm/d in 2023/24. As an example, on May 30, 2024, our demand forecast error was 19.02 mcm. This was driven by an unplanned maintenance event at Kollsnes which led to a reduction in supply of 12.49 mcm. Additionally, there were unplanned supply reductions of 16.87 mcm at SEGAL on the same day, nearly twice our weighted average error allowance. We have continued to see LNG tankers being diverted to other countries, this can be as a result of global market dynamics or the impact of weather preventing vessels from docking. In 2024/25, we have seen changes to scheduled deliveries, with 8 vessel changes at [redacted] and 15 diverted from [redacted] which, due to reduced LNG supplies, is lower than the 2023/24 changes to scheduled deliveries, with 25 vessels diverted from [redacted] and 17 diverted from [redacted] In 2024/25 we saw an increase in LDZ demand driven by two main factors: colder weather and changing customer behaviour with changing energy prices. The total non-daily metered LDZ demand in 2024/25 was 30.22bcm compared to 28.48bcm in 2023/24, an increase of 6.1%, on a weather corrected basis it was an increase of ~2%. We continue to focus on improving our demand forecasting accuracy and throughout 2024/2025 we have embarked on several activities to drive improvements, including: Process improvements:

LDZ demand: Given the fluctuations in the energy price cap, we held a webinar with external stakeholders, such as Centrica and Correla, to better understand their views on consumer behaviour for the upcoming winter and what impact this may have on LDZ demand, specifically domestics. .

Supply forecasting: We have continued to focus on identifying ways to better understand supply behaviour and its influencing factors. Throughout the year, we have maintained active engagement with sites to gain insights into their operations and forecasts. .

Power Stations: We have focused on developing our internal demand forecasting models, which will continue in the coming years. However, there are challenges such as inaccuracies in total electricity demand and wind generation forecasts, as well as difficulties in predicting the behaviours of electricity interconnectors which we continue to look to improve on. The current focus has been on gaining an understanding of the price impacts at the day ahead stage and we hope to be able to add this into future models.

Error tracking and model performance monitoring: We continue to consider both on an individual and team level the root cause of any errors, this helps us understand the focus areas for any future improvements. Additionally, we have monitored various forecasts from our models alongside the NESO forecasts for total electricity demand and wind generation. This approach has enabled us to discern trends in wind generation, power generation and fluctuations to electricity interconnectors in generating our power station gas demand forecasts.

As we move towards the end of the RIIO-T2

period, we will continue to explore the utilisation of new data and models. We continue to look to build flexibility to incorporate future data sources and support internal modifications to our processes. This approach is expected to facilitate more timely adjustments at reduced costs, enhancing and implementing improved models to minimise manual forecasting activity. We will continue to assess and review the potential for process and data acquisition automation to improve the performance of our machine learning models as we head towards RIIO-GT3.

Peterborough compressor station

Maintenance

We undertake maintenance to ensure the ongoing reliability and integrity of the NTS. If work requires an outage, or to reduce the flexibility available at one or more direct exit connections, we may 'call' one or more 'Maintenance Days' in accordance with the Uniform Network Code (UNC).

We plan maintenance activities to minimise disruption to customer operations. If the maintenance period has no impact on customer contractual rights, this is communicated as an 'Advice Notice Day'. Where this is not possible, a 'Maintenance Day' will be called. We are incentivised to minimise the use of maintenance days and changes to the maintenance plan. The Maintenance Incentive Period runs from 1 April – 31 October each year, to align with the summer outage plan.

To incentivise the efficient planning and execution of network maintenance impacting customers at direct exit connections from the NTS, the maintenance incentive is split into three scheme components:

1. Use of Days - Maintenance days of Routine Valve Operations (RVO)
2. Use of Days - Maintenance days, excluding RVO)
3. Changes - Minimisation of changes initiated by us to the agreed maintenance plan

1. Use of Days - Maintenance days (Routine Valve Operations)

The Use of Days – Maintenance Day (RVO) scheme is designed to reduce the impact we have on our customers when we undertake our routine maintenance activities including RVO. All RVO activities were completed in 2024/25, whilst still ensuring minimal impact to customers. This was achieved using zero maintenance days, outperforming our target of 11 days or fewer. Dates for valve operations are chosen based on outage information submitted by customers with the aim of alignment. Once notices are sent out in January, we can reschedule RVOs based on customer feedback. For example, during 2024/25 RVOs at [redacted] power station that initially required a Maintenance Notice due to a lack of alignment were rescheduled and downgraded to an Advice Notice upon being notified of a new outage plan by the customer. In 2023/24 we achieved all RVO activities utilising one 'Maintenance Day' with the rest achieved through 'Advice Notices'. This element of the RIIO-T2 scheme is downside only (£0.5m collar). As we outperformed the target of 11 days or less, no financial downside was triggered, and we incurred £0 cost under this element of the incentive scheme.

2. Use of Days – Maintenance days (excluding Routine Valve Operations)

The Use of Days – Maintenance Day (excluding Routine Valve Operations) scheme is designed to reduce the impact we have on our customers for all other maintenance activities (excluding RVO).

In 2024/25 the incentive included 184 days of customer impacting works, of which 174 were aligned to customer outages. This demonstrates that 94.6% of customer impacting works (excluding RVOs) were successfully aligned with customer outages against a target of 75%. This compares to 149 days of customer impacting works in 2023/24, of which all 149 were aligned to customer outages (100% of customer impacting works).

The 10 Maintenance Days used this year were to facilitate defect remediation at a site which was dependent on an entry customer flow cessation. As the exit customer did not have a planned outage during this period, no alignment was possible. The need for an exit flow cessation was communicated to the customer in advance to give them sufficient time to prepare.

This element of the RIIO-T2 scheme has a capped upside and collared downside of +/-£0.5m, for this element, in 2024/25 we outperformed the target leading to an outcome of £0.5m from the incentive scheme.

3. Changes - Minimisation of changes initiated by us to the agreed maintenance plan

The aim of the Maintenance Day Changes scheme, is to reduce the impact our maintenance activities have on customers, should we make changes to our planned maintenance after 1 April for the forthcoming summer maintenance period. The incentive scope does not include changes that were initiated by customers, only those initiated by us are included, as they represent where we have a direct impact on customers as a result of us changing our plan.

The Maintenance Day Changes scheme includes any maintenance plan days called; it is not limited to RVOs. In total, there were 226 days (inclusive of 174 days in the Use of Days – Maintenance Day (excluding Valve Operations)) of planned maintenance in 2024/25 compared to 197 days in 2023/24. This led to an updated benchmark for changes (target) of 16.4 days in 2024/25, which is 7.25% of all Maintenance Days and Advice Notice Days called. This compares to a benchmark for changes (target) of 17.55 days in 2023/24.

In 2024/25, there were 10 change days initiated by us during the maintenance period. This is an increase compared with the zero changes seen in 2021/22, 2022/23 and 2023/24. Six of these change days were due to overrunning asset replacement works caused by late material delivery, while the other four were due to rescheduled RVOs due to resource constraints. Given the increased workload seen in 2024/25, this performance continues to demonstrate the incentive continues to encourage National Gas to minimise change to works, that depend on alignment with customer outages.

This element of the RIIO-T2 scheme is downside only (£0.5m collar). Therefore, as we outperformed the target, we out turned at £0

under this element of the incentive scheme. This performance was primarily delivered through carefully monitoring our maintenance and communications processes, including continuing with our customer face-to-face meetings with renewed engagement at least eight weeks prior to the planned maintenance affecting them, allowing us to capture any changes to customer outages earlier, to maximise the potential to align and therefore cause minimum disruption

The number of maintenance plan days categorised under the scheme has increased in 2024/25 compared to 2023/24 due to the overall number of maintenance jobs also increasing. The number of jobs related to non-RVO works (Inline Inspection (ILI) runs, Defect Inspections and Asset Replacement) requiring notices increased from eight to 13 in 2024/25. It is still expected that the number of maintenance activities will remain broadly consistent with 2024/25 levels -for the remainder of RIIO-GT2 but may fluctuate depending on the location of non-RVO works.

Find the our annual review of the 2024/25 maintenance programme here.

Churchover Compressor Station

Capacity constraint management (CCM)

The entry and exit CCM incentive drives us to maximise available network capacity and minimise constraint management costs, through effective planning and operation of the network.

The CCM incentive delivers value to the industry and end consumers, who benefit directly from outperformance through the current incentive sharing mechanism. The overall scheme performance for 2024/25 was £3.8m, an increase of £0.1m from 2023/24.

We report on revenue generated from; Non-Obligated Entry and Exit Capacity, Physical Renomination Incentive charges, and any further revenues derived in accordance with the Constraint Management scheme. We also report Constraint Management costs or revenues resulting from entry and exit capacity buy back, locational buy and sell actions, turn-up and turn-down contracts, offtake flow reductions, and investment constraint management costs. There has been a 24% increase in the total revenue generated from the release of Entry and Exit Non-Obligated capacity. Revenue from all Non-Obligated capacity was £9.1m, whereas for 2023/24 it was £7.2m. The increase is explained below.

There were no commercial constraint actions which generated any costs or revenues. All emerging and potential capacity constraints were managed using operational tools and bespoke strategies aimed at minimising financial and operational impacts to our customers.

Non-Obligated Entry Capacity

Revenue from all Non-Obligated Entry Capacity was £5.1m. This is 104% higher than in 2023/24, when revenue from the same product was £2.5m.

Higher volumes of short-term Non-Obligated Entry capacity were sold at [redacted] saw increased utilisation year-on-year. All [redacted] capacity for Jan-Mar 25 was allocated in long-term auctions. Shippers also requested, via the short-term auctions, capacity at [redacted] above our obligated levels. We were able to support demand for short-term products by making additional volumes available as Non-Obligated capacity. These requests were assessed based on the risk/reward of each occurrence, for example based on prevailing asset availability and forecast flow patterns.

The [redacted] site generated a 186% increase in Non-Obligated Entry capacity revenue, while [redacted] generated a 289% increase over the same period. Despite lower capacity volumes sold at [redacted] compared to [redacted], the site delivered higher revenue due to the higher applicable reserve price at that location (as a storage site [redacted] has an 80% reserve price discount).

The volume of long-term Non-Obligated Entry Capacity across the two reporting years was very similar, though more revenue was generated in 2024/25 due to a year-on-year increase in average reserve prices from 0.049 p/kWh in 2023/24 to 0.079 p/kWh in 2024/25.

Non-Obligated Exit Capacity

Non-Obligated Exit capacity revenue decreased by 15% from £4.7m in 2023/24 to £4m in 2024/25.

Short-term Non-Obligated Exit capacity bookings decreased by 11%, resulting in a decline in short-term revenue.

The most significant change year-on-year was seen at [redacted] where the volume of short-term Non-Obligated Exit capacity decreased by 100% compared to 2023/24 which had also decreased from 2022/23. It is worth noting that although lower than in 2023/24, 2024/25 [redacted] volumes remained higher than levels seen prior to the onset of the war in Ukraine, which sparked unprecedented levels of exports to replenish EU storage. Less significant changes were seen at [redacted] 6% increase) and [redacted] (~6% decrease).

Long-term Non-Obligated Exit capacity volumes declined by 30% year-on-year, with a corresponding 33% reduction in long-term Non-Obligated revenue.

Capacity constraint risk management

We assess the impact of maintenance throughout the year; be that planned maintenance (primarily undertaken in summer months, as per the annual maintenance plan), or unplanned maintenance (undertaken in response to unforeseen events or circumstances). We assess the level of risk and determine the most efficient approach to take, with consideration of aspects such as the urgency and duration of the work, and the potential physical and commercial impacts. This is essential to ensuring the right decisions are made for our customers, as any reduction in asset availability can heighten the risk of a network constraint and consequential costs.

Several potential or emerging constraint risks were effectively managed using operational tools and strategies, for which we provided analysis and support to the relevant teams across the business. In all cases these strategies proved effective as no capacity constraints manifested on the network and any customer impacts were mitigated as well as the potential costs of using commercial tools being avoided.

We proactively assessed the inherent risk of Entry capacity constraints at the [redacted]. For summer 2024, we assessed the latest view of capability levels against historic and forecast supply, using our Constraint Risk Modelling Tool to generate the likelihood and potential cost of capacity constraint days. For both Summer and Winter, the use of on-the-day commercial tools were considered likely to be a more efficient approach should a constraint occur, so no Constraint Management Agreement (CMA) work was pursued. After completing our summer risk analysis, we became aware of complications with planned valve replacement work at [redacted]

From April 2024, analysis was undertaken to support collaboration across Gas System Operator (GSO) relating to the planned [redacted] valve filter replacement work. [redacted] is located west of [redacted] compressor station and provides ~60mcm/d entry capability for the [redacted]. An extension was required to the scheduled works duration which significantly reduced [redacted] Entry capability for a longer period. This work had been aligned with customer's flow expectations, though

Meet the needs of consumers and network users continued

the extension presented a heightened capacity constraint risk should LNG supplies increase. Optioneering was undertaken and an alternative technical solution was adopted which halved the original extension duration and period of increased risk. Alongside this supply chain collaboration, increased communications with the terminal and customers provided us with a better understanding of flow expectations prior to and during the physical works. A commercial impact analysis was also undertaken to understand the potential impact of commercial actions on all parties, should intervention be needed. Despite many technical and site-specific challenges, the alternative technical solution was successful, flows remained within the capability of the network during the work, and the work was completed with no additional impact or cost to customers. The new filter design in place means that future filter changes will not require a full isolation.

In June 2024, we undertook analysis in response to a customer request to return assets to service earlier than the pre-agreed planned works completion time. This request presented an entry constraint risk at Teesside as firm capacity had been sold. We assessed the potential cost of buying back capacity, should the customer decide to flow before the work completed. The significant financial risk forecasted resulted in our Operations team accelerating their work programme, and Operational Delivery team working with the customer to agree an acceptable return to service date.

In August 2024, an unplanned outage at the [redacted] coincided with increased export flows to Europe and low LNG supplies. NTS demand was being managed predominantly through supplies from [redacted] and storage withdrawals. Network modelling identified that proceeding with a scheduled maintenance outage on [redacted] would result in a pressure drop at Pembroke, and thus heighten the risk of capacity constraints in the Southwest. Given the uncertainty surrounding the duration of the [redacted] outage, the decision was made to reschedule the Feeder 14 outage in order to meet the customers' requirements. The majority of the Feeder 14 work was able to be completed, though the remainder of the work required an outage and will be rescheduled. Assessments at the time confirmed that there were no safety, legislative or customer impacts associated with delaying this work.

On 9 November 2024, [redacted] was declared unavailable due to a valve fault, introducing uncertainty regarding its return to service timeline. A planned outage to replace a power turbine on [redacted] was scheduled to start on 14 November, though contingent on full compression availability at both [redacted]. Due to the unavailability of [redacted] outage was deferred (and subsequently completed) to maintain sufficient compression to support [redacted] entry flows and prevent a potential constraint.

[redacted] This prompted a pressure restriction of 68 bar (from the standard 73 bar) to facilitate further inspection. A request for 73 bar by the customer was considered unlikely, though this could have resulted in an Exit constraint. A manual boundary control was implemented by

Meet the needs of consumers and network users continued

Gas Network Control with operational staff to set a temporary compressor strategy, in order to mitigate increased pressure risk and ensure any constraints were avoided.

Supporting our customers

We continually strive to improve and provide high standards of service to customers and to support industry with regards to the capacity regime. Our aim is to help raise understanding and aid participation in capacity auctions, and to provide a contact point for any capacity related processes and queries. Throughout the year, we used several different approaches as a means of raising awareness and offering support, all with the objective of helping meet customers' requirements and managing network capacity more efficiently.

We supported several industry Gas Operational Forums on capacity-related topics. Our input was primarily for "Interesting Days" and "Quarterly Incentive Update" agenda items, as there were no deep-dives required for constraint actions taken in this reporting period. Other topics included: release of Non-Obligated capacity at [redacted] Exit IP (September 2024); our exit from the Energy Network Association mailing list (October 2024), and a walkthrough of the Capacity Data Portal (November 2024).

We supported the progression and subsequent termination of the Western Gas Network Upgrade project throughout 2024/25. This Entry PARCA (Planning and Advanced Reservation of Capacity Agreement) would have included a physical upgrade to NTS assets in the South West and resulted in a permanent increase to Baseline capacity at the [redacted] ASEP (Aggregates System Entry Point) of circa 163 GWh, subject to Authority approval. Analysis was provided in support of bilateral discussions and system testing was completed to prepare for a successful capacity allocation. Since the PARCA termination in August 2024, further analysis has been undertaken (and continues) for us to assess the risk associated with higher [redacted] flows resulting from increased customer capability, prior to NTS investment.

During winter 2024/25, we implemented a manual process to support the transfer of capacity from [redacted] ASEP to the [redacted] facility and provided support to the customer and Ofgem throughout the development and implementation of UNC Modification 0878 (Use of Entry Capacity Holdings at [redacted] at the [redacted] ASEP in Winter 2024/25). This was a continuation of UNC0846 through Winter 2023/24.

We support customers and stakeholders on all aspects of the capacity regime, via our email and calls. We seek and act on feedback so we can continually improve our service, ensuring customers' needs have been fully satisfied and that additional information is provided to further their understanding, where required.

Residual balancing

In our role as the residual balancer of Great Britain's gas market, we can take market actions to encourage Shippers to balance their individual portfolios and improve the national balance.

The aim of the residual balancing incentive scheme is to incentivise our residual balancing activities in two ways:

- The Linepack Performance Measure (LPM) incentivises us to minimise the differences in the linepack volumes measured at the start and end of each gas day. This is to help ensure that any system imbalances within the gas day are managed, and that any associated costs are levied across those system users responsible for that day's imbalance.
- The Price Performance Measure (PPM) evaluates the impact we have 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). This incentivises the System Operator to minimise the impact it has on the market.

The LPM element for 2024/25 achieved a daily average linepack performance of 1.6 mcm/d, compared to the 2.8 mcm/d incentive target. This is an improvement in performance from 2023/24 where the average linepack performance was 1.8 mcm/d.

The LPM, in absolute terms, was lower than the incentive target of 2.8 mcm/d on 309 days during the year (85% of days), an increase in performance compared to 2023/24 (287 days, 78% of days). Whilst this is positive performance it has not been without its challenges and on the 56 days where LPM performance did not achieve the incentive target of 2.8 mcm/d, LPM averaged over a 4 mcm/d change and peaked at over an 8 mcm/d change. For 2023/24, on the 79 days where LPM performance did not achieve the incentive target of 2.8 mcm/d, LPM averaged 3.9 mcm/d change and peaked at 7.9 mcm/d change.

The PPM element achieved an average price spread of 0.5% of SAP, compared to the 1.5% incentive target, although we have seen 31 days where the price spread was greater than the incentive target of 1.5%, peaking at over 8%. The 0.5% in 2024/25 represents an improvement in the average price spread performance compared to the 2023/24 value of 0.9%. We took Residual Balancing actions on 235 days (64%) compared to 241 days (66%) in 2023/24. On the days when we took actions, the average price spread was 0.8%, compared with 1.4% in 2023/24.

Gas prices and price volatility both between and within days have continued to reduce, although in 2024/25 we have still seen price volatility with SAP changing by up to 8% between consecutive gas days. We continue to manage wide system imbalances in supply and demand throughout the gas day, presenting a challenging environment for Residual Balancing to operate efficiently in. As a result, we continue to enter the market earlier and more frequently during challenging periods.

In 2024/25 we embedded and enhanced our weekly residual balancing insight reporting, which was introduced in the previous year.

We also introduced regular analysis which deep dives into specific balancing days. This is used internally to inform future strategic changes and informing dedicated discussions with individual Shippers and the industry in general. As a result of the analysis, we have a greater understanding of the drivers behind balancing behaviour, emerging trends, and associated risks.

Maintain a safe and resilient network

Providing a safe and resilient transmission network that is efficient and responsive to change is fundamental to everything we do. Through the development of our RIIO-T2 business plan, our customers and stakeholders told us that safety of the public, our employees and of our assets is a key priority. They expect to be able to access a resilient and reliable network and to be able to flow gas without restriction.

This year we have made positive progress against a majority of our outputs in this priority area, We have successfully delivered an increase in non-lead asset interventions (such as fences, gates, roads, pathways, and pipe supports), for example Structural Integrity assets, 525 PCD nonlead Civils volumes have been delivered and claimed in 2024/25. This is an increase from 443 volumes delivered in 2023/24.

We have also submitted re-openers to address [redacted] site redevelopment and [redacted] subsidence.

[redacted]

Image: Churchover Compressor Station

Output summary table

Our output	Description	Output type	2024/25 target	2024/25 performance	RAG status
Network Asset Risk Metric (NARM)	Deliver our baseline network risk outputs (measured as long term risk benefits (LTRB)) as a result of asset health investment into our lead secondary assets using baseline NARM allowances.	PCD	Deliver our baseline network risk outputs of R£200.77m (across three risk sub-categories) by the end of RIIO-T2. With the final decision on all asset health Uncertainty Mechanisms, we are expecting to rebase our target and update the NARM. This activity will take place in 2025/26.	Projects delivered in 24/25 have a large LTRB associated with them, as delivery ramps up in a number of themes. Looking forward to 2025/26 we are on track to achieve our current target, with the expectation that we will provide an assessment of current forecast against the rebased target when it is submitted.	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
Annual Network Capability Report	Publish annual ANCAR document	LO	N/A	This is no longer an NG license obligation and is now completed by NESO as under the Gas Network Capability Needs Report (GNCNR)	
Exit capacity	Run the annual exit capacity process in accordance with the Exit Capacity Planning Guidance (ECPG)	LO	Run the annual exit capacity process in accordance with the ECPG	Run the annual exit capacity process in accordance with the ECPG	
Asset health non-lead assets	Delivery of agreed AH non-lead assets volumes	PCD	Deliver agreed volumes for non-lead assets	Delivered an increase in non-lead PCD volumes. On track for the year 5 output.	
[redacted] site redevelopment	Deliver a Final Options Selection Report (FOSR) and Re-opener submission	PCD	PCD Complete	50% of the PCD competed in Feb 24' with FOSR submission being made on time. 50% of PCD completed in October 24' with cost submission being made on time / in agreement with the directed license date agreed with Ofgem.	
[redacted] subsidence	Delivery of Re-opener submission	PCD	PCD Complete	No change since FY24 RRP	

Table 5: Output Summary Table: Maintaining a safe and resilient network

General safety

The safety, health and wellbeing of our workforce, supply chain partners, the public and our assets is an integral part of National Gas Transmission and a top priority within our overall strategy.

We aspire to lead the way in safety performance with our ambition to be safe every day. This ambition sets the strategic direction for our plans and supports progression to a proactive safety culture.

There are four key focus areas that remain constant throughout our ambition:

- **Keeping our assets and processes safe every day**
- **Demonstrating safe behaviours every day**
- **Supporting health and wellbeing every day**
- **Improving safety every day**

Safety performance

NGT has now concluded the next year of its safety ambition with positive safety performance being demonstrated.

Our Lost Time Injury Frequency Rate (LTIFR) is industry leading and reflects our commitment to a safe workplace. At the end of 2024/25 our LTIFR was 0.02 (per 100,000 hours). This performance is ahead of the business stretch target (<0.1) and is comparable to our 2023/24 performance.

The reporting of High Potential Controllable Events (HPCEs) is encouraged to maximise learning and ensure continuous improvement. At the end of 2024/25 there were nine HPCEs that were reported and investigated with remedial actions put in place.

No tier one or two process safety events occurred within the year, and there were no public safety injuries.

We have continued with our programme of Executive Safety Health and Environment Leadership visits. 100% of our targeted visits were completed, allowing increased visibility across sites and providing enhanced opportunities for two-way communication. This leadership programme measure has now been re-set in preparation for 2025/26 delivery.

The investigations reported into our Incident Management System (IMS) have been quality assessed at 66%, the remaining 34% were reviewed and given actions for further improvement before being approved. 78% of all actions were closed on time, there are several improvements being made to improve this score in future, we have onboarded an additional investigation specialist and we are currently revising training and templates.

Continual improvement

To ensure we continue to maintain and improve on this safety performance, we have driven legislative compliance through value-protect activities and continually improved operations with value-add activities.

Key safety highlights delivered in 2024/25

We launched the National Gas seven deadly risks campaign.

These seven areas highlight core hazards that the organisation faces, which, if not managed appropriately,, could result in significant harm. Awareness of all seven risks has been promoted across the organisation and focus will continue into FY2025/26.

We delivered the bi-annual safety survey to support cultural assessment and ongoing behavioural improvements.

The overall engagement rate for the survey was 76%, a 9% increase compared to 2022. The overall culture assessment was 6.83, compared to an assessment of 6.47 in 2022. This assessment score places us at the upper end of the 'calculative' stage in the Hudson Model indicating that we are no longer simply relying on our Safety Management System, but are moving towards proactive engagement.

We supported the HSE in their ambition to reduce work-related ill health within the workplace.

The HSE has selected NGT to be involved in their three-year programme to define and deliver initiatives as well as inspire others.

We resolved the TD/1 (pipeline) Affirmation Reports backlog.

The process is now operating as a BAU activity.

We Improved the Incident Management System including the signposting of mental health services.

We re-focused the Process Safety Performance group, which has driven data improvements and allowed director-level focus on any potential areas for improvement.

Network Asset Risk Metric (NARM)

For RIIO-T2, the Network Asset Risk Metric (NARM) builds on the progress made in RIIO-T1 and is using Monetised Risk as the primary measure.

Ofgem uses this measure for defining outputs and setting allowances associated with our asset management activities. In RIIO-T2 we have outputs defined using the Long-Term Monetised Risk measures. This is a Monetised Risk measure over a defined period of time greater than one year from a given start date and equal to the cumulative Single-Year Monetised Risk values over the defined period.

Network asset risk relates to the consequence of failure of a network asset and the probability of a failure occurring. If we do not maintain, replace, or refurbish assets, the probability of them failing will generally increase over time, and so would the risk of the failure materialising. To keep network asset risk within reasonable bounds, we are funded to carry out asset management activities such as replacement or refurbishment.

The NARM has been developed to allow Ofgem to quantify the benefit to consumers of our asset management activities and hold us accountable for our investment decisions.

In 2024/25 we have delivered a further R£71.9m in Long-Term Risk Benefit (LTRB) in NARM outputs (A1 Unique Identifiers (UIDs)) subject to work being completed between now and the final RRP NARM submission. With this, alongside previous year's cumulative delivery of R£84.1m, it takes the total LTRB delivered in RIIO-T2 so far to R£156.1m against the target of R£200.8m.

We will use the LTRB delivered in 2024/25 to provide the revised forecast in the NARMs RRP submission.

This year, we had the return of the last asset health uncertainty mechanism - Plant and Equipment. Using the updated volumes, the LTRB target will be restated using the same original methodology.

Image: **Aberdeen compressor station**

Exit capacity

The annual exit capacity process is run according to the Exit Capacity Planning Guidance (ECPG), introduced as part of RIIO-T2. The aim of this guidance is to ensure that Flat and Flex capacity bookings, as well as Assured Offtake Pressure (AOP) requests are booked as efficiently as possible given the removal of the incentive arrangements on the Gas Distribution Networks (GDNs). The ECPG process also aims to maintain transparency and increase our engagement with the GDN's. The ECPG outlines the methodology, engagement and reporting requirements of this process. Exit capacity bookings for the first three years (Y+1 to Y+3) have not fallen as much as the 2024 Future Energy Scenario (FES) Counterfactual scenario, and two offtakes have a very small increase, rising above baseline capacity. Overall, Y+1 remains similar to previous bookings with later years seeing increasing reductions as the GDNs continue to use Annual capacity bookings and UNC processes to signal their requirements. Several AOP change requests were initially made, most of which were removed by GDNs themselves in their final submissions. Given the increased engagement with the GDNs, it was possible to negotiate AOPs, where required, in a manner which avoided any unnecessary investment yet allowing efficient operation of networks and therefore was to the financial benefit of customers and ultimately consumers. We provided the outcome of the ECPG process in the 2024 Exit Capacity Allocation Report to Ofgem, as well as a redacted version which was made publicly available on our website in October 2024. This was followed by the accompanying Exit Capacity Assessment Methodology which was published in January 2025 post consultation with GDNs in December 2024. This was in line with the ECPG licence conditions. The GDN's also published equivalent documents in line with their ECPG obligations.

Image: Peterborough compressor station

Non-lead asset health

The majority of our asset health plan is covered by NARM. Work that is necessary to maintain the safety and reliability of the network, and outputs are measured in Long Term Risk Benefit (LTRB).

The non-lead asset interventions associated with fences, gates, roads, pathways and pipe supports are being considered alongside similar NARM assets requiring intervention within the National Above Ground Installation (AGI) Renovation Campaign (NARC). In this manner, bundling efficiency and timely intervention is best achieved.

The strategic planning from earlier in the price control has allowed us to deliver a significant increase in volumes in 2023/24 and 2024/25. In addition, the transition from relying solely on external contractors to a blend of internal and external execution through our Operations and National Gas Services teams, together with third party Maximum Withdrawal Capacity (MWCs); e.g. a gas storage operator or interconnector operator, has yielded invaluable benefits. These include enhanced project control, improved efficiency and a higher volume of successfully completed interventions. This strategic approach not only accelerated our delivery in Year 3 (2023/24) and Year 4 (2024/25), but also enabled us to clearly define our delivery objectives for Year 5 (2025/26).

For the Cabs and Compressor sub theme assets, we have undertaken physical delivery of works and claimed a total of 11 volume outputs at [redacted]

[redacted]

In addition to the infrastructure works already delivered, we have developed the Cab Infrastructure scope for [redacted] for delivery in 2025/26.

For the Structural Integrity assets, 525 PCD non-lead Civils volumes have been delivered in 2024/25. This is an increase from 443 volumes delivered in 2023/24. Various Structural Integrity interventions including pipe supports, plinths and fences were delivered across 43 sites, with 262 interventions planned for 2025/26.

The larger and more complex lighting projects were delivered within the main electrical campaign in 2024/25. We have delivered and claimed 16 lighting Non-Lead Asset volumes associated with the electrical sub theme. Less complex lighting volumes are in delivery with our operational teams since this provides greater value. The overall delivery of lighting Non-Lead Asset volumes is on target but the mix of intervention UIDs differs from the business plan expectations.

For non-lead asset health there are 33 intervention types, called unique identifiers (UIDs), across five asset sub themes. Of the 33 intervention types, 18 have received baseline funding and have price control deliverables (PCD) with volume targets. These 18 UIDs cover the following five areas:

- **Security fences and gates**
- **Pipe supports**
- **Access roads and paths**
- **Lighting**
- **Major remediation of civils at** [redacted]

Deliver an environmentally sustainable network

National Gas Transmission is at the forefront of leading a transition to clean, fair, and affordable energy. As one of our key outputs under RIIO-T2, delivering an environmentally sustainable network is important both to us and our customers. As a responsible business, we are committed to delivering environmental and community benefit, prioritising the issues that matter most to stakeholders.

This year we have made positive progress against a majority of our outputs in this priority area. We remained under our Greenhouse Gas venting target of 2,987 tonnes of emissions in 2024/25 at 2,018 and decreased our business mileage by 52% from 1608 to 776 tCO2e (tonnes of CO2 equivalents).

We have experienced some challenges delivering our redundant asset commitments due to the needs case changing and/or restrictions on the network. This chapter provides further detail on how we have performed against specific deliverables that sit within the ‘Deliver an environmentally sustainable’ theme.

Image: St Fergus gas terminal

Output summary table

Our output	Description	Output type	2024/25 target	2024/25 performance	2024/25 financial incentive/penalty (£m, 18/19 price base)	RIIO-T2 forecast – financial incentive/penalty (£m, 18/19 price base, total forecast incentive revenue for remainder of RIIO- T2)	RAG status
Greenhouse gas emissions (venting)	Meet greenhouse gas emissions venting targets	ODI-F	< 2,897 tonnes of emissions 2024/25	1,982 tonnes of emissions 2024/25	£1.5m	£0.73m	
NTS shrinkage	Meet our targets for the amount and the cost of the energy we use to run the network	ODI-R	N/A for 2024/25	2782 GWh (previous year's outturn was 3090 GWh) Total NTS shrinkage costs for 2024/25 were £96.5m, including £69.7m for gas (including third party revenues and meter reconciliation revenues), £24.1m for electricity and £2.6m for emissions. Costs were around £11m lower compared to 2023/24.	N/A - Reputational	N/A - Reputational	
Annual environmental report	Publish an Annual Environmental Report	LO	Publish October 2024	Published October 2024	N/A - Reputational	N/A - Reputational	
Deliver our baseline environmental incentive targets	Reduce operational transport emissions	ODI-F	26% reduction against baseline 1,748 tCO2e	There was an 8% increase of operational transport emissions compared to baseline levels 1748 tCO2e	£0.11m	£0.09m	
	Reduce business mileage emissions	ODI-F	10% reduction against baseline 1,608 tCO2e	52% decrease of business mileage emissions to 776 tCO2e			
	Reduce office and operational waste recycling	ODI-F	61% reduction of office and operational waste recycling to achieve benefit threshold	50% of waste was recycled			
	Reduce office waste	ODI-F	10% reduction against baseline 54.60 tonnes of waste	58.9% reduction of office waste			
	Reduce office water use	ODI-F	10% reduction against baseline 7,380 m^3 of office water	64.1% decrease of office water usage to 2648m^3			
	Increase the environmental value of non-operational land	ODI-F	3.15% increase of natural capital valuation against baseline £32.92m	3.4% increase of natural capital valuation			
	Increase the biodiversity net gain on new network projects	ODI-F	NA	Not triggered in 2024/2025			
Redundant assets	Decommission 85 outputs, out of which there are five customer sites and four compressors	PCD	Delivery date March 2026	16 Redundant asset outputs delivered. 11 no longer progressing due to changes in customer requirements or site circumstances. Seven outputs currently experiencing delays, with a risk that some may extend into the RIIO-GT3 period. The remaining 50 outputs on track for delivery by end of year five.	N/A	N/A	
Incremental capacity	Needs case submission and FIOC Project Direction submission (Re-opener allowance request) for in-flight [redacted]	Re-opener	Need case submission in Jun 2021. FIOC Project Direction sub May 2023. Consultation response July 2024. Customer terminated PARCA in 2024 and original project no longer prepressing via this UM. RIIO-GT3 BP re-submitted the West Import Resilience Project which is a combination of baseline and UM funded requests.	Need Case submission in June 2021. FIOC Project Direction sub May 2023. Consultation response July 2024. Customer terminated PARCA in 2024 and original project no longer prepressing via this UM. RIIO-GT3 BP re-submitted the West Import Resilience Project which is a combination of Baseline and UM funded requests.	N/A	N/A	
Compressor emissions - [redacted]	Deliver a Final Options Selection Report, long lead items and re-opener submission for [redacted]	PCD	On track for end of RIIO-T2.	50% of the PCD delivered in August 2022 with FOSR submission, Remaining 50% of the PCD due in December 2025 with reopener cost submission - on track	N/A	N/A	
Compressor emissions - [redacted]	Deliver a Final Options Selection Report, long lead items, and re-opener submission for [redacted]	PCD	Completed	50% of the PCD delivered in January 2023 with FOSR submission. 50% of the PCD delivered in April 2025 with cost reopener submission.	N/A	N/A	
Compressor emissions - [redacted]	Deliver a Final Options Selection Report, long lead items and re-opener submission for [redacted]	PCD	Completed	50% of the PCD delivered in January 2023 with FOSR submission. 50% of the PCD delivered in June 2025 with reopener cost submission	N/A	N/A	
Compressor emissions - [redacted]	Deliver a Final Options Selection Report, long lead items and re-opener submission for [redacted]	PCD	On Track for end of RIIO-T2.	50% of the PCD Completed in January 2023 with FOSR submission. Remaining 50% of the PCD due in December 2025 with reopener cost submission - on track	N/A	N/A	
[redacted]	Deliver emissions compliance at Hatton with a new unit scoped and procured to deliver 41MW mechanical output power	PCD	Complete Noise Enclosure Cladding. Complete Local Equipment Rooms (LERs). Drainage & Draw pit installation. Complete all equipment Foundations. Complete all small bore piping & snagging works.. Continue mechanical, electrical, instrumentations & piping works. Complete cold & hot commissioning works.	Project experienced programme slippage and is expected to gain operational acceptance in September 2025 with asset acceptance being achieved in January 2026.	N/A	N/A	

Environmental action plan (EAP)

We aim to reduce the impact our operations have on the environment, whilst delivering positive benefits for the communities we serve. For RIIO-T2 we developed an EAP containing 30 commitments aligned to five pillars:

Air quality

We will work to reduce our nitrous oxides emissions by the end of RIIO-T2, including replacing some of the most polluting compressors on our network with cleaner technologies, improving local air quality.

Our climate

We will develop a science-based target by 2023.

Update: The Science Based Targets initiative (SBTI) has been delayed to Q1 of 2026. The development of the guidance is paused as the initiative focuses on developing the corporate and financial institutions net zero standard.

Responsible asset use

We will address 85 redundant assets, asset groups or sites, supporting a sustainable lower carbon future through responsible demolition including asset repurposing.

Caring for the natural environment

We'll make sure new construction and demolition projects include initiatives to protect and promote biodiversity, and we will enhance the value of natural assets on non-operational land.

Leadership for change

We will embed sustainability in our decision making, be transparent on our progress, and work with industry to drive forward the sustainability agenda.

Figure 18: Our five pillars aligned to our 30 EAP commitments

Deliver an environmentally sustainable network continued

Pillar	Performance highlights for each of the five pillars
Air quality	NOx intensity measure of kilograms per hours (kg/h) have fallen from 5.42 to 4.74kg/h which equates to a 12.5% reduction due to the relative increased utilisation of BAT units (newer, cleaner units). There has been a reduction in run hours across the network, 15.9%, but a greater proportion of the hours have been VSD (Variable Speed Drive) running 27.5% to 32.8%.
Our climate commitment	We have successfully delivered a SBTI corporate standard version 1.1 aligned net zero target for scope 1 and 2 emissions which achieved board approval in December 2023. We also conducted a partial scope 3 footprinting exercise and continue to develop in this area. National Gas Transmission has committed to achieving net zero by 2050 for scope 1 and 2 emissions but also maintains an ambition to achieve this earlier, by 2040. We are now embedding our Net Zero by 2050 commitment across the business, verifying our strategy, aligning future investments and operational practices to support delivery of our commitment. A key component to delivering the net zero commitment is reducing methane emissions from our operations. NGT submitted a funding request to support methane emissions reduction in October and November 2023. We received the outcome of our re-opener request, the Methane Emissions Reduction Campaign (MERC) in March 2024, securing £19.4m in funding. The three themes of the MERC submission are in delivery. In the year since funding award • Year one of the expanded fugitive emission detection and repair (LDAR) programme has been completed. • A tender event has been undertaken to appoint a main works contractor to deliver the compressor machinery train (CMT) theme vent reduction trials. • An order has been placed for new pipeline recompression capability.
Responsible asset use	We are on track to deliver the target as summarised below: • [redacted] – Decommission AGI flow control valve and control cabinet, water bath heater control panel • [redacted] Decommission the following assets: i) Ex odourant area, methanol tank, ii) Transmission boilers in boiler house adjacent to control room, (iii) Dewscope huts including the GRP huts and concrete foundation plinths Eni water pipeline. • [redacted] – Decommission Compressor control building, including office, workshop, former substation and generator buildings, instrumentation kiosk, remove and dispose of valves V28 & 29 • [redacted] – Decommission site back to greenfield status. We have taken opportunities to minimise waste by reusing assets, this includes refurbishment of assets and the recovery of grey spares for reuse within the business
Caring for the natural environment	[redacted] continues to form a mainstay of the programme with numbers of participants growing year-on-year through the additional resources provided by National Gas. This has allowed thousands of children from inner city London (and elsewhere) to access nature and learn about protecting the environment. Positive woodland management, diversification and creation has been commissioned by National Gas at the [redacted] Station. Over time this is seeing areas of pine plantation replaced with mixed woodland that provides more opportunities for a wide range of flora and fauna. Habitat creation and proactive management for biodiversity has been delivered since Year 1 at the [redacted] Compressor Station. This work has seen environmental enhancements including the creation of hedgerow, the enhancement of woodland and diversification of grassland flora, all being delivered by the Trust for Conservation Volunteers (TCV). This means that both biodiversity and members of the public benefit through this positive intervention. Our major construction project at [redacted] has measured the Biodiversity Net Gain loss of the project and enhancement units required to reach a 10% net gain. Plans have been developed and NGT are in discussions with external providers if the BNG units could not be fully delivered on site, following completion of the project
Leadership for change	Currently more than 75% of our top 50 suppliers have carbon reduction plans in place and moving into RIIO-GT3 this reporting will gradually widen to all suppliers with spend over £250,000. Our Supplier Code of Conduct (SCOC) sets out our minimum standard of expectations for our supply chain in supporting National Gas to make a positive impact on environmental factors linked to our operations. All suppliers of National Gas are required to comply with our SCOC, which sets out our expectations, values and principles as a responsible business and covers a broad range of requirements from people, communities, environment, and governance. The SCOC is available on our website, embedded within National Gas Standard Terms & Conditions and into our tender processes. Therefore, by accepting a Purchase Order from National Gas, suppliers in turn accept our SCOC. As part of tender processes, suppliers also receive a copy of our 'NGT Environment Sustainability Policy'. In addition to the SCOC we are making good progress with embedding ISO20400 sustainable procurement principles in our procurement processes. In 2024/25, a full ISO20400 self-assessment has taken place; National Gas is performing strongly in areas such as Fundamentals, Governance and Integrating Sustainability including strong commitments from top management, clear procurement objectives and reporting metrics, investment in training and guidance across supply chain (both internally and externally). A detailed action plan is in place for 2025 focused on internal and external communication of the National Gas strategy. With respect to our ESG framework and following on from our materiality assessment in 2023/24, a double materiality assessment was undertaken in this reporting period. A double materiality assessment broadens the concept of materiality from a focus on financial materiality and how the business is impacted by sustainability topics ('outside in'), to one that includes a view of the business' impact on the environment, stakeholders and society ('inside out'). Fourteen ESG topics considered to be material to National Gas were identified using European Sustainability Reporting Standards categories. Working with subject matter experts across the business, key internal and external stakeholders were identified and invited to complete the double materiality assessment survey, scoring each topic from 0-5 for both financial ('outside in') and impact ('inside out') importance. 80 internal and 30 external responses were received. Topics considered critical by responders included Security (cyber and physical) and Safety Health and Wellbeing. Core topics included Stakeholder Management, Business Ethics, Climate Change and Pollution. Peripheral and immaterial topics included Waste and Water. We are amending our ESG framework and metrics in light of the findings.

Table 7: Performance highlights for each of the five pillars

Deliver an environmentally sustainable network continued

Our EAP sets out how we intend to take forward specific actions relating to the environment. It also includes stretching targets that go above our Licence obligations. As such it was recognised that there was value for consumers and wider society in incentivising some of these.

Table 8 summarises our 2024/25 performance against those incentivised areas[4].

Environmental incentive	Baseline levels	Benefit threshold	Penalty threshold	2024/25 level	% difference 2024/25 level to baseline level	RAG
Operational transport emissions (tCO2e) (% change)	1748	-26% (1293.52)	'-6%(1.643.12)	1,896 (Operational Fleet including electric vehicles)	8%	
Business mileage (tCO2e) (% change)	1,608 (2019/20)	-10% (1,447.2)	-6% (1,511.52)	776	-52%	
Percentage of operational and office waste recycled (value)	-------	61%	53%	50%	N/A	
Office waste generated in tonnes (% change)	54.60t (2019/20)	-10% (49.14)	-6% (51.32)	22.43t	-58.9%	
Office Water use in m^3 (% change)	7,380m^3 (2019/20)	-10% (6,642)	-6% (6,937)	2,648m^3	-64.1%	
Environmental value of non-operational land (£m) (% change)	32.92 (2020/21)	3.15%	1.35%	£1.1M increment	3.4%	
Biodiversity Net Gain (BNG) on projects affecting the local environment	All years in RIIO-T2	Reward if a project achieves 15% or more BNG	Penalty if a project achieves 5% or less BNG	Not activated	N/A	

Table 8: 2024/25 Environmental Incentive Performance

Operational transport

Our operational transport emissions penalty threshold for 2024/25 is set at 1,643 tCO2e, or 6% reduction from baseline. The 2024/25 reward threshold was 1,294 tCO2e, or 26% reduction from baseline. With 1,895.6 tCO2e emitted for 2024/25, operational transport emission reductions from baseline were not achieved and NGT has exceeded the penalty threshold.

The commercial vehicle orders from 2024 are now due for conversion in May / June with deliveries expected in July. Over the four years to date of the price control we have spent £4.3m. We anticipate that over the remaining year of the price control spend will be in line with our RIIO-T2 allowances.

Future RIIO-T2 plans still include increasing Electric Vehicle use across all business mileage options and installation of electric charging points. There has been an increase in our EV charging infrastructure this year, moving from 10 chargers to 21. This is mainly due to the seven installations at the Nottingham construction site, as well as Metering and NGS Birmingham.

Business mileage

Our business mileage emissions baseline is set at 1,608 tCO2e. To achieve the benefit threshold, a 10% reduction from baseline to 1,447.2 tCO2e is needed. Results for 2024/25 were 776 tCO2e, which represents a 52% reduction from baseline., meaning we achieved the benefit target.

A reduction in business mileage was largely due to reduced air travel and business mileage reduction plans include revising company car and hire car lists to ensure hybrid or EVs are the only options. Reducing personal usage of cars by the promotion of car sharing or using virtual meeting tools, offering alternative meeting spaces which support travelling by public transport.

Office waste

The combined office and operational waste recycled for 2024/25 was 50%. This is below the penalty threshold target of 53%. The total office waste generated in tonnes was 22.43t for 2024/25 which exceeded the benefit threshold target of producing 49.14t or below.

Future office waste reduction plans include a campaign to raise awareness of recycling facilities and extending the service to include a food recycling scheme.

Office water

Water use for 2024/25 was 2,648 m^3. This exceeded our benefit threshold target of 6,642 m^3, this exceedance is despite the addition of data for Warrington archives being reported. The contributing factor to the reduction is that office occupancy is still below the pre-pandemic baseline year. We will continue to monitor this and implement further plans as required.

[4] Please note that with some recent improvements to our methodologies, we have revised PY figures relating to waste.

Deliver an environmentally sustainable network continued

Environmental value

In 2024/25, a 3.4% increase in natural capital valuation was achieved, contributing towards our target to obtain a 10% increase in environmental value by the end of RIIO-T2. This exceeded the benefit threshold target which was set at 3.15%.

The Environmental Gain programme is in its fourth year (of five) and has over this period delivered a range of environmental enhancements targeting both biodiversity and the health and social wellbeing of members of the public (particularly school children) through the delivery of environmental education.

Habitat creation and proactive management for biodiversity has been delivered since Year 1 at the Aylesbury Woodham Gas Compressor Station. This work has seen environmental enhancements including the creation of hedgerow, the enhancement of woodland and diversification of grassland flora, all being delivered by the Trust for Conservation Volunteers (TCV). This means that both biodiversity and members of the public benefit through this positive intervention.

Environmental education at the [redacted] continues to form a mainstay of the programme with numbers of participants growing year-on-year through the additional resources provided by National Gas. This has allowed thousands of children from inner city London (and elsewhere) to access nature and learn about protecting the environment.

Positive woodland management, diversification and creation has been commissioned by National Gas at the [redacted]. Over time this is seeing areas of pine plantation replaced with mixed woodland that provides more opportunities for a wide range of flora and fauna. Given the isolated nature of the Site, this work is delivered through contractors as opposed to volunteers. However, this provides the opportunity to deliver types of management for which volunteers are not trained or equipped.

Lastly, and for year four of the programme, TCV have again been championed to take on habitat creation, enhancement and management at two compressor stations. At the [redacted] volunteers will help to manage habitats such as woodland, scrub and grassland to increase the diversity of flora and structure of habitats, thereby providing a wide range of niches for a range of species including reptiles, birds, bats and invertebrates.

Image: **Aberdeen compressor station**

Greenhouse gas (GHG) emissions

The aim of the GHG emissions scheme is to incentivise us to reduce the amount of natural gas vented from our compressors (primarily methane) and reduce the effect our operational activities have on the environment. This is important to our customers, stakeholders, ourselves and society in general.

For 2024/25 the price attributed to the GHG emissions scheme was £2,635 per tonne of natural gas vented, this is an increase of £216 or 9% from 2023/24.

The need to operate an individual compressor on any given day is dependent upon several variables, including the sources of supply and demand, the prevailing network conditions, and the need to accommodate maintenance and construction plans.

The total amount of natural gas vented from compressors in 2024/25 was 2,018 tonnes, with 36 tonnes being site vents which are not part of the financial incentive. This is a 13% decrease from 2023/24 when venting totalled 2,325 tonnes.

The average annual venting through compressors excluding site vents in the last 10-year period including 2024/25 is 2,671 tonnes, with the maximum venting being 3,928 tonnes (2017/18) and the minimum being 1982 tonnes, which is the current reporting year (2024/25).

To support this year's emissions identification and reduction efforts, we have continued to embed initiatives from previous years. Key achievements this year include:

- Proactive Compressor Management: Leveraging supply and demand forecasts to anticipate future flow requirements which has enabled earlier compressor depressurisation decisions. This proactive approach, combined with reduced running hours and fewer active units, resulted in a 21% (132 tonnes) reduction in unit static seal losses.
- Enhanced System Control: A combination of reduced operational requirements and previous upgrades to system control panels has contributed to a decrease in emergency shutdowns and subsequent venting. Improved telemetry accuracy, enabled by these enhancements, and reduced operation resulted in a 16% (60 tonnes) reduction in emergency shutdowns.
- Optimised Engine Inhibition: In summer 2024, we continued with our approach to compressor unit inhibition. This process temporarily isolates compressor units identified as unlikely to be needed during the summer, this isolation reduces periodic testing and subsequent venting. Seven gas units across three sites were inhibited this summer, saving approximately 88 tonnes of venting.
- Strategic Maintenance & Winter Readiness: We continue to align compressor maintenance policy jobs with emission testing wherever possible. Additionally, we have prioritised testing of critical units only for winter assurance preparedness tests, further contributing to venting reductions saving approximately 55 tonnes of venting.

The GHG venting allowance is set each year by Ofgem under our RIIO-T2 Licence. The allowance for 2024/25 was 2,897 tonnes. For each tonne of natural gas vented over or under this allowance a price is levied. Should we vent more than 2,897 tonnes we are subject to a charge and for each tonne under this allowance, a revenue under the incentive scheme.

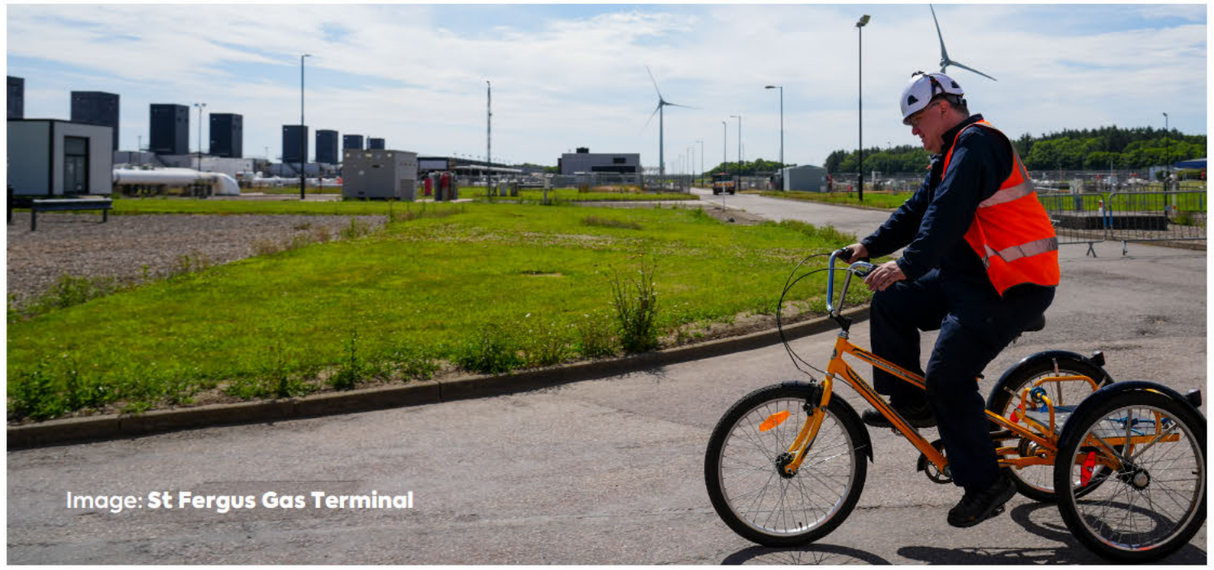


Image: **St Fergus Gas Terminal**

In 2024/25 4 new Gas Compressor units across two sites, [redacted] were added to the network to comply with Medium Combustion Plant (MCP) Regulations.

The GHG emissions calculation methodology for calculating the mass of natural gas vented in 2023/24 was verified by an Independent Examiner; by visiting [redacted] compressor station and this was submitted to the Authority in July 2024. In accordance with our Licence an external independent audit will be carried out again this year for 2024/25 emissions and will be submitted to the Authority by 31 July 2025.

Please note: The GHG incentive applicable venting reference price is in the 2024/25 price base.

Shrinkage

At National Gas, we are responsible for managing the procurement of energy and emissions for National Transmission System (NTS) Shrinkage, in our role as NTS Shrinkage Provider.

These costs are recharged back to users as part of general non-transmission charges. A reputational incentive is in place for NTS Shrinkage for RIIO-T2. Under the scheme, from 2022/23 onwards, annual gas procurement costs are compared to benchmark costs, which are based on benchmark and actual volumes and market prices.

Total NTS shrinkage costs for 2024/25 were £96.5m, including £69.7m for gas (including third party revenues and meter reconciliation revenues), £24.1m for electricity and £2.6m for emissions. Costs were around £11m lower compared to 2023/24.

Gas procurement costs (not including third party revenues), which are the costs of trades and gas imbalance cashout for the year, were £68.4m. This is similar to (slightly higher than) the average cost benchmark for the year, which is calculated according to the published methodology and based on benchmark and actual volumes and average market prices, of £67.0m. Although the average cost benchmark uses the same net daily volumes as for actual procurement, it uses published volumes for forward procurement based on forecasts at the time of publication, while the actual forward procurement profile is different as it is based on updated forecasts, which in general leads to a difference between the benchmark and actual cost.

For gas shrinkage for 2024/25, we procured our forecast requirement utilising forward and prompt markets. We continued to review our trading strategy to manage the price risk for consumers, as geopolitical factors continued to impact gas markets. We spread procurement between trades ahead of the month, as seasons, quarters, and month products, and trades closer to and on the day. Market prices fell in the months ahead of 2024/25, for example the Summer 2024 product falling from around £1.20/th in early November 2023 to around 70p/th in late March 2024. During 2024/25, prices saw substantial variation, with Winter 2024/25 rising from around 80p/th in early April to over £1.10/th in mid-August, then falling to around 95p/th in mid-September.

NTS Shrinkage gas includes Own Use Gas (OUG, for compressor use), Calorific Value (CV) Shrinkage (gas that cannot be billed), and Unaccounted for Gas (UAG, the remaining quantity of gas after considering measured inputs and outputs to the system). The overall volume of NTS Shrinkage gas was 2782 GWh in 2024/25. This is 10% lower than the 2023/24 outturn of 3090 GWh.

The volume reduction was due to a decrease in OUG and CVS outweighing a small increase in UAG.

The volume of OUG decreased from 1,040 GWh in 2023/24 to 809 GWh in 2024/25 which correlates with the reduction in compressor running hours while electricity consumption for electric compressor units decreased from 151 GWh to 134 GWh. Compressor use is primarily driven by the supply/demand patterns presented by the market.

CV shrinkage volume remained the smallest component of overall gas shrinkage and decreased from 443 GWh in 2023/24 to 257 GWh in 2024/25. This continued to be driven by CV capping, particularly in the North-East and Northern Local Distribution Zones, where gas of different calorific values (energy contents) from different entry points converged, and some energy associated with the gas of higher calorific value could not be billed.

The UAG volume increased from 1,607 GWh in 2023/24 to 1,715 GWh in 2024/25. This is pre-reconciliation UAG, which includes some energy that is reconciled to particular users after close-out. The annual UAG volume for 2024/25 was 0.2% of the annual NTS throughput and remains significantly below the meter error tolerance standard of 1.1% in energy terms. More details on UAG and CVS volumes are given in Unaccounted for Gas and Calorific Value Shrinkage Report, published in May 2025.

Year-on-year, our trading activity reduced by 20%, with 1,040 trades completed for 2024/25, compared to 1,291 trades for 2023/24. However, activity remained above pre-2022/23 levels, compared to 890 trades completed for 2021/22, and an average of 555 per year over RIIO-T1. Reduced market prices meant that the weighted average price of these trades fell to 92 p/th for 2024/25, from 130 p/th for 2023/24.

Electricity costs were similar, and emissions costs were reduced year-on-year and remain a small percentage of overall costs.

Shrinkage costs for 2025/26 are forecast to be similar to 2024/25, though uncertainty remains in terms of both volumes and prices. As of early April, forecast costs for 2025/26 were £137m in 2024/25 price base.

Image: **Churchover compressor station**

Redundant assets

As the requirements on the National Transmission System (NTS) change, there are assets on the network that are no longer required by National Gas or our customers to operate the network. These are defined as redundant assets. If these assets remain on the network for longer than required then they represent an ongoing maintenance commitment and operational cost, as well as having the potential to cause a detrimental impact to the environment.

Through the development of our RIIO-T2 business plan we identified and agreed 85 scopes of work that were classified as redundant in the RIIO-T1 period. These are the outputs in the Redundant Assets PCD annex. Of these outputs, 84 were to be assessed at the close of the RIIO-T2 price control with one to be assessed at the close of the next price control.

In the first year 2021/2022, we physically completed the following outputs:

- Feeder 6 - Disconnect and decommission from [redacted] (Billingham) (Fully delivered).
- [redacted] AGI – Decommission site (Fully delivered with alternative specification).
- [redacted] – Decommission flow control valve and control cabinet (fully delivered).
- [redacted] – Decommission Units A and B to plinth level to meet IED compliance [This output is not being assessed as part of RIIO-T2 close-out, as £1.940m has been allocated for RIIO-GT3 to fully deliver this output.] (Unit A decommissioned to plinth level to meet IED compliance).
- [redacted] disconnection (Fully delivered, one of five disconnections which comprise this output in the PCD table).

[redacted] has now been removed from the financial asset register; however, the other outputs are still in the closeout stage which involves removing them from the regulatory asset base.

We have physically delivered the following in 2022/23:

- [redacted] AGI asset – Decommission the following assets: 350mm Portable Pig Trap connection arrangement; 20m of above ground 250mm pipeline; 5m of 100mm bypass pipework; 2x 350mm valves (Fully delivered).
- [redacted] Offtake AGI asset – Decommission circa. 35m of above ground pipework on the AGI and circa. 30m of below ground pipework to the boundary of the AGI. (Fully delivered).
- [redacted] – Removal of one of the 750mm/30" river crossings, including block valves. Pipethrough of mainline valves. Decommission the duplicate feeder including valve arrangements. (Fully delivered).
- [redacted] – Removal of one 600mm/24" river crossing, including block valves. Pipethrough of mainline valves and decommission the duplicate feeder, including valve arrangements. (Fully delivered).
- [redacted] – Decommission methanol tanks, bund and filling station. (Fully delivered).

In 2022/23, as a stand-alone gas transmission business, we identified further potential efficiencies such as in-sourcing design works via the recruitment of a specialist conceptual design engineer. This, additionally, gives us increased control over the design process. The ability to deliver some of the design work in-house will potentially result in cost savings against regulatory allowances on some outputs across the price control.

In 2023/2024, we have physically delivered the following outputs:

- [redacted] – Decommission Unit A & pressure reduction area for Units A & B (fully delivered).
- [redacted] – Decommission Unit B (fully delivered)
- [redacted] – Disconnect pipeline and nitrogen fill (fully delivered)
- [redacted] – Decommission (partially elivered)
- [redacted] – Decommission buried condensate vessel and a 36" valve and dome end (partially delivered)
- [redacted] – Decommission disused gas analyser (not delivered[5])

In 2024/2025, we have physically delivered the following outputs:

- [redacted] valve and control cabinet (fully delivered)
- [redacted] – Decommission water bath heater control panel (fully delivered)
- [redacted] – Decommission the following assets (partially delivered):
  - Ex odourant area, methanol tank
  - Transmission boilers in boiler house adjacent to control room.

[5] This asset was removed and replaced as opposed to decommissioned, as such this was delivered but we are not claiming it as an output.

Deliver an environmentally sustainable network continued

- [redacted] huts including the GRP huts and concrete foundation plinths Eni water pipeline.

- [redacted] – Remove/decommission the following assets (fully delivered):
  - Decommission Compressor control building, including office, workshop, former substation and generator buildings
  - [redacted] – Decommission instrumentation kiosk.
  - [redacted] – Remove and dispose of valves V28 & 29.
- [redacted] – Decommission site back to greenfield status.(partially delivered).

We have continued to pursue previously identified opportunities to deliver works efficiently such as bundling (contracts, similar types of work, or works in the same geographical region, with other investment themes).

Given the volume of decommissioning works which are to be completed during the RIIO-T2 price control, we have been able to engage specialist demolition contractors directly. This was formerly a subset of the decommissioning output and so the sub-contracting to a specialist would be handled by the main works contractor. This will involve additional management by NGT, however, it looks likely to result in a cost saving for the outputs which we can separate from the demolition element and tender and manage this service in-house. This new approach should also deliver savings for the gas consumer in future price controls.

In total, 23 outputs in the build stage have been physically completed to date and are pending formal completion once all closure activities are finalised.

There are seven outputs linked to the Decom 22 project which has been in delivery throughout RIIO-GT3. Works at [redacted] A and B have been physically completed. At [redacted] more asbestos than anticipated has been found in the terminal building, this has created a delay and increased costs so that we can ensure all asbestos is removed and disposed of in a safe manner.

Works to isolate and disconnect 2 [redacted] from the NTS is underway, with tendering for the subsequent demolition phase due to be prepared. Detailed design works have commenced for the decommissioning of two units each at [redacted], this will take place once the new units are fully commissioned and are operating as expected. We have completed an optioneering study to investigate ways to tackle the decommissioning of Feeder 1 and Feeder 9 [redacted] Conceptual design studies have been completed for [redacted]. Tendering for the subsequent demolition phase is underway.

This year we have started utilising Operations resources to decommission methanol tanks at [redacted], these works are largely complete. We decided to deliver these works with in-house resources due to their low scale and low complexity. Operations typically deliver business as usual activities, however, expanding their remit to deliver minor projects will ensure we are more agile and upskill our workforce enabling more work to be kept in-house going forward. This approach has enabled the works to be delivered quickly and efficiently. As a result of this success, we are also progressing the disconnection phase

Image: **Huntingdon compressor station**

of [redacted] using Operations resources.

We have been able to support our sustainability goals by identifying, recovering and redeploying a range of redundant assets for Hydrogen testing at [redacted] to facilitate our Hydrogen FutureGrid project. This recycles redundant assets which were at the end of their useful life. Recovered assets also better support testing requirements as their age profile makes them more representative of National Transmission System assets.

There is a potential risk to the delivery of the decommissioning of thirteen condensate tanks in the Redundant Assets plan, due to it being conditional upon the installation of mobile condensate connection facilities to replace the functionality of these tanks. Following the decision to decommission these tanks and replace them with a mobile solution, there was an incident on the NTS where a large volume of liquid entered via [redacted], leading to a number of compressor stations been taken offline due to their filters and scrubbers becoming overfilled. The volume of liquids entering the NTS had not been seen for a significant number of years, however, this has raised the awareness within the business that there is still a risk that these events can still occur, although on a very infrequent basis. While the mobile solution is capable of draining these liquids, there is a lead time if it needs to be transported to site and additionally it may not be sufficient to deal with a similar event where a large volume of liquid is encountered at multiple sites simultaneously.

A study is currently underway to understand the impact a similar event would have if all thirteen condensate tanks currently in the plan had been decommissioned. This will allow us to understand whether alternative interventions may be necessary to mitigate this risk at high priority sites on the network and therefore whether the condensate tank decommissioning should proceed.

Table 9 shows progress made to date against the agreed Price Control Deliverable (PCD) outputs (Redundant Assets, Compressor Decommissioning and Customer Disconnections)

Ambergate Compressor Station

PCD Output Status	Volume of Outputs
Sanctioned - Conceptual design stage	5
Sanctioned - Build stage	44.4 (44 outputs, plus 2/5 customer disconnections)
Outputs claimed	16.2
Not progressing	12.4 (12 outputs plus 2/5 customer disconnections)
Outputs delayed to RIIO-GT3	7
Total	**85**

Table 9 - PCD Output status

Innovation

In RIIO-T2, we have focussed not only on regulatory innovation, but on reinforcing our innovation culture across the business, driving innovation and efficiency into every investment and activity.

Whilst the transition of the energy system is an immediate focus, we must also ensure our transitioned network is optimised to deliver energy at the lowest cost and with the highest levels of safety.

Innovation

In RIIO-T2, we have focussed not only on regulatory innovation, but on reinforcing our innovation culture across the business, driving innovation and efficiency into every investment and activity. Whilst the transition of the energy system is an immediate focus, we must also ensure our transitioned network is optimised to deliver energy at the lowest cost and with the highest levels of safety. NGT is in a unique position, as owners and operators of the National Transmission System (NTS), to take a leading role in whole system energy thinking. We are working closely with the UK electricity and gas networks to enable future interactions across the energy networks and supporting our network connections to transition to net zero with us.

Network innovation allowance (NIA)

The NIA provides an allowance to fund small-scale, low Technology Readiness Level (TRL) projects from early research through to demonstration. During 2024/25, NGT has sanctioned a further 40 NIA projects leading to a total of 118 sanctioned projects through the RIIO-T2 period. We have progressed 36 projects into delivery this year and have now completed a total of 70 projects. Our 2024/25 spend was £6.6m and over the four years of the price control we have spent a total of £20.2m in delivering NIA projects. A total of five sanctioned projects remains under contracting discussions and are yet to commence. In Year 4, actual expenditure was £3.9 million below forecast due to delays in contracting and limited resources for initiating new projects. Year 5 forecasts have been adjusted upward to reflect the end of the RIIO-T2 period, with increased resourcing planned to support delivery. Internal expenditure exceeded the 25% NIA cap in 2021/22 due to team setup, supplier delays, and upfront RIIO-T2 costs, but has since stabilised and remained compliant in Years 2 through to 4. A placeholder line in RRP for future NIA project spend has been included to reflect anticipated use of the allowance.

Key highlights of our 2024/25 NIA projects

- **Asset design for a hydrogen network**

  This project considered typical National Transmission System (NTS) pipelines, Above Ground Installations (AGIs) and compressor station assets and assessed how they should be designed for hydrogen transmission, in-line with hydrogen specific current codes and standards. This project enabled a comparison and identification of any additional aspects of design and infrastructure required on the NTS network when repurposing from natural gas to hydrogen or developing new hydrogen NTS assets. The project was successful in the identification of the differences, and the resultant costs and risks associated with the design, construction, operation, maintenance and decommissioning of assets for hydrogen, when compared with asset design for a natural gas network.

- **HyNTS pipeline dataset - database and automated assessment**

  This project is a continuation of activities from the HyNTS pipeline dataset (SIF Discovery & Alpha) and expanded the remit to include site and compressor station assets. The database created in the Alpha phase has been updated to enable the inclusion of these additional assets and a trial has been undertaken for East Coast Hydrogen Datasets. The original proposal of using automation to enable faster assessment of the network data remains consistent in this project and working alongside our data team, Rosen will enable the database to integrate with live data systems, many of which have undergone change due to business separation.

  The project is ongoing and aims to demonstrate the processes and procedures developed to date within the HyNTS program on an example pipeline section and provide a fully populated and functional geodatabase able to support data visualization and application of assessment models. To date, records and data covering approximately 150km of pipelines and installations have been gathered from archives, digitized, extracted, processed and integrated into the geodatabase. This has refined and demonstrated the performance of the various processes developed as part of the HyNTS Dataset program.

- **Multiple Gas Detection**

  Meters are used for process measurement – to understand flows across the network and measure the gas used to power our compressors – and for fiscal measurement of flows on and off the network. Accurate metering is key to ensuring shippers are billed correctly and the system performs efficiently.

  This project involved the design and construction of a dedicated hydrogen metering skid at the FutureGrid Phase 1 facility, to test a range of metering technologies suitable for the measurement of 100% hydrogen flows, at representative transmission pressures.

- **Blending Management Systems**

  This project aims to investigate how the activities carried out by the transmission system operator may need updating to accommodate blends of hydrogen.

  The project assesses the modelling software currently used for running the network and planning maintenance and investigates the technical feasibility and resource implications associated with deploying software to upgrade or replace the existing methods.

Strategic innovation fund (SIF)

The SIF provides funding for larger scale demonstration projects and enables their development through several separate project phases – Discovery, Alpha and Beta. This competitive fund is determined by annual challenges that focus on encouraging cross-industry collaboration.

Key highlights of our 2024/25 SIF projects

Round 2

Ongoing support of two Round 2 Beta projects developing a digital twin of the whole Welsh energy transmission and distribution systems, as well as a digital twin and data sharing platform to enhance climate resilience and investment planning.

Round 3

Ongoing support for four Round 3 Alpha projects covering a range of topics including offshore energy hubs, Liquid Organic Hydrogen Carriers, hydrogen storage in depleted onshore hydrocarbon fields and the decarbonisation of the marine sector.

Cycle 1 – Round 4

Successful application and delivery of two Round 4 Discovery projects:

Digital decommissioning of large-scale equipment

As the Gas Transmission network responds to a changing energy system including the transition to net zero and changes in supply and demand, we are required to decommission our large site-based assets in certain locations. Decommissioning is a multifaceted endeavour that goes beyond the conclusion of an asset's lifespan and encompasses a complex deconstruction process. This project will implement an innovative AI tool to help National Gas manage decommissioning and drive benefits such as increasing the accuracy of cost estimation, reducing carbon emissions, identifying re-use potential and lowering the overall time taken to decommission.

Alt Pipe

As the owner of the National Transmission System (NTS), National Gas is committed to responsibly managing our redundant assets in a manner that contributes to a sustainable, lower-carbon future by decommissioning them responsibly, refurbishing for re-use where viable, or changing their purpose where possible. The Alt Pipe project will identify decommissioned elements of redundant pipework on the transmission system which are unlikely to be used for refurbishment or part of any wider repurposing of the core network and explore the potential of repurposing these for alternative uses including the storage or transmission of electrical energy, heat, fuels, water and data.

Cycle 2 – Round 4

Submitted applications of one Round 4 Discovery project investigating the benefits of moving from expensive, low frequency, manual network inspections to innovative AI assisted surveillance technologies in combination with satellite imagery and drones. Furthermore, two Round 4 Alpha project applications on Modelling Power-to-Gas (P2G) operability and hydrogen line-packing and one Round 4 Beta project application on repurposing for CO2 transmission are currently being reviewed.

HyNTS FutureGrid Programme

FutureGrid is a global world class test facility with the sole purpose of demonstrating the ability to transition our National Transmission System (NTS) to decarbonised energy. At the forefront of all the work we do, it's focusing on how we can repurpose existing assets that have been in natural gas service for many years, at the lowest cost to UK consumers. To date the programme has built the Phase 1 test facility, demonstrating the ability of a wide range of our assets to be operated with hydrogen at blends including 2%, 5%, 20% and at 100% hydrogen. These outputs have fed into the critical evidence case submitted to the Health and Safety Executive (HSE). The facility provides a platform for testing hydrogen and exploring other opportunities such as Carbon Capture, Utilisation and Storage (CCUS), of which we have several projects under consideration for demonstration on the facility. Beyond this, we are also exploring the opportunity for third parties to utilise the facility for additional testing, which provides commercialised opportunities and a return of revenue to UK consumers. The Phase 1 facility acts as a vital platform to generate key safety evidence for the NTS, at the lowest possible cost to UK consumers, by providing an efficient platform that can be developed to further suit testing needs.

Innovation continued

HyNTS deblending for transport

One such project is the HyNTS Deblending for Transport project which focuses on demonstrating a future new industry where hydrogen refuelling stations are directly connected to the gas network. This will enable them to benefit from a secure supply of low-cost, high-purity hydrogen, helping to promote the hydrogen transport sector and serve the large-scale needs of rail, bus, heavy haulage, marine and aviation sectors. Demonstration of this opportunity is vital to enabling hydrogen refuelling infrastructure and should be commenced now to align with the Industrial Cluster and Project Union activities. Construction of the deblending facilities is underway with a hydrogen refuelling station and hydrogen vehicles already live on site for trials. Demonstration of the deblending activities is due to commence at the start of 2026 with continued stakeholder engagement and the production of a commercial requirements and strategy document ongoing throughout 2025 and into 2026.

HyNTS compression

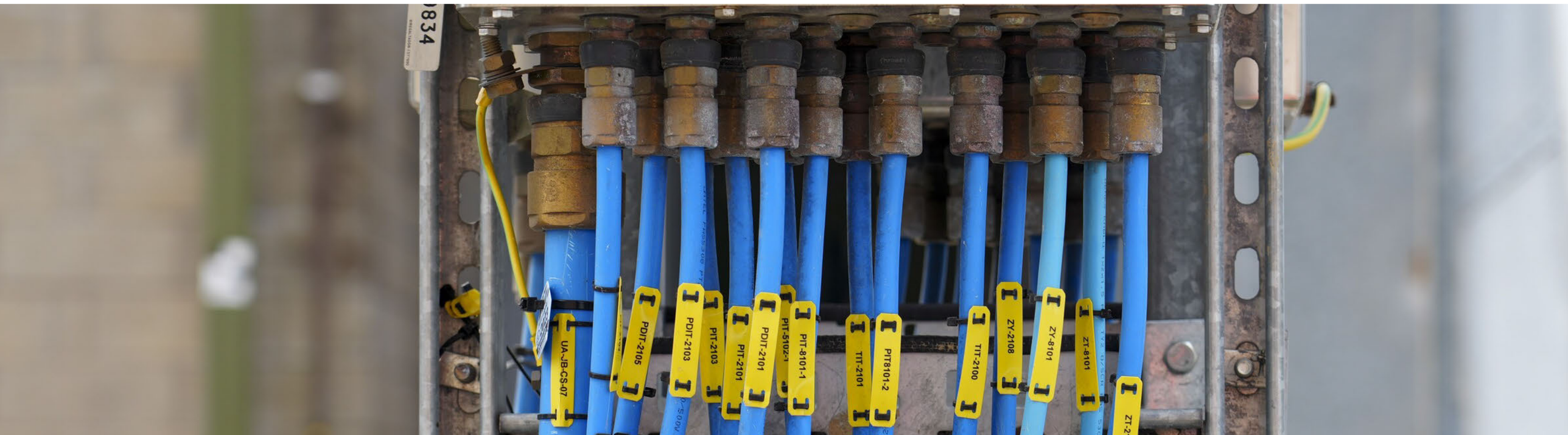
This project provides the technical and safety evidence to enable repurposing of the NTS compression assets. The project aims to determine the technical and commercial feasibility, provide a technical demonstration and create a strategy for UK NTS Compression System transition. Now in its Beta phase, the focus is on demonstration of the proposed solutions. This project will enable a reduction in the cost of the energy transition by eliminating the need to replace entire compression systems (which are one of the most expensive assets on the network), while ensuring the gas network is able to support the whole energy system. The results of this project will feed into Project Union and the wider business compression strategy.

Project Union

Project Union will create a hydrogen transmission backbone for the UK, facilitating the transport of 100% hydrogen, and ensuring a core hydrogen network is developed. Please refer to **Chapter 8. Net Zero** for further information.

SCO_2T Connect

The SCO_2T Connect project will be a crucial component in enabling the Scottish Cluster to decarbonise via Carbon Capture, Utilisation and Storage (CCUS) by combining 170 miles of repurposed assets with 35 miles of new-build pipeline, to develop Scotland's first CO_2 onshore transportation network. Pre-Front-End-Engineering-Design (FEED) activities were completed in 2024, and through UIOLI funding, a FEED Readiness project was completed in 2025. The activities for this included design, procurement and regulatory aspects. Funding for FEED studies is expected to come in the latter part of 2025. To support the SCO_2T Connect team, several of our projects are feeding into the design of the repurposed pipeline and the safety case for transporting gaseous phase carbon dioxide in our assets. The Carbon Transportation Technical Demonstration Phase 1 project carried out an all-encompassing study looking at topics including benchmarking, how carbon dioxide reacts with our NTS materials, fatigue, water ingress and corrosion. The outputs from this project and wider SCO_2T Connect work shaped the follow up projects. A carbon dryness project investigated how to keep our pipelines and assets dry and looked at the importance of maintaining the specification of carbon dioxide. Looking ahead, two projects (carbon dioxide repurposing procedure project and carbon integrity management project), aim to identify the evidence gaps associated with repurposing our pipelines to transport CO_2 and provide guidance on how to safely repurpose and continue to maintain a carbon dioxide network in future.



Net zero

Image: St Fergus gas terminal

Our net zero strategy is central to delivering a clean, fair, and affordable energy future for the UK. It supports the transition to a decarbonised, resilient energy system, with hydrogen playing a vital role across all future scenarios to 2050 and beyond. We're actively exploring hydrogen transport via the National Transmission System (NTS) as a low-carbon alternative to natural gas—helping decarbonise heat, power, transport, and industry.

Early-stage development, supported by Net Zero and Reopener Development (NZARD) and use it or lose it (UIOLI) funding, is critical to progressing strategic projects and laying the groundwork for future net zero initiatives.

Net zero

Our net zero strategy has an integral role to play in leading a clean, fair, and affordable energy future for all in the UK. The strategy focuses on facilitating the implementation of a decarbonised energy system while providing energy resilience. In all future energy scenarios, hydrogen as an energy vector has a key role throughout the transition to 2050 and beyond. We are exploring transporting hydrogen as an alternative to natural gas in the NTS to decarbonise heat,

Our strategy to support UK decarbonisation is one of three molecules (Hydrogen, Carbon Dioxide and Methane). There will be a continued need for gas to keep homes warm, to keep businesses running and to keep the lights on throughout the transition. By pursuing opportunities across all three molecules, we will be able to navigate the uncertain pathways and timelines to achieving net zero in the UK no matter which scenario or combination of technologies plays out.

We are building the evidence base to convert the NTS to hydrogen through FutureGrid and a suite of innovation projects (see Chapter 7. Innovation). In our RIIO-T2 business plan, we committed to be ready to start the conversion to hydrogen by 2026. All the evidence gained throughout RIIO-T2 will support the transition of the NTS to hydrogen.

Project Union

Project Union is a pioneering project led by National Gas Transmission (NGT), which will create a hydrogen transmission backbone for the UK, facilitating the transport of 100% hydrogen. By the mid-2030s, the backbone will connect strategic hydrogen production sites, industrial clusters, and hydrogen storage facilities, while serving major industrial customers and power generation sites directly, as well as through Gas Distribution Network (GDN) connections.

Through a combination of repurposed existing assets, and new infrastructure, a hydrogen backbone of up to 2,500km will be created. A hydrogen backbone will be at the heart of a net zero future, acting as a key enabler for developing a hydrogen economy and realising key UK Government targets. Project Union will support a whole UK energy system approach to decarbonisation by providing critical resilience and flexibility to the electricity system during periods of low renewable electricity generation.

In 2024, Project Union completed the Feasibility Phase of the project. The Feasibility phase had three key outcomes:

1. **Phasing Strategy** – including prioritisation and timing for delivery of each section of the hydrogen backbone while ensuring security of supply on the remaining methane network (see Figure 19). It delivered a staged approach to project delivery and funding.
2. **Pre-Front End Engineering Design (Pre-FEED)** – activities for a full hydrogen backbone, delivering an appraised set of routing options, a constructability assessment and a planning and consenting strategy based on enhanced cost estimates and asset data. A full engineering policy review was also undertaken.
3. **Hydrogen market enabling** – activities including a supply chain assessment and ongoing customer and stakeholder engagement.

Figure 19: Illustrative Map of the Project Union core network, showing nine deliverable phases

In 2025, Project Union received a positive "minded to" decision from Ofgem on carrying out FEED studies for the first phase of the hydrogen network in the East Coast, this position has now been finalised with £42m of funding from Ofgem. This phase has two key outcomes:

1. East Coast FEED - Will identify a preferred routing option from the options identified during pre-FEED, where a revised options list will undergo conceptual design, lands and consents activities will be continued, and procurement activities will be commenced.
2. Project Union: Essential Enabling Activities - Programme of work critical to ensuring a fully operational and accessible hydrogen transmission network. These packages of work will support the delivery of FEED and ensure a fully operational network through demonstrating the potential to repurpose, defining operating procedures, adapting existing systems and assets for hydrogen, and developing and delivering a transition plan and governance structure with commercial frameworks in place and influenced by our customers and stakeholders, to deliver the initial FEED and further phases of Project Union.

Net zero and re-opener development (NZARD) use-it-or-lose-it (UIOLI)

In 2024/25, we have focused on strategic activities that will support NGT to achieve net zero by 2050. The NZARD UIOLI funding enables and facilitates early development work on strategic projects which are critical to progress further through net zero re-opener mechanisms. In 2024/25 we undertook ten UIOLI projects and spent £2.6m compared to nine projects with a spend of £0.6m in 2023/24.

Of the ten projects, four were completed within 2024/25, five are in progress into 2025/26 and one continued from 2023/24. These are:

Complete

- Hydrogen Grid Research & Development System Transformation - Network Modelling (Iteration 3)- (HGR&D) is a programme of work set out by the Department for Energy Security and Net Zero (DESNZ), which includes multiple sub-programmes. System transformation looks at the potential role of hydrogen networks. HGR&D ST - Network Modelling project incorporated Iteration 1 and Iteration 2 of analysis required to provide vital evidence of network roll to inform the policy decision on heat. Iteration 3 of analysis took a deep dive into system resilience and system operability building on Iteration 1 and 2 analysis.
- Pipeline Repurposing Decision Methodologies - Creation of an evidence-backed pipeline repurposing methodology and narrative that firstly assesses whether repurposing is the most effective approach, and if so, justifies which pipelines are clear candidates for repurposing and why, when they will be available, and whether it is strategically beneficial to repurpose to hydrogen (H2) or carbon (CO2).
- SCO^2T Connect FEED Readiness - NGT's natural gas Feeders have been identified as the optimal choice and most techno-economic solution for onshore CO2 transportation in Scotland. NGT is therefore exploring how pipeline infrastructure can deliver the connectivity between CO2 emitters across the central belt of Scotland and storage sites. This project will directly enable the decarbonisation for heavy industry and power in Scotland, reducing up 24% of Scotland's CO2 emissions by 2030. Without this project the Scottish Cluster will struggle to have a viable project as part of the Department of Energy Security and Net Zero's Cluster sequenciOur strategy to support UK decarbonisation is one of three molecules (Hydrogen, Carbon Dioxide and Methane). There will be a continued need for gas to keep homes warm, to keep businesses running and to keep the lights on throughout the transition. By pursuing opportunities across all three molecules, we will be able to navigate the uncertain pathways and timelines to achieving net zero in the UK no matter which scenario or combination of technologies plays out.

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- European Hydrogen Backbone (EHB) Phase 3-The program "Igniting corridor implementation" will consist of some continuous, year-round activities, which are needed to run the EHB initiative and maintain and expand the presence of the EHB-brand, such as updating the interactive EHB visionary maps on the website and posting on social media. In addition, we will develop an implementation roadmap towards 2030 on a European Union (EU) and Hydrogen corridor level as a key content deliverable, which is to be leveraged in our EHB communication towards EU institutions, key stakeholders and for the foreseen "Corridor Day", a full day physical event in Brussels.

In progress

- BRIGG Blending Demonstration – This project intends to blend up to 2% hydrogen into the Brigg Above Ground Installation (AGI) to flow into Centrica's power station, to demonstrate the first hydrogen blend on the National Transmission System (NTS) and the first hydrogen blend received by a UK power station. The outputs from this project will contribute to the pending Government decision on hydrogen blending on the NTS (which was expected in 2024), following the positive strategic policy decision on GDN hydrogen blending in 2023. This project is driven by Centrica who assert it is imperative that hydrogen blending is enabled on the NTS to unlock the UK's hydrogen economy at scale and facilitate the decarbonisation of the UK gas industry, a vision shared by NGT.
- Hydrogen Rupture Testing Part A – This project conducts ten rupture tests following those undertaken in FutureGrid Phase 1 to resolve some of the unanswered questions around gas ignition post rupture and its impact on the pipeline surroundings. Part B will follow based on the outcome of Part A (which was completed in early 2025).
- Blending re-opener Application – Blending activity in National Gas is currently being undertaken as a side activity to other hydrogen projects, innovation and business as usual activities. The BAU teams do not have funding to support the programme of work, and this is needed to ensure the safety case and other information is in place for 2% and 20% hydrogen decisions prior to RIIO-GT3. This funding will cover the internal time associated to developing this team and output to enable hydrogen blending.
- BP H2 Teesside Blending Pre FEED – British Petroleum (BP) have approached National Gas Transmission (NGT) with a proposal to connect a new 600MW hydrogen supply to the National Transmission System (NTS) in the Teesside region as part of their flagship H2Teesside project. The goal is to facilitate a blending connection into the existing 900mm NB Feeder 6 pipeline which transports gas from Teesside Terminal Central Area Transmission System (CATS) reception and processing terminal to Cowpen Bewley AGI, which is a Northern Gas Networks (NGN) offtake and junction between the 600mm NB and 900mm NB Feeder 6 pipelines. The project will also consider future works associated with delivering a 100% hydrogen supply to Project Union / East Coast Hydrogen.
- Project Union Route refinement for FEED – Continuum – Project Union's preFEED has produced initial route corridors for the Hydrogen backbone. However, following a legal review of the routing work completed and feedback from internal stakeholders, further development is needed to refine routes to address the gaps identified and to bring them up to the standard where they can be handed over to Construction to begin the FEED stage. Additionally, the Jacobs work did not create a counterfactual route for Wales, this is a regulatory requirement and is needed to support the submission of the re-opener for the Wales section of Project Union. Further refinement of routes also supports the backcheck and review process required and enables us to share routes with customers sooner to enable progression of their own decarbonisation decisions.

The following project was initiated in 2023/24 and is ongoing into 2025/26: .

Hydrogen Valley and Capital Hydrogen Consortium – Two key regional projects, Hydrogen Valley and Capital Hydrogen, are both at pivotal milestones and will provide a clear roadmap for the West Midlands and London, East of England and South East. Both projects are delivered in partnership by Cadent and National Gas Transmission, with Scotia Gas Network (SGN), also a key partner on Capital Hydrogen. Gemserv are now carrying out the secretariat role for the consortiums on a 12-month contract.

Net zero re-opener

In 2024/25 no projects were started or delivered under this funding mechanism however we are continuing to develop our portfolio and programme of work and will continue to review those with the potential to trigger a net zero re-opener.

Net Zero Pre-Construction and Small Projects re-opener

This mechanism allows Gas Transporter licensees to undertake early design, development, general pre-construction work, and net zero facilitation capital projects that will enable the achievement of net zero carbon targets. The mechanism can only be triggered by Ofgem based on a detailed engagement phase where it will establish the needs case in principle. The project must exceed £1m in value, but there is no specified upper limit under this mechanism.

In 2024/25 we continued delivery of the following applications under this mechanism as below.

Project Union Feasibility

Ofgem approved £5.6m (2018/19 prices) in funding in addition to a company contribution of 10% to deliver this phase which will complete a phasing strategy for delivery of each section of the hydrogen backbone, pre-FEED activities for a full UK hydrogen backbone and development of hydrogen market enabling activities. National Gas completed this phase in September 2024 for £5.3m (18/19 price base) to enable work to commence on the next phase of Project Union in the East Coast.

As part of the Feasibility Phase the following Ofgem deliverables were completed:

- **Phasing Strategy** - Phasing Strategy and Network Modelling Assumptions
- **Pre-Front End Engineering Design (Pre-FEED)** - Strategic Options Paper, Pre-FEED Study, FEED Scope
- **Hydrogen market enabling** -Delivery Plan, Market Analysis Report, Supply Chain

Methane Emissions (MERC)

This submission under the NZASP re-opener allows us to start to reduce known methane emissions arising from operating the NTS, while also establishing a measurement-based fugitive methane emission performance baseline. The submissions comprised three investment proposals which were submitted separately and are considered individual submissions under the NZASP re-opener mechanism, and a core document comprising common elements of the submissions. The three themes of the submissions are Mobile Recompression, Compressor Machinery Train and Detection and Analytics which were submitted between October and December 2022.

- **Mobile Recompression** – This submission was for additional mobile pipeline recompression capability and new mobile recompression units to capture methane emissions arising from pipeline inspection works and compressor station depressurisations.
- **Compressor Machinery Train** – This submission was for the trials of combined gas recompression and zero loss compressor seal technology to reduce methane emissions from the compressor machinery trains. We requested funding over a 4-year period to develop detail designs and deliver the trials at the chosen site locations.
- **Detection and Analytics** – This submission covered an expansion of the periodic fugitive monitoring programme and an implementation of new continuous fugitive monitoring systems at selected above ground installations.

Ofgem issued their decision on our re-opener submission on the 14th of March 2024 awarding £19.4m (2018/19 prices). Since submission NGT has progressed to undertaking a tender exercise to appoint a main works contractor to deliver the Compressor Machinery Train trials and the first year of three of the expansion of our periodic fugitive monitoring programme is complete. At the end of the three years a measurement based fugitive performance baseline for the National Transmission System will ave been established. Equipment procurement and personnel training has continued to ensure NGT delivers the periodic fugitive monitoring programme in the Detection and Analytics theme. Narrative with respect to this can be found in 'Chapter 9 NLR Capex Compressor Emissions Methane Detection and Quantification'. NGT has not progressed implementation of continuous fugitive monitoring systems at selected above ground installations as Ofgem disallowed this investment request.

In the Mobile Recompression theme NGT has placed an order with a supplier for the pipeline recompression set awarded and the investment sanctioning for recompression equipment to capture vented emissions from pipeline inspection works and compressor station depressurisations has begun. The pipeline recompression set ordered is expected into service in summer 2026.

NGT looks forward to reporting to Ofgem in future RRP submissions progress with delivery of these investments and the methane emission reductions they achieve.

Project Union FEED phase

A full NZASP re-opener application for the East Coast section of Project Union was submitted in April 2024. In March 2025 Ofgem published a minded to position of £40.7m (2018/19 prices) efficient Project Cost funding, including a company contribution of 10%, this is reflected in the RRP table. This will deliver a Front-end Engineering Design Study and enabling activities to support work this work.

This has now received the Final Determination of £43. 3m.

Further NZASP re-openers are currently being reviewed by Ofgem for [redacted] and North-West regions for the FEED phase, but we have not yet received a minded to position on these.

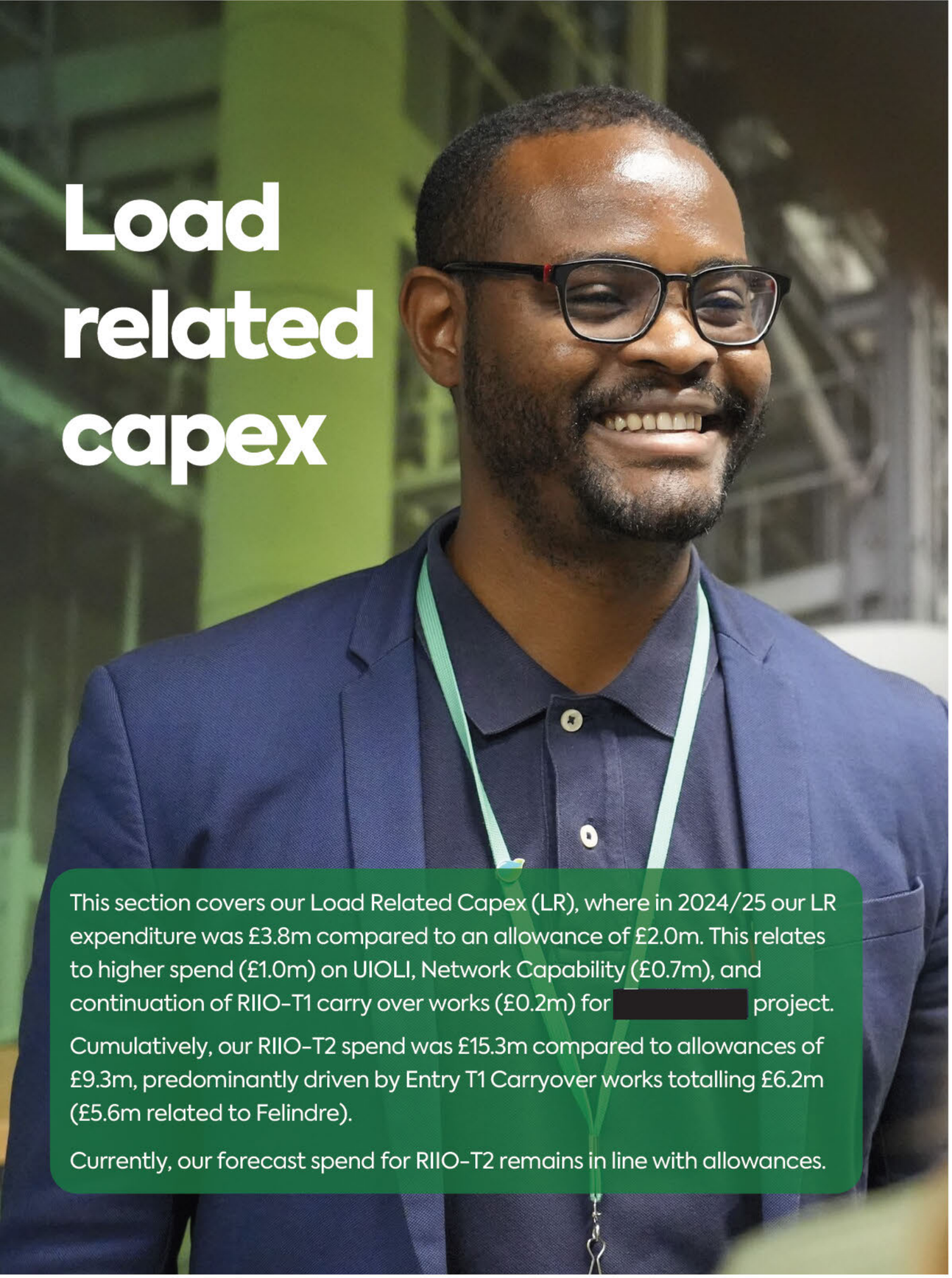
Capital expenditure (capex)

Image: Peterborough compressor station

This chapter details our capex costs and is split into three sections:

- Load related capex, which includes the installation of new assets to accommodate changes in the level or pattern of gas supply and demand
- Non-load related capex, which include the day-to-day costs to operate the network, such as staff costs, repairs and maintenance expenditures and overheads
- Non-operational capex, which covers vehicles, IT and telecoms, and small equipment

Load related capex



This section covers our Load Related Capex (LR), where in 2024/25 our LR expenditure was £3.8m compared to an allowance of £2.0m. This relates to higher spend (£1.0m) on UIOLI, Network Capability (£0.7m), and continuation of RIIO-T1 carry over works (£0.2m) for [redacted] project.

Cumulatively, our RIIO-T2 spend was £15.3m compared to allowances of £9.3m, predominantly driven by Entry T1 Carryover works totalling £6.2m (£5.6m related to Felindre).

Currently, our forecast spend for RIIO-T2 remains in line with allowances.

Incremental capacity

In 2018 a Planning and Advanced Reservation of Capacity Agreement (PARCA) at the [redacted] Entry Point was received. We have followed the approved capacity methodologies and framework obligations to develop a proposal for the Western Gas Network Project. The capacity requests cannot be met by the existing network in any scenario and is therefore to be treated as Funded Incremental Obligated Entry Capacity.

We submitted our Funded incremental obligated capacity (FIOC) Need Case in June 2021 and approval was published in December 2021. The majority of the project works was planned to be carried out without the need for planning permission (permitted development rights). One planning permission was requested and granted for site extension works to facilitate the connection of one of the new pipelines.

Since last years' submission:

- July 2024: The Reservation Party had formally withdrawn from the Western Gas Network (WGN) – FIOC Project Direction process.
- August 2024: Ofgem was informed by letter of the termination of the PARCA. NGT is no longer obliged to meet the incremental obligated capacity signal following the termination of the WGN project,
- August 2024: we initiated project closure activities in the most economic and efficient manner, in accordance with our network development process.
- September 2024: we issued the PARCA termination invoice for £6.7m
- September 2024: we invoiced £3.8m on the advanced activities agreement
- February 2025: another £1.0m as an interim invoice on the long lead item agreement (LLIA).
- We continue to cancel, redeploy and scrap materials including exploiting opportunities to transfer materials to WIRP.

We have minimised the impact to the consumer following the termination by invoicing the Reservation Party in accordance with the PARCA and associated AAA and long lead item purchase agreement (LLIPA) as outlined in the PARCA. To date £11.5m has been recovered. Any costs not recoverable through security will be processed through Special License Condition 6.1. to Ofgem as per the terms of the National Gas Transporter Licence that will be communicated as part of RIIO-T2 close out.

NGT has assessed the most economic material management to ensure the most cost-effective approach to repurpose the materials from the WGN to WIRP. The existing land rights strategy for the project included a Compulsory Purchase Order (CPO) which has been 'made' to include all land rights required to deliver the project is still in place and will be utilised for the WIRP. CPO powers will only be exercised where we have failed to secure voluntary agreements with grantors.

We have continued to have positive Ofgem engagement throughout 2024 in the lead up to repurposing of the existing WGN to WIRP to ensure the future network restraints in the network are addressed across [redacted] This has continued into 2025 following the termination of the PARCA from the Reservation Party to maintain a challenging programme.

Offtakes - Connections application

We continue to deliver connections to our network, supporting a competitive market and enabling natural gas to both enter and exit the network. The end-to-end process can take several years to complete depending on the scale of the project. A project will move through the Application to Offer (A2O) process, Detailed Design & Build before being commissioned as a live connection.

In 2024/25, we received eight applications under the A2O process. Of the eight applications, one was for an exit connection, six were for a bi-directional (entry & exit) connection, and one was for a modification to an existing connection.

One application was withdrawn and, therefore, did not achieve competency.

Of the seven applications received and achieving competency in 2024/25, four required Full Connection Offers (FCOs) to be delivered within 2024/25 and were delivered. One has been accepted, two are subject to an FCO extension, one is pending acceptance, two require FCOs to be delivered in 2025/26 and one achieved competency but the application was withdrawn.

One application was received in 2023/24 and achieved competency in 2024/25 for which an FCO was issued within 2024/25. The FCO was not accepted.

One application received in 2023/24 and achieved competency in 2024/25. The FCO was issued within year and is subject to an FCO extension.

Three FCOs from applications which achieved competency within the 2023/24 period were also issued. One has been accepted. One has not been accepted. One is pending acceptance.

Of the two FCOs signed, one is for an exit connection, and one was for a connection modification.

Compared to the number of applications received in the previous year, there is a decreasing trend.

However, we are seeing an increase in the number of 'Initial Enquiries' particularly for bio-methane connections, which may lead to an increase in applications.

In 2024/25 we received no applications to disconnect from the NTS.

We continue to deliver improvements across the business, using standardised designs and process where possible, continuing to engage with our biomethane and hydrogen customers to encourage and facilitate more green gas connections.

We have received requests from three customers seeking high level studies to establish whether hydrogen blend can be accommodated. Engagement via biomethane forums and innovation projects for blending has continued and learning from these projects will be used as templates for future customers wishing to connect.

The Gas Customer Hub went live in quarter three of 2024, providing the customer with real time updates as their project progresses and creating efficiencies for internal workflow management.

Connection application		Offers made in 2024/25	
Applications Received in 2024/25	8	Competent applications withdrawn	1
		FCOs made within year	9
Applications Received in 2024/25 which did not reach competency	1	FCOs accepted within year	2
Applications achieving Competency in 2024/25	7	FCOs not accepted within year	2
		FCO extensions	3
		FCO pending customer acceptance	2
		FCOs due to be issued 2025/26	0

Table 10: Summary of the NTS Connection Applications and Offers

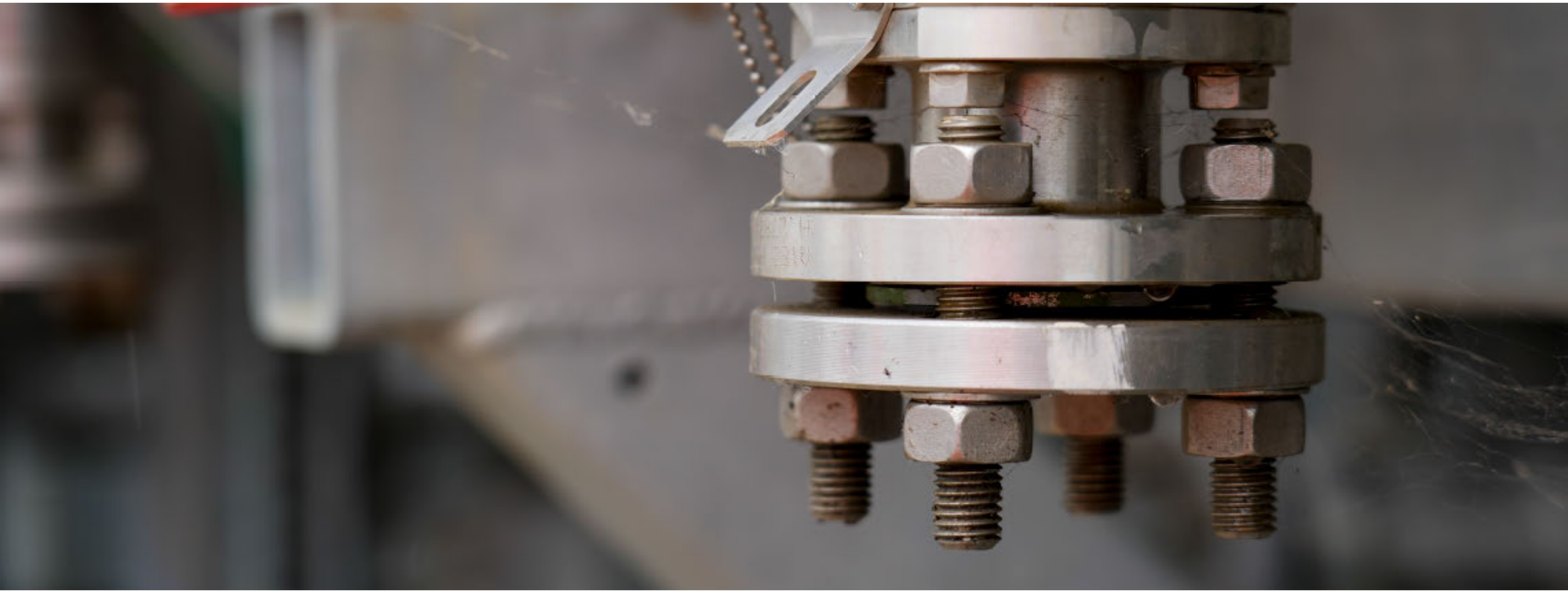
Capital expenditure continued

Entry RIIO-1 carry over

[redacted] was built as part of the South Wales Expansion Project (SWEP), triggered by the requirement to connect the [redacted] LNG terminal to the NTS. Construction of the compressor station was completed in 2010 but commissioning could not be completed until [redacted] PRI (Pressure Reduction Installation) was operational and protecting the downstream pipelines that have a lower pressure rating. The environmental aftercare category of RIIO-T1 funding included completion of [redacted] PRI and associated works, such as commissioning [redacted] compressor station.

Commissioning of the electric variable speed drive (VSD) was further delayed because the volume of gas for which the assets had been designed did not materialise. However, flows were high enough to commission the two smaller gas turbine units. The VSD unit was put into preservation from 2014 to 2016, due to the continuing low flows through [redacted]. Based on higher flow forecasts, in January 2016 we made the decision to progress with commissioning the VSD. Work has been ongoing since then to bring the unit out of preservation and prepare it for commissioning runs. After the prolonged period between construction and commissioning, many issues were identified and have been resolved. [redacted]

Although the VSD unit will be available for use before then, it will be on a restricted operation basis until replacement of the control system is completed. As reported in last year's RRP, works to re-coat sections of the VSD pipework took place throughout summer 2024 and the unit could not be run whist this was ongoing. Subsequently, a routine inspection by the original equipment manufacturer (OEM) found damaged parts and the VSD cannot be run until the parts have been replaced. This further delayed the final software modification and remote running tests, which were scheduled for April-May 2025. We anticipate Operational Acceptance for restricted running in September 2025 and Asset Acceptance in December 2025. When the VSD control system work is completed, the unit can be signed off with full Asset Acceptance and the restricted operation can be lifted.



Capital expenditure continued

Network capability

Changing customer needs

The current year expenditure is below allowances and the estimated cost to complete is £1.5m against allowances of £1.7m.

These works are to upgrade metering assets at two sites, [redacted]. These upgrades will ensure greater accuracy of flow measurement of gas, to ensure that National Gas Transmission customers are charged correctly and that there is an accurate view on the NTS energy balance. Due to the customers reducing their flows the existing metering has become oversized; the new metering system being installed will accommodate the reduced flow rate and future proof it. These projects involve the replacement and upgrades of various metering assets on the network. The physical works at [redacted] were completed in 2022/23. Detailed design activities at [redacted] have been completed with physical works planned to start in July 2025.

Tactical access ([redacted] AGI)

The [redacted] Tactical Access project at Tirley Above Ground Installation (AGI) was required to enable filter maintenance to be undertaken without causing constraints on the network. The primary driver is network resilience for consumers in Wales and for [redacted]. The investment will also contribute to National Gas's continued security of supply.

We remain on track to fully deliver the preferred option, which is to remove and replace the existing plug valves immediately upstream and downstream of the three 750mm nominal bore filters, within RIIO-T2.

In the first four years of RIIO-T2, we have spent £1.5m on this project. Factors such as project complexity outside of Business Plan assumptions, and valve prices and lead times being higher than expected due to the Russia-Ukraine conflict, have impacted the project forecast such that it exceeds allowances. The total allowance is £1.0m. The current project forecast is £1.5m.

In 2024/25, NGT completed the preferred option scope of works, which included:

- detailed design (contractor - [redacted])
- build in November 2024 (contractor - [redacted])
- the subsequent closure of remaining painting defects, from the site works, in May 2025 (contractor [redacted])

In the next reporting cycle (2025/26), we intend to complete the investment closure.

Non-load related capex

This section covers our non load related capex, where in 2024/25 our RIIO-T2 expenditure (including UMs and RIIO-T1 expenditure) was £221.1m, which was £26.7m above allowances of £194.4m (excluding RPEs).

This compares to expenditure of £161.0m (including UM costs) versus allowances of £200.9m in 2023/24. Cumulatively, our RIIO-T2 non-load related capex spend of £658.3m is £24.8m below allowances.

In the first three years of RIIO-T2 we experienced slower than expected progress across many of our non-load related capex deliverables. This was mainly due to a national skilled labour shortage as well as the aftermath of Covid-19 and the Russia/Ukraine conflict which caused procurement challenges and difficult operational conditions. In 2023/24 we started to show a significant increase in volumes of work.

In 2024/25, we delivered a further 37% increase on 2023/24 activity, in areas such as Asset Health (+ £40m), Compressor IEDs (Industry Emissions Directives) (+£10m), MERC (+£3m), RIIO-GT3 preparatory work (+£4.4m) and East Coast Hydrogen (£2.4m). Our 2024/25 spend of £221.1m was notably £63m higher than our RRP24 in year forecast for 2024/25 (£158.3m) moving delivery profile towards the higher levels of investment required in RIIO-GT3.

For 2024/25 spend, the key variances to Year 4 allowance include:

- Asset Health Baseline - £21.1m higher than our Year 4 allowance.
- [redacted] Emissions Baseline - £10.0m higher than our Year 4 allowance.
- Emissions Medium Combustion Plan (MCPD) Baseline - £6.9m higher than Year 4 allowance.
- Stopples Baseline – £3.6m higher than our Year 4 allowance.
- Redundant Assets Baseline - £2.6m lower than our Year 4 allowance.
- Asset Health UM - £18.8m lower than our Year 4 allowance
- RIIO-GT3 readiness - £4.4m spent

Our baseline Asset Health spend was £21.1m higher than our Year 4 allowance, and is broken down as follows:

- £17.1m higher on Plant & Equipment
- £11.2m higher on Compressors
- £4.3m higher on Electricals
- £1.2m higher on Civils
- £10.7m lower on Pipelines
- £1.3m lower on Cabs
- £0.8m lower on Valves

Across the baseline Asset Health portfolio, we expect to spend ~£40m (in line with RRP24) less than our allowances for the RIIO-T2 period.

This has resulted from a number of initiatives including:

- Optimisation of our Network Access Risk Metrics (NARMs) element of the portfolio, deliver improved value for consumers through optimising the blend of interventions undertaken across the National Transmission System (NTS), managing levels of network risk improvement whilst maintaining security of supply.
- Our approach to pipeline interventions has proven highly effective. By employing a blended labour model to deliver Closed Interval Potential Surveys (CIPS) and In Line Inspections (ILI) interventions, we have significantly reduced the need for excavation while maintaining the same level of defect resolution.
- Focussing on utilisation of internal expertise to deliver efficiency, for example using our Operational fieldforce and National Gas

Services (NGS). This has enabled us to deliver an efficient bundling of works, which optimises outages to deliver work effectively (reducing the need for recompression), whilst minimising operational and customer disruption. At the same time, it significantly reduces our reliance on external contractors, leading to lower costs.

- Acquisition of Premtech within the price control period to internalise our design and survey costs with a view to delivering efficiently and effectively

For our **Asset Health Non-Load Uncertainty Mechanism (UM)** we have incurred spend of £55.7m during 2024/25, which is cumulatively £105.5m. On 6 June 2025 we received final determinations totalling £162.9m, and we are forecasting spend to be in line with this.

[redacted] **Emissions spend** in 2024/25 was £22.4m, £10.0m higher than Year 4 allowance. [redacted] has experienced programme slippage in three major areas; late design changes delaying construction; poor quality free-issue materials has led to re-work from other contractors and delay; and extreme volumes of rain in the region in 2023 and 2024. The programme slippage means the PCD will be delivered after the PCD delivery date of March 2025, with the latest schedule programme now highlighting an asset acceptance scheduled for July 2025. The slippage also results in a higher forecast project spend in RIIO-T2 vs. allowances (£21.6m). Risk remains for the remainder of the delivery schedule as the project team strives to achieve all the remaining key programme dates.

Emissions Medium Combustion Plan Directive (MCPD) Project

Total spend of £14.9m occurred in year on the projects under the scope of MCPD Baseline, £6.9m higher than Year 4 Allowance. This covers spend at [redacted] (£2.4m), [redacted] (£9.1m), [redacted] (£2.4m) and [redacted] (£1m). We expect spend to come largely in line with allowances at the end of RIIO-T2, with any deviations from this position included in our Uncertainty Mechanism (UM) cost submissions made.

The UM forecast remains in line with the August 2024 FOSR of £41.9m which is included in the PCFM – the needs case has been agreed, but the allowance is still to be determined.

[redacted] Site Redevelopment FEED

Our spend was £2.1m in 2024/25. Cumulatively spend is £5.8m, £4.7m lower than baseline allowances. We still expect further spend to bring broadly in line with RIIO-T2 allowances of £10.5m, in line with our Uncertainty Mechanism (UM) cost submission made in October 2024.

The UM forecast remains in line with the August 2024 FOSR of £11.6m which is included in the PCFM – the needs case has been agreed, but the allowance is still to be determined. This also holds us broadly in line with our Uncertainty Mechanism (UM) cost submission made in October 2024.

Redundant Assets

Our spend was £11.2m in 2024/25, £1.6m lower than Year 4 allowance. Cumulatively through the first 4 years of RIIO-T2 we have spent £33.0m vs an allowance of £56.7m. We plan to spend a further £18.8m in 2025/26, but notably, some outputs are now expected to be delivered in RIIO-T3 with a forecast spend c£11.9m in 2026/27. The main drivers are:

- Feeder 1 and Feeder 9 are now be completed in RIIO-GT3. Design and survey works are underway with option assessments nearing completion in RIIO-T2. The environmental conditions associated with these outputs are complex given the underlying tidal conditions in the Humber estuary. We are reviewing potential repurposing options before proceeding.
- [redacted] Compressor Station will be delayed due to the interface with the core project delivery as outlined above.

GRAID

Our spend on GRAID in 2024/25 was £1.7m, £2.3m below allowances. Cumulatively, we have spent £1.7m against allowances of £12.3m. Our original plans were disrupted by interruptions to the supply chain and outage schedules. A revised schedule has been agreed with Ofgem and is the primary driver behind the underspend against allowances for the GRAID project. The majority of the spend and outputs will now fall into RIIO-GT3.

Stopples

Our 2024/25 spend on Stopples was £3.6m above allowance and represents recovery of our prior year under spend against allowances. Stopples costs manifest themselves on interventions within the Asset Health themes of Valves and Plant & Equipment and are used where a pipeline shutdown cannot be achieved due to network constraints or the need to maintain supplies to a customer. In 2024/25 there was a re-allocation from Asset Health resulting in an expected overspend against allowances by the end of RIIO-T2 (£3.5m).

Recompression

Our 2024/25 spend on procuring new Recompression units was £1m higher than allowance, due to phasing, as this represents a partial recovery of prior year underspend. We expect RIIO-T2 spend to be in line with allowances.

DSEAR

Our DSEAR spend is related to "Dangerous Substances and Explosive Atmospheres Regulations" to ensure compliance to Spend in year was £1.6m, cumulatively £4.1m. Whilst there are no specific allowances for

this within our RIIO-T2 deal, we view this as a "Null output" i.e. spend without specific Price control deliverable (PCD) outputs associated. As the expenditure was required for compliance, we will look to fund this through our "Null output" funding with appropriate prioritisation of RIIO-T2 available funding.

RIIO-T1 carry over

In terms of RIIO-T1 carry over Non-Load Related Capex, we have incurred a further £3m of costs in 2024/25. Cumulatively, for RIIO-T2 we have incurred £86.4m of RIIO-T1 carry over non-load related capex. These costs cover the ongoing Peterborough and Huntingdon Compressor works (£79.0m), with further costs incurred on asset health carryover spend (£5.7m) and Feeder 9 (£1.7m).

RIIO-GT3 accelerator work

In addition to this, we have spent £4.4m on RIIO-GT3 accelerator work and plan to spend a further £20.4m in FY26. This is related to outputs included within our RIIO-GT3 plans and is key in us delivering the first year of RIIO-GT3 in line with expectations.

Non load related capex – Compressor emissions

[redacted] RIIO-T1

[redacted] Compressor stations are critical to efficient transmission across the centre of the network. For example, Peterborough provides essential North-to-South and West-to-East compression services while it works in tandem with Huntingdon to enable North-to-South gas flow which is important for balancing across the entire NTS.

At the start of the RIIO-T1 period, [redacted] consisted of three [redacted] machines each. The units can operate in series or parallel. Under RIIO-T1 allowances, two new gas turbine compressor units from [redacted] were approved for installation at both sites as part of the Emissions Reduction Project 3 (ERP3) initiative, which falls under Integrated Pollution Prevention and Control (IPPC) legislation.

At [redacted] during 2024/25, the project achieved Operational Acceptance status with the following key activities completed in both units:

- Pipework Vibration remediation
- Radio System Modifications
- Site Lighting Installation
- Pipeline Protection Slabs
- Replacement of Fuel Gas Lines
- Additional Cable Pulling for missed Circuits
- Valve Remediation Works – a decision was made to replace all the valves at [redacted] due to ongoing valve failure during commissioning due to the type of oil used and the time that has elapsed since Factory Acceptance Test (FAT).

The [redacted] has demobilised from site. All the outstanding snagging issues have been resolved.

At [redacted] the remaining tasks to complete the project consist of commissioning of a condensate tank, battery installation and testing, data book completion and drawing review. The outstanding noise issue will be addressed with the new MCPD project.

Like [redacted] during 2024/25 a number of key activities have been progressed at [redacted] as the new units achieved Operational Acceptance status.

The following activities were completed within the period:

- Radio Systems Works
- Balance of Snagging Works
- Lighting Design Works
- Armacell Class C Acoustic Lagging Works
- Drainage Works
- Additional Cable Procurement & Pulling Works
- Protection Slabs
- Valve Remediation Works – similar to [redacted], a decision was made to replace all the valves at [redacted] due to ongoing valve failure during commissioning.

Both units at [redacted] have been handed over and under GNCC control. [redacted]

Testing and emission testing has also been completed on both Unit D and Unit E with positive results.

At [redacted], the remaining tasks include, the commissioning of a condensate tank, water area works, battery installation and testing, data book completion and drawing review.

The [redacted] ERP3 projects have experienced significant cost increases since the beginning of the projects predominantly driven by factors such as programme elongation, inflation costs, and government policy (increase in National Insurance).

The remaining months of 2025 will see the described activities completed and the project closed out by the end of the financial year.

Figure 20 - [redacted], April 2024

Figure 21 - Design for exhaust cladding at [redacted]

Figure 22 - [redacted] site

[redacted] RIIO-T2

At the start of the RIIO-T1 period, [redacted] onsisted of three [redacted] machines each. The units can operate in series or parallel. Under RIIO-T1 allowances, two new gas turbine compressor units (D&E) from [redacted] were approved for installation at both sites as part of the Emissions Reduction Project 3 (ERP3) initiative, which falls under Integrated Pollution Prevention and Control (IPPC) legislation. The two new Dry Low Emissions (DLE) compressor units now commissioned will provide primary compression duty, leaving the existing Avon unit on standby. This remaining unit will be non-compliant with MCPD legislation as of 2030, which will be addressed by the 2025 re-opener.

We submitted the [redacted] Final Option Selection Report (FOSR) in January 2023, which identified our Final Preferred Options for compliance with MCPD. Ofgem published their Final Determination in November 2023, which supported investment in one new gas-driven compressor unit at [redacted] and investment in significant asset health works at [redacted]

Over the past year, [redacted] MCPD project has continued the development of the Final Preferred Option. We contracted with Worley to conduct a pre-FEED study to further refine engineering detail for the new unit at [redacted] also performed a [redacted] at both sites to understand current asset condition, the feasibility of continued operation until 2050 and the levels of future investment required. These studies were beneficial in positioning NGT to perform FEED studies from 2024.

The [redacted] project is now in contract with [redacted] March 2025. Both contracts were awarded following a direct award procurement process and represent a key milestone for the project.

The main works follows a two-stage Early Contractor Involvement (ECI) contract model with the first stage involving ECI Stage 1 divided into two distinct stages – Stage 1A and Stage 1B. The purpose of Stage 1A is develop a cost estimate for the remaining project works. The [redacted] re-opener was submitted to Ofgem on 27 June. Once funding has been approved and agreed between Ofgem and Client, Stage 2 can begin. To provide for project continuity during the re-opener submission and approval period, interim ECI Stage 1B is proposed.

During this time, we successfully completed the comprehensive development of the cost book, ensuring all financial assumptions and project parameters were thoroughly validated and documented. In June 2025, we proceeded to submit detailed and standalone cost reopener applications to Ofgem, separately, for two [redacted] projects.

Following Ofgem's approval of the preferred option in November 2023, we made the decision to separate the [redacted] submissions into standalone submissions, reflecting the difference in technical scope and delivery strategy. This approach was discussed and adopted in the course of pre-application engagement between NGT and Ofgem. As part of the individual submissions, we are proposing to create standalone PCDs and allowances to be updated in the Licence conditions following Ofgem's determinations.

This coming year will see the project team focussing on completing Conceptual Design, Major Works Contract Stage 1b, Project Scope Feasibility completion and site set up for Peterborough and work up the contract for long leads and detailed design for Huntingdon.

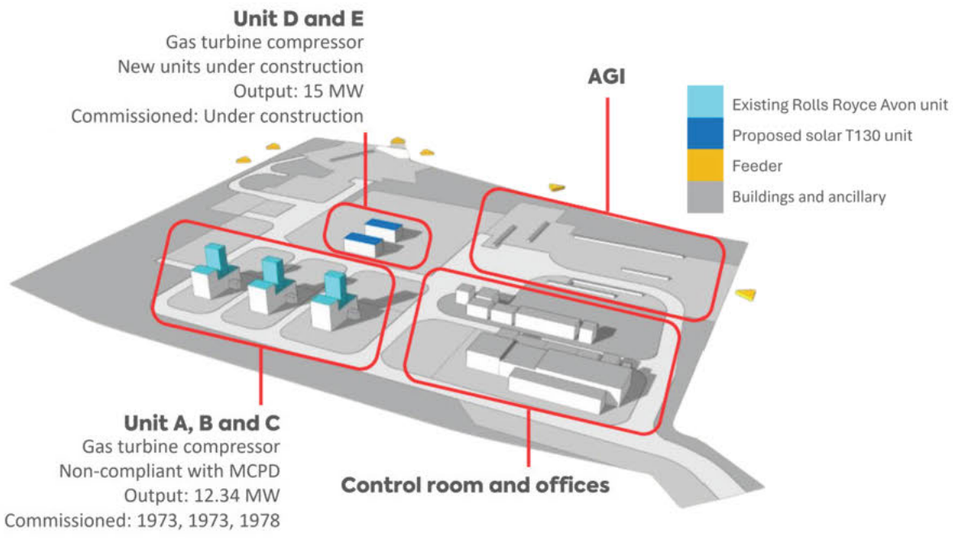


Figure 23.- [redacted] Station


Peterborough compressor station

[redacted]

[redacted] and has a pivotal role in the transmission of high East flows to the wider network as well as supporting large directly connected loads and storage sites in the immediate vicinity. [redacted] and is therefore critical to exit loads across the South of the country, international exports and 1-in-20 obligations. A geographical representation of [redacted] interaction with the NTS can be seen in **Figure 24.**

[redacted] consists of an electric VSD (Unit D), which is the lead compression unit, [redacted] which supplement the VSD and provide backup capability. We are installing a new gas-powered 41MW compressor (Unit E), of equivalent capability to the 35MW Electric VSD.

Units A, B and C do not comply with the requirements of the Large Combustion Plant (LCP) Directive. On 1 January 2016, Units B and C were each placed on 17,500-hour Limited Life Derogation (LLD) and were due to be decommissioned from operational service by December 2023. However, as a result of the updated project delivery schedule, Units B and C were granted an extension by the Environmental Agency in Winter 2023 and are due to be taken out of service as of March 2026.

Unit A was placed on 500-hour Emergency Use Derogation (EUD). Entering one unit into the 500 hours' derogation provides flexibility for the future solution for the site, and extends the potential construction window for any new units.

The majority of the works performed at [redacted] Compressor Station during 2024/25 have been associated with the installation of the new [redacted] compressor unit. This includes:

- Completion of all civil, mechanical and electrical preparatory works, including the following:
- The noise cladding has been installed which will be tested when the unit is ran through commissioning phase.
- Nozzle connections to the [redacted] compressor have now been made.
- Drainage and Draw pit installation are completed.
- All foundations have now been installed and equipment installed.
- [redacted] supply equipment has been installed with snagging ongoing.
- All small-bore piping has now been installed with snagging ongoing.
- Cable pulling, terminating within Balance of plant Local Equipment Rooms (LERS), Gas Turbine and [redacted] LER has been completed.

The project team is targeting that the new compressor unit will be operational by Q4, 2025.

Cold commissioning work commenced on site in April 2025, alongside the completion of snagging works. The cold commissioning was completed in May 2025 and gas was introduced to the unit in June 2025.

[redacted] LCPD project has experienced programme slippage during 2024/25, mainly due to challenges associated with achieving the nozzle alignment tolerance requested by [redacted] the additional time this took to achieve, and associated knock-on to completion of secondary pipework and C&I (Control & Instrumentation) activities. The small-bore piping took longer than anticipated due to unforeseen challenges encountered during execution. Works by various contractors are at different stages of completion.

Compensation claims have been pursued with a number of the contractors. An agreement was reached with [redacted] to provide an extended warranty and service packages as a good will gesture without accepting any liability. Claims involving [redacted] were concluded as the evidence meant that the EPCM (Engineering, Procurement and Construction Management) Contractor should be held responsible for the costs. These costs have been included in the Heads of Claims which have been tabled to [redacted] and are currently included in the Settlement Agreement that both Companies are currently working together to conclude before the end of the current financial year

Additionally, Ofgem's preference in the final determination for NGT to deliver one large unit [redacted] rather than two smaller units has resulted in a continual review of the proposed OEM commissioning costs, as these were not fully

[redacted]

Figure 24.- [redacted]

understood at the beginning of the project. This is principally driven by the fact that there are only a handful of such units in operation globally, with none in the UK, and as such limited installation experience is available from the OEM and contractors for such a large unit. Our previous experience with other compressors has shown it is essential that we take a cautious and collaborative approach with all the contractors to risk manage the commissioning programme and ensure we successfully deliver operational acceptance.

It should be noted that the EJP cost submission for [redacted] in May 2020 included a project completion date of 2025 and requested total allowances of £80.0m, both of which were accelerated and/or reduced in the final determination. However, based on unexpected macroeconomic factors, the collective risks that have materialised during project delivery and the impact of these risks on achievement of the accelerated programme, our EJP submission was more realistic, both in terms of time and cost. This is an important lesson learned for future emissions projects.

The revised programme schedule is tracking that the PCD will be delivered after the PCD delivery date of March 2025, with the latest programme indicating Asset Acceptance scheduled for February 2026. The project is now forecasting a circa £21.8m cost increase over RIIO-T2 allowances, primarily driven by the extended delivery schedule and due to all the specific reasons noted above, but also as a result of unforeseen inflationary pressures during the construction phase. In particular this has impacted steel prices, labour rates and availability and, more recently welding inspection rates.

Significant risk remains for the remainder of the delivery schedule as the project team strives to achieve all the remaining key programme dates.

We are continuing to work with our contract partners to identify cost efficiency opportunities and to understand how to optimise the current programme.

In the coming year, the commissioning activities will be completed, and the project will achieve mechanical acceptance, operational acceptance and be available for commercial load status. The asset acceptance certificate will also be completed in 2025/26.

Figure 25: Completed cladding and air-intake HVAC works

Figure 26: Insulated pipeline

Figure 27: Completed fuel gas skid and exhaust stack

[redacted] gas terminal

As the highest utilisation compressor site on the NTS, [redacted] gas terminal enables UK Continental Shelf (UKCS) and Norwegian gas supplies entry onto the NTS. St Fergus comprises three plants. Plant 1 has four [redacted] units of which one (1C) is being decommissioned in RIIO-T2. Plant 2 has one [redacted] (2B) and one [redacted] in addition to two other units (2C and 2D) which are also being decommissioned in RIIO-T2.

Once the new units, set out in NGT's January 2023 emissions UM submission, are operational, the decommissioning of further units no longer required will be completed.

Plant 3 has two electric Variable Speed Drives (VSDs). Although described as a Plant area, it should be noted that Plant 3 consists of compressors only and use of these electric drive compressors relies upon the auxiliaries of either Plant 1 or Plant 2, and therefore cannot be used as an independent plant.

In developing our investment programmes at the [redacted] Gas Terminal, since the RIIO-T2 Final Determinations, we have adopted a two-phase strategy to ensure clarity between short-term asset health (AH) and long-term site operating strategy.

Our [redacted] short-term strategy provides certainty on the terminal operation requirements, including minimum compression across Plant 1 and 2, for operation out to 2030. The long-term strategy will deliver the enduring terminal solution, including compression, required for operation beyond 2030.

Long-term strategy

As stated in previous RRP reports, in terms of LCPD, we gained approval from the Scottish Environment Protection Agency (SEPA) to enter the [redacted] units (2A and 2D) into the Limited Life Derogation (LLD) from 1 January 2016. With MCPD affecting the operation of the Avon units from 2030 onwards, we also investigated options on how best to utilise them until the end of 2029 and submitted a Final Option Selection Report (FOSR) to Ofgem in January 2023 detailing our preferred option to achieve MCPD compliance at the site. Within their Final Determination (dated 3 November 2023), Ofgem agreed with our investment recommendation to replace three non-MCPD compliant compressor units with three new gas driven compressor units. They also supported the retention of one existing [redacted] unit with significant asset health investment to improve unit availability. The timing and availability of a suitably verified and validated DLE option for unit 1A is yet to be determined and will only be progressed once we have confidence in the functionality of the technology.

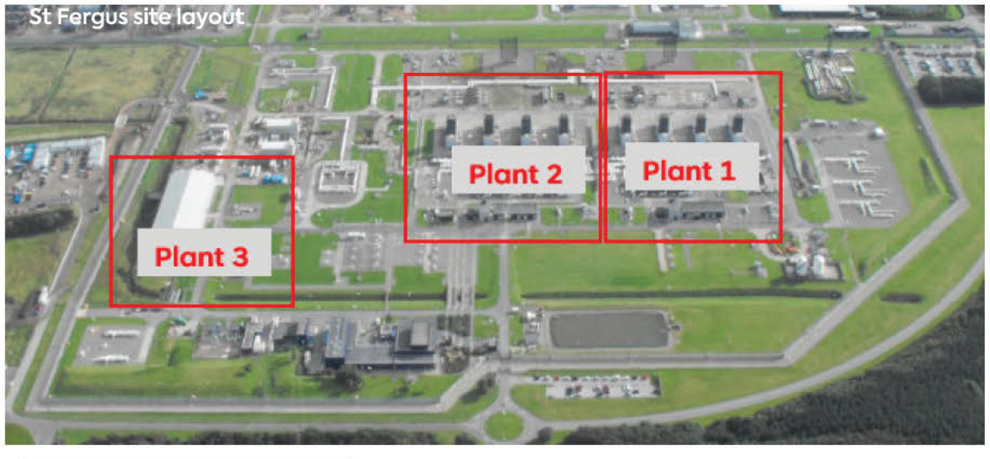
In order to provide resilience and redundancy across Plant 1 and 2 (which provide back-up to the lead compression units on Plant 3), two new units are to be installed on Plant 2 and one new compressor on Plant 1 to supplement the retention of Unit 1A.

Units 1C, 2C and 2D are no longer operable and are planned for decommissioning in 2025/26. Therefore, it is currently planned to utilise these vacant berths to install the new compressor units starting circa 2026.

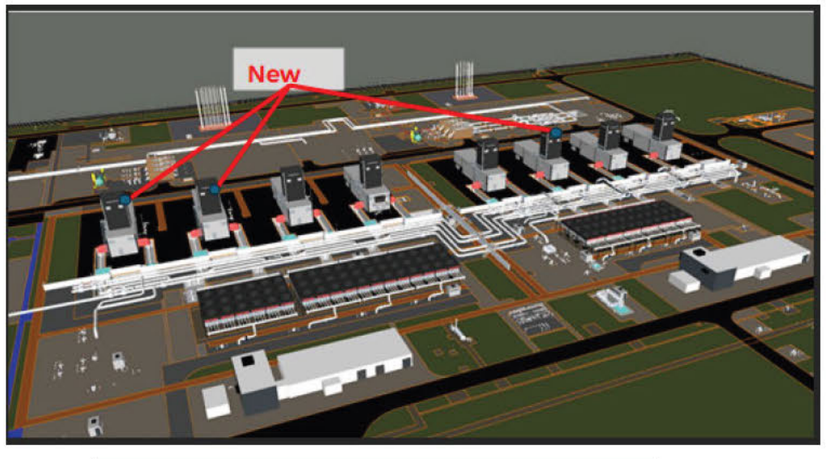
Since Ofgem's final decision on our FOSR, the [redacted] MCPD project has continued the development of the final preferred option. We contracted with [redacted] to conduct a pre-FEED study to further refine engineering detail for the three new units. [redacted] also performed a Remnant Life Study on Unit 1A [redacted] unit to understand current asset condition, the feasibility of continued operation until 2050 and the levels of future investment required.

These studies were beneficial in positioning NGT to perform FEED studies from 2024. Also, during this time, the MCPD delivery and contract strategy were established and approved internally. A two-stage Early Contractor Involvement (ECI) contract model was agreed for Design and Build Phases as the most appropriate and effective model to use across MCPD projects to drive an early, collaborative relationship with the chosen contractor.

Following a robust tender and negotiation process, we awarded the main works contract to [redacted] This was followed by the award of the Original Equipment Manufacturer contract to Siemens (SGT-400 machines) in March 2025. The award of these contracts represents a key milestone for the project and will



[redacted]



[redacted]

[redacted]

Capital expenditure continued

allow us to deliver the new compressors in line with legislative requirements by 1 January 2030. Both contracts followed a competitive procurement process, representing a key milestone for the project.

[redacted] completed a remnant life study for the [redacted] unit 1A identifying potential asset interventions which should be considered in the next stage of project development. [redacted] were then engaged by NGT on the Regional Asset Health Framework (direct award) to undertake detailed intrusive surveys of unit 1a related assets and provide a report with findings and recommendations for necessary interventions (remediate or replace) to provide continued service for 25 years. Draft reports have been received and are currently in review.

As part of our ongoing development and assessment of the MCPD delivery strategy, we have reviewed our submission timelines and identified the best timings to submit high scope and cost confidence re-openers. As a result, the delivery dates of our MCPD re-opener submissions will deviate slightly from our initial planned dates, with the majority being delivered in the latter part of 2025.

Short-term strategy 2021-2030	Long-term strategy 2030+
Valve actuators [redacted] operability and availability	[redacted]
Plant 1 aftercooler Site cathodic protection system replacement	Emissions compliance
Unit decommissioning (1C, 2C, 2D) Above ground pipework corrosion	Site wide asset health
HV transformers Priority valves (phase 1)	HV switchgear
Plant 2 aftercoolers HV cabs asbestos mitigation Distribution boards	LV switchgear and MCCs

Table 11: Short-term and Long-term Strategy

Capital expenditure continued

Short-term strategy

In conjunction with the progression of our [redacted] compressor emissions FOSR, we have continued to develop the AH investment programme which maintains and, where necessary, replaces assets to ensure continued safe operation of the site. At this continuously operating terminal, the availability and optimisation of outages presents significant challenges to investment delivery due to incoming supply factors or NGT operations. We will seek to schedule and deliver as efficiently as possible, and risk trade investments, if necessary, to maintain Terminal performance and operational safety.

The intention of the short-term strategy is to ensure the continuity of the terminal operation requirements, including minimum compression across Plants 1 and 2, for operation to 2030. It recommends investments which maintain the integrity of the site, and which reduces risk to site personnel, ensuring continued operation of the terminal and maintain compression. The initial five asset health engineering justification plans (EJPs) that were submitted in the asset health UM cost re-opener in January 2023 received Ofgem full support. A further four out of eight submissions made in the June 2023 AH UM have received Ofgem full support with Final Determination issued in 2024. Two of these eight EJPs received agreement of the needs case in principle (HV transformers and Distribution boards) with direction from Ofgem to request allowances through the MCPD submission.

The short-term strategy looked to retain flexibility of options for the long-term strategy solution by retaining the Avon until the results of the FOS Preliminary FEED were available last summer. As a result of the Preliminary FEED for the Emissions investment, it is now proposed to decommission Unit 1C.

We will work towards submitting the cost re-opener at the end of 2025 and progressing the project to Detailed design (F4) whilst waiting for Ofgem's feedback on the re-opener. The demolishing works on Units 1C, 2C and 2D, replacing the Cathodic Protection System and initiating a site-wide painting programme will continue.

[redacted]

Compression requirements at [redacted] Compressor Station are heavily influenced by entry flows at the Milford Haven terminals. NGT uses [redacted] amongst other compressors, to move high volumes of gas (up to a third of Great Britain's daily demand) away from [redacted] into the rest of the network.

[redacted] A gas fired power station is also located at [redacted] The LNG terminals can increase and decrease their supplies throughout the year depending on national and international market conditions. Due to its bi-directional flow capabilities, [redacted] is also required to support demand extremities in South-Wales when [redacted] inputs are low, and in the South-West when demand is high.

[redacted] Compressor Station comprises two [redacted] compressors [redacted] Units A and B) and one electric driven [redacted] VSD compressor (Unit C) which is the lead unit. Units A and B are non-compliant with MCPD emissions legislation and if maintained past 2030 they will be placed under 500-hour restricted running (Emergency Use Derogation - EUD) from 1 January 2030.

We submitted the [redacted] Final Option Selection Report (FOSR) in August 2022, which identified the Final Preferred Option for compliance with MCPD. Ofgem published their Final Determination in March 2023, which supported investment in one new gas-driven compressor unit at [redacted] An existing [redacted] compressor unit will be retained under EUD, with significant asset health investment to improve unit availability.

Over the past year, [redacted] MCPD project has continued the development of the Final Preferred Option. We contracted with [redacted] to conduct a pre-FEED study to further refine engineering detail for the new unit. Worley also performed a Remnant Life Study. The Remnant Life Study looked at discreet systems and subsystems:

- Rotating machinery
- Enclosure structural integrity
- Enclosure Ventilation
- Fire and Gas Detection and Suppression
- Piping and Valves including associated pipe supports
- Electrical

The project is now in contract with Main Works Contractor United Living and Original Equipment [redacted] in March 2025. Both contracts were awarded following a competitive procurement process and represent a key milestone for the project.

The main works contract is a two-stage contract with the first stage involving Front End Engineering Design (FEED) which will form the basis of a ±15% cost estimate and execution schedule for the detailed design, construction and commissioning which will take place in stage 2. Between stage 1 and 2 we will submit our cost re-opener to Ofgem to request remaining funding allowances. We are intending to submit the cost reopener in the latter part of 2025. Following the conclusion of the re-opener process we will hopefully be able to issue a formal notice to proceed to the contractor to progress stage 2 works.

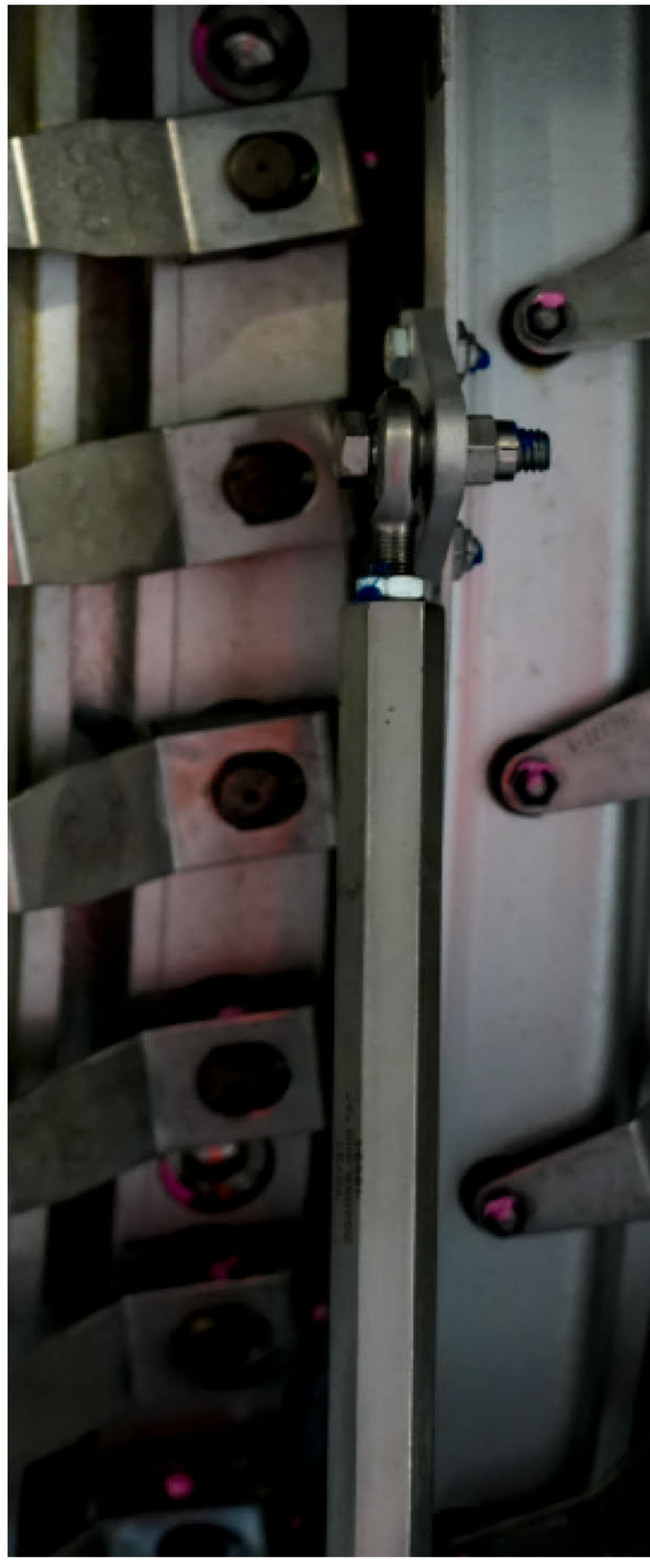
The compressor machinery train supply contract is a call off from an existing framework agreement. Each of the framework suppliers were asked to submit proposals which were evaluated via the Best Available Techniques (BAT) process which is a whole life cost benefit analysis process. The compressor equipment will be free issued to the main works contractor for installation and commissioning with supervision of on site works provided by the supplier.

For the Asset Health re-life of compressor units A (under MCPD) and B (under RIIO-GT3 plan), we Contracted with United Living on the Regional Asset Health Framework in February 2025 and surveys will be completed in April 2025 to ascertain the cost and delivery programme for necessary interventions to provide the required life extension. We will use this as the basis to submit our cost re-opener for unit A to Ofgem to request remaining funding allowances. We are intending to submit the cost reopener in the latter part of 2025.

Throughout the year we have had a series of engagement meetings with Ofgem covering the Wormington MCPD project and we will continue to engage with Ofgem in the run up to our cost re-opener submission later this year.

The project has also started to order long lead items ahead of the re-opener submission. The re-wheel has been de-scoped as the Process duty specification for the new unit, met the duty. The asset health side of the project has completed the surveys and are continuing to work towards the re-opener submission in December 2025.

Over the coming year we will work towards submitting the re-opener in December 2025 and progressing the project to Detailed design whilst waiting for Ofgem's feedback on the re-opener.



Capital expenditure continued

[redacted] plays a critical role in ensuring gas can enter and exit the NTS through the Bacton terminal, including the European interconnector connections. [redacted] Compressor Station is the only site on the NTS which can facilitate exports to Europe via the [redacted] and the site also plays an important role in moving gas away from [redacted] when supplies exceed demand. As the UK becomes more import dependent, it is critical that entry and exit capability and resilience is at the required level to ensure UK and South-East Security of Supply.

King's Lynn comprises four existing compressor units, two compliant [redacted] (disconnected) and Unit B (operational), which are non-compliant with MCPD. Unit B is over 50 years old and now operating well beyond its original design life. Failure to meet emissions legislation means that Unit B would be limited to 500-hours running per year, restricting the operation of the site.

We submitted the [redacted] Final Option Selection Report (FOSR) in January 2023, which identified our Final Preferred Option for compliance with MCPD. Ofgem published their final determination in November 2023, confirming that the existing Avon compressor unit will be retained under the 500-hour Emergency Use Derogation, with significant asset health investment to improve unit availability. To ensure operation mapping alignment across all site compressors, this option will also consider the case for a re-wheel of the existing [redacted] before or during FEED.

Over the past year, King's Lynn MCPD project has continued the development of the Final Preferred Option. We submitted a paper to Ofgem in June 2024 to seek approval for a proposal to do re-wheels on both units and the cost to subject to true up at the time of the re-opener which was approved. The re-wheel project has awarded a contract to Original Equipment Manufacturer [redacted] The contract has allowed all long lead items for the re-wheels to be ordered. [redacted] will be carrying out re-wheels on Unit C and D winter 2026. The MCPD Emissions project team have had several engagements with the Original Equipment Manufacturer (OEM) [redacted] to review the suitability of the current compressor performance against the latest process duty specification. [redacted] have provided a technical description of their re-wheel proposal; this includes a review of the current compressor wheeling against the latest process duty points. The benefit of the proposal compressor re-wheel is that all operating points can be achieved by the [redacted] units, reducing reliance on Unit B which will be placed on EUD regime from 2030. For unit B Asset Health works and unit A recommissioning, we have conducted surveys and confirmed our preferred option to include in the re-openers.

As part of our development and assessment of the MCPD delivery strategy, we have reviewed our submission timelines and identified the optimum timings to submit high scope and cost confidence re-openers. We submitted the cost re-opener for [redacted] MCPD in April 2025.

Compressor emissions - recompression

There has been a total of £0.9m spent on recompression this year, taking total project cost to £3.3m to year 4 2024/25.

The output for this investment will be claimed when the machines are delivered, operationally trialled, and accepted for operation. The investment is forecasted to deliver in line with Ofgem allowances.

2023/24 and 2024/25 both had significant progress on design and build of the machines with one machine recently passing its factory acceptance test and the second machine had factory acceptance testing carried out in April 2025.

The project is currently expected to deliver in line with Ofgem allowances for the design, build, and commissioning of the machines. The main risk that is still outstanding is process safety studies which could increase cost if additional equipment is determined to be required, but this risk was assessed and partly mitigated early in the project by reviewing a process safety study that was carried out on identical machines by a European gas transmission network operator.

Lessons learned from this project about the engine type approval were carried forward into the second set of machines that were purchased through the NZASP UM. Any lessons that are learned in the process safety studies for these machines will be able to be implemented early in the project lifecycle of the second set of machines.

Throughout the 2024/25 financial year, the manufacture of the new recompression machines continued.

[redacted] who are the compressor manufacturer and packager of the machine.

The subframe, trailer, compressor, and ancillary components were completed by LMF, and the components of the machine were assembled in their factory.

The high-pressure machine was factory tested on air in March 2025 and is now undergoing final checks before being cleared for delivery to the UK.

The low-pressure machine completed its factory acceptance test in April 2025 and will then undergo final checks before being cleared for delivery to the UK.

Process safety assessments and DSEAR inspections will be carried out on the machines when they arrive in the UK to gain approval for the machines to carry out operations on the NTS.

A plan is being developed for a commissioning trial of the new machines in summer 2025 whereby they will operate on a live recompression job alongside the existing recompression machines. This allows the commissioning trial to be carried out in the exact conditions that the machines will operate under when they are cleared for operational duty and mitigates the risk of encountering commissioning problems because the existing recompression machines will still be operating as they would normally.

Methane detection and quantification

Within the RIIO-T2 final determination we were awarded funding for the rollout of the Monitoring of Realtime Fugitive Emissions (MoRFE) continuous fugitive emission detection system.

In 2021/22 it was agreed with Ofgem, while working on a net zero re-opener submission, that methane detection and quantification needed to go beyond commitments made in the RIIO-T2 business plan. As such it was agreed that the funding awarded for MoRFE rollout would be more appropriately used for periodic detection equipment.

In line with this agreement, NGT placed orders for periodic leak detection equipment at the end of March 2023. This equipment was used during the 2023/24 reporting period to develop NGTs in-house fugitive leak detection capability and complete an initial seven compressor and terminal fugitive leak detection surveys in-house rather than using third parties.

In 2024/25 spend of £0.2m has been made to procure additional equipment as NGT has delivered the first year of three of the expanded periodic leak detection programme awarded in the Methane Emission Reduction Campaign (MERC) NZASP net zero re-opener application. This brings the spend to date in RIIO-T2 period to £0.5m, compared to allowances of £0.9m, with this appearing in the NLR capex spend table 6.1.

The funding has been used to purchase handheld instrumentation for the detection and quantification of fugitive gas escapes from ground level accessible pressurised assets. In addition, optical gas imaging cameras have been purchased for the detection and indicative quantification of fugitive gas escapes from elevated sources.

Within the reporting period this equipment has been used to deliver seventy-nine fugitive leak detection surveys against a required run rate of two hundred and thirty-seven to fulfil the delivery plan in the MERC re-opener. Delivery will be accelerated in years two and three to complete the measurement based fugitive emission performance baseline. Reduced run rate in year one can be attributed to the need to recruit into and train staff in the in-house emission monitoring team following MERC award.

Further spend is expected as delivery of the expanded periodic leak detection and repair programme continues to gather pace during the 2025/26 reporting period. We will continue to report progress in the following year's regulatory reporting pack.

Figure 31: Example of an optical gas imaging camera

Figure 32: Example of ground level accessible fugitive leak quantification by HiFlow sampler

Non load related capex – Asset health

Pipelines

The pipeline asset health programme delivers investment on the pipeline assets on the NTS that connect AGIs and terminals, aiming to maintain and improve their condition. Improving the lifespan of the current network is critical to maintaining low costs to consumers, as replacement of part of the network would entail extreme expense and a significant disruption to the UK economy. Throughout the programme, several techniques which measure degradation, integrity and mechanical characteristics are implemented together with any remediation regimes which could help in maintaining a safe, operational pipeline. These techniques are listed below:

- Pressure Systems Safety Regulations (PSSR) In Line Inspections (ILI): These inspections utilise advanced tools including Pipeline Inspection Gauge (PIG) to assess parameters such as wall thickness, geometry, and ground cover depth. The collected data informs our ILI Digs/ Interventions Programme enabling targeted remediations where necessary. Concurrently, compulsory PSSR inspections ensure the integrity of our PIG Traps and other pressure containing vessels on our sites.
- In Line Inspection Digs: Excavations are carried out at specific pipelines locations identified as having features of interest such as corrosion or dents, during ILI inspections. These characteristics are categorised and prioritised with remediation actions undertaken as needed including re-coating or the use of epoxy filled repair sleeves.
- Closed Interval Potential Surveys (CIPS) and Interventions: CIPS surveys evaluate the health and integrity of our Cathodic Protection (CP) systems, which act as a secondary defence against corrosion. Any identified CP defects are carefully analysed, and interventions are applied to ensure compliance with safety regulations and maintain the effectiveness of the CP systems.
- Pipeline Impact Protection: This includes measures such as Reduced Depth of Cover (RDoC), River Crossings and Nitrogen Sleeves. These strategies are implemented in areas where the pipeline is closer to the surface than expected, such as in ditches that have been extensively cleaned or eroded over time. Remediation actions can involve compensations to landowners, installation of proactive measures.
- Alternating Current Mitigation: Assessing the alternating current risk from overhead lines and other third party assets that induce current on the pipelines and can act as an accelerating factor for corrosion.
- Remote monitoring upgrade: Updating the previous 3G remote monitoring system to the mobile 4G network to avoid losing communication when the 3G networks are shut down.

Throughout 2024/25, a comprehensive series of inspections and interventions were conducted as part of the asset health programme:

Asset health theme	Subtheme	Volume interventions			
		2021/22	2022/23	2023/24	2024/25
PSSR	Pig Trap Defect Resolution - Minor	0	0	7	8
	Pig Trap Major Inspection	10	12	6	14
	Pig Trap Defect Resolution - Major	0	0	1	3
	Watercourse crossings defects	0	0	0	0
	Watercourse crossings (Duddon)	0	0	0	0
	Depth of cover defects	0	17	14	0
	Nitrogen Sleeve - Minor	0	0	5	7
	Nitrogen Sleeve - Grouting	0	0	13	0
	In Line Inspection	22	15	17	13
Pipelines	In Line Inspection Defects	0	58	61	52
	Cathodic Protection Digs	0	20	0	0
	AC mitigation	0	0	0	0
	Remote Monitoring	0	0	0	720
	Replace existing Transformer Rectifier	0	0	6	17
	Repair/Replace existing CP test posts	0	48	179	516
	Install new Transformer Rectifier	0	0	1	0
	CIPS for Capital Refurbishment	0	586.4	2960.4	1062.8
	OLI/4 Inspections	0	0	34.4	0
	OLI/4 Pipeline Defects	20	0	7	0
Total		52	756.4	3311.8	2412.8

Table 12: Asset Health Volume Interventions – Pssr, Pipelines

PSSR and ILI runs

During 2024/25 the National Gas Services team have delivered the RIIO-T2 plan for PSSR inspections on PIG Traps, Heat Exchangers and Filters. This includes work on minor repairs to PIG Traps and a PIG trap removal and replacement with temporary PIG trap pipework.

ILI runs

During 2024/25 National Gas performed the planned ILI run inspection programme. The inspections have been implemented on portions of pipeline which are driven by a risk-based approach, considering pipeline condition, criticality and performance of its corrosion prevention system.

ILI Digs

We have delivered all but 1 intervention volumes across all investments related to this UID in 2024/25. It is the second year that on site refurbishment teams have helped deliver pipelines scope that has helped to drive down unit costs from the start of RIIO-T2 by minimising mobilisation costs.

Pipeline Impact Protection

Delivery of scope has continued in 2024 but has slowed because of issues with the main works contractor which has increased costs and reduced the total delivery.

Close Interval Potential Surveys (CIPS)

In 2024/25, we delivered and claimed a significant volume of surveys, reaching 70% of our overall RIIO-T2 target for CIPS and all our OLI/4 surveys target. This is partly a catch up from work delivered last year but was not ready to claim. There are additional volumes to claim from work delivered in late 2024/25 because CIPS can have a 3-month post-survey review and processing of output claims. A much larger volume of test post work has been claimed than before and there are more volumes delivered but not yet claimed as the evidence is being compiled.

Closed Interval Potential Surveys (CIPS) interventions

Replacement transformer rectifier volumes have now had their first volumes claimed. There have been no CIPS digs claimed in this year as the follow up surveys are to be completed in 2025/26 autumn CIPS season but the full scope is still forecast to be completed by the end of RIIO-T2.

Alternating current mitigation

We are expecting to deliver all site reports by the end of 2026.

Remote monitoring upgrade

We have been delivering our plan for the replacement assets with contractor support. Whilst we have delivered significant volumes of replacement units, it is less than originally planned because of issues with the equipment provided from our suppliers requiring rework and delaying roll out.

These comprehensive inspections, interventions, and remediation efforts demonstrate our commitment to ensuring the health, safety, and reliability of our pipeline assets. By proactively implementing these techniques, we are able to effectively manage degradation, maintain operational efficiency, and mitigate the risks associated with pipeline infrastructure. This approach not only ensures compliance with regulatory obligations but also safeguards the interests of our customers and stakeholders.

Figure 33: The finalised front of boiler house 1

Figure 34: Perenco 1 pressure transmitters for the safety instrument system (SIS) voting system for final elements

Figure 35: Perenco 2 new Rotork actuators installed for closure of A2/3 valve as part of SIS

Figure 36: New SIS control panel installed in [redacted] switch room

Compressor

Compressor machinery, comprising the gas generator, power turbine, and centrifugal compressor, plays a critical role in our gas turbine-driven compressor units. In 2024/25, we focused on several key investments related to these components.

Centrifugal gas compressors

Compressors are integral to the transportation of natural gas through the NTS. Each compressor is driven by either a dedicated high-voltage (HV) electric motor or a gas generator and power turbine. All NTS compressors are of the centrifugal type, predominantly single stage but occasionally two or three stage where higher pressure ratios are required.

During 2024/25, work was completed on [redacted] all involving a dry gas and barrier seal change.

Asset health - compressor train subtheme	Volume interventions			
	2021/22	2022/23	2023/24	2024/25
Compressors	1	0	3	8
Gas generator power train	5	4	4	10
Variable speed drive	1	4	0	0
Vent system	0	0	0	5
Compressor breakdown	24	4	25	30
Total	**31**	**12**	**32**	**53**

Table 13: Compressor Volume Interventions

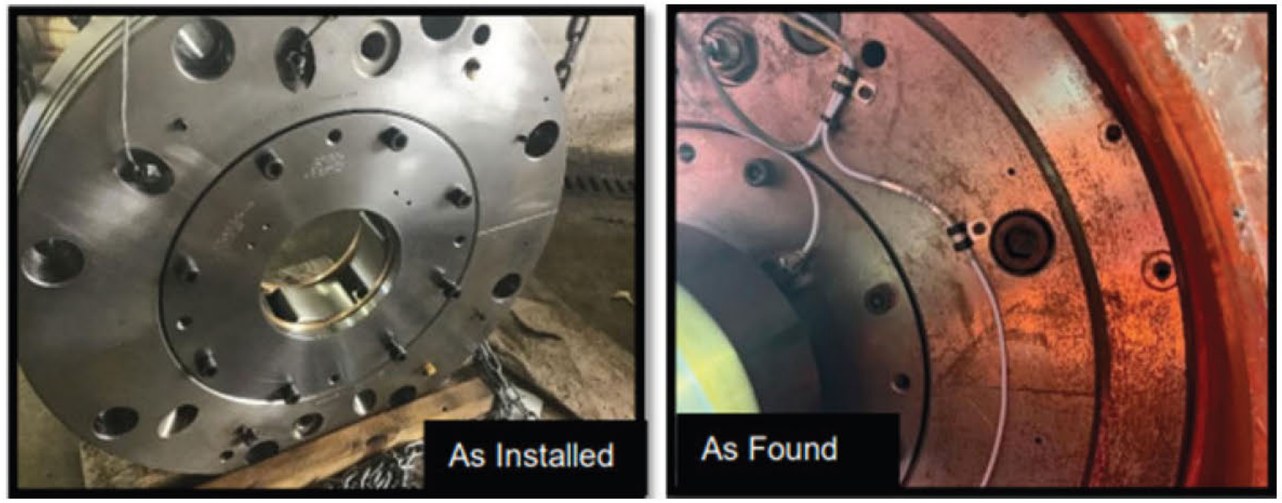


Figure 37: [redacted] Unit B Dry Gas Seal: On removal of seal gas vent lines, small amounts of oil contamination were identified.

Figure 38: [redacted] Unit B Dry Gas Seal - Seal cavity had presence of oil on removal of DGS, behind both the Inboard and outboard positions. To clean casing lines appropriately 5 Bar of Nitrogen was introduced, and a white cloth covering the other end, purging until clean

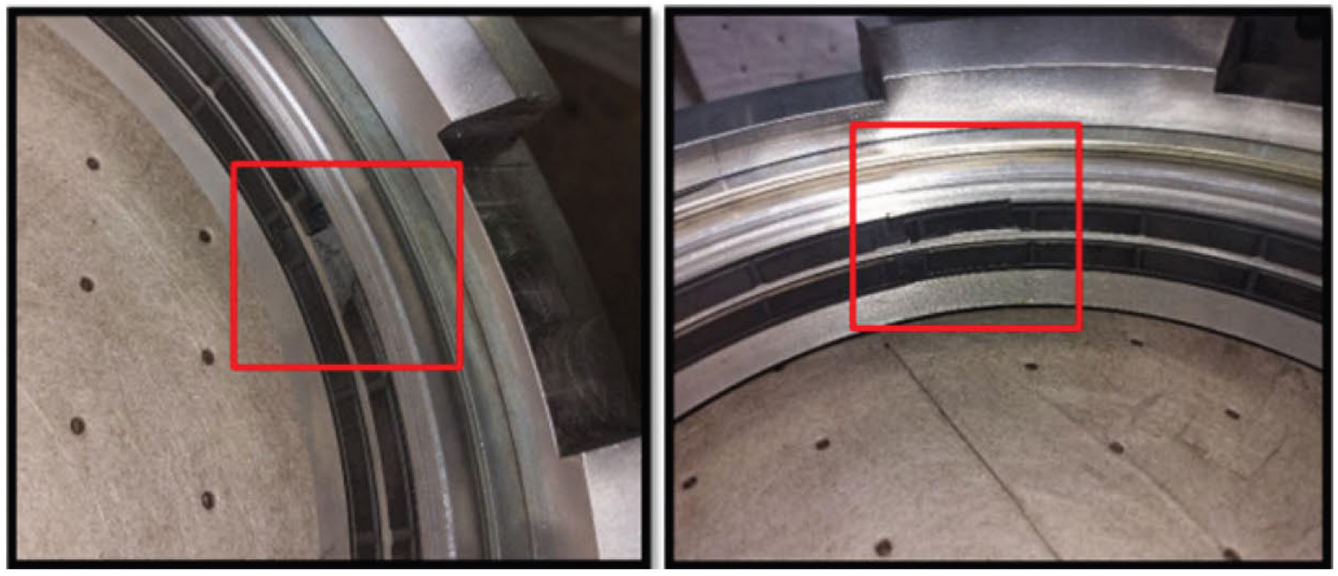


Figure 39: [redacted] Unit B Dry Gas Seal - All in-casing lines were cleaned and witnessed after identifying the carbon rings were oily on removal with some particulates/grit amongst the oil

Figure 40: [redacted] Unit 2A –: Bearing flange holes polished and tapped out and bearing assembly bolt showing new thread

Figure 41: [redacted] Unit 2A - DGS ports borescope and liquids drained before being installed

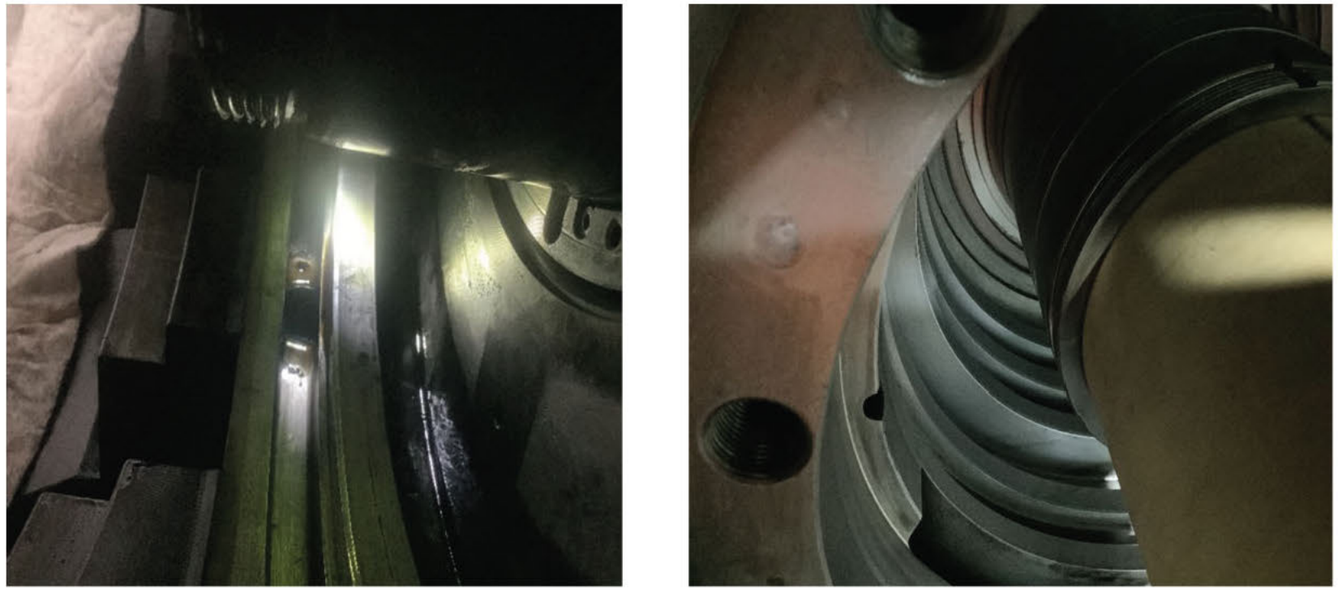


Figure 42: [redacted] Unit 2A - Oil found in barrier, secondary and primary seal cavities. Before and after cleaning and inspecting.

Gas generator

There are five different types of gas generator making up the fleet currently in operation across the NTS. In addition, we hold spare gas generators to provide resilience to the operational units. There are 66 gas generators plus 10 spares of five different types making up the National Transmission System fleet. The gas generators are a combination of light industrial and aero-derivative gas turbines and are monitored and maintained routinely through a series of work and management procedures carried out by our operational field force. Gas generators provide heated and pressurised exhaust gas that drives the power turbine which then drives the compressor.

Gas generator major maintenance interventions are typically carried out every 25,000 consumed hours, unless the annual borescope inspection determines that the condition has deteriorated to a point that early intervention is required. In 2024/25, we completed four gas generator overhauls out of the 15 volumes in the Final Determination. This brings our total number of gas generator overhauls completed over the RIIO-T2 period to 13.

In 2024/25, the gas generator at [redacted] Unit 2A was replaced with an overhauled engine due to running hours.

In 2024/25, a life expired engine from [redacted] Unit A was exchanged for an overhauled upgraded engine.

Most of the [redacted] fleet is in good condition following the overhaul of seven engines in the last three years of RIIO-T1, with two additional engines overhauled in 2021, and two in 2022. No work was carried out on the [redacted] gas generators due to all scheduled work in RIIO-T2 being completed in 2021/22.

Figure 43: [redacted] 2A - Inspection of new gas generator in container before being transported to package

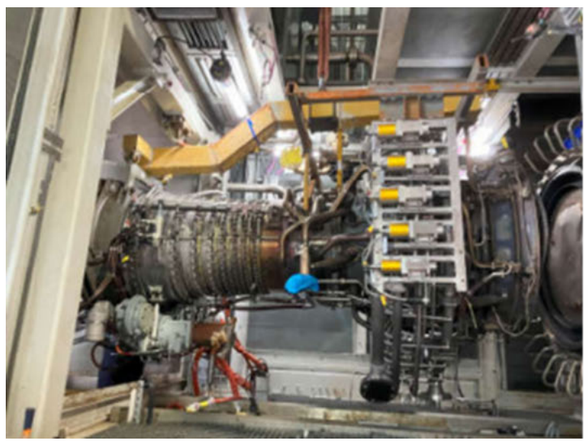
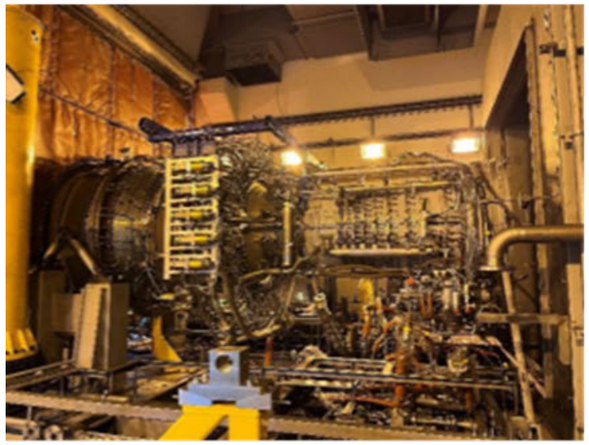


Figure 44: [redacted] Unit 2A - Removal of gas generator

Figure 45: [redacted] Unit 2A - Gas generator removed from container and installation in package in process





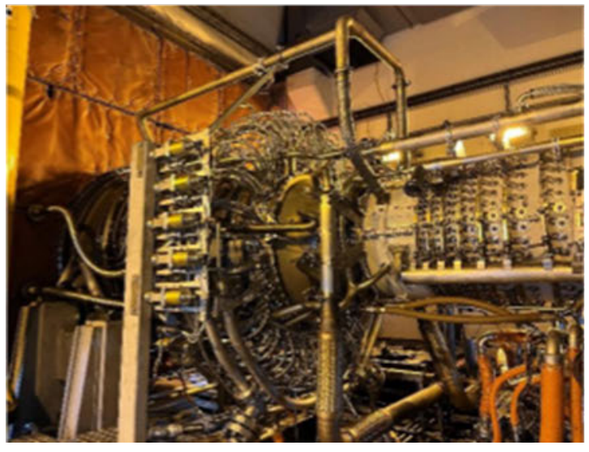
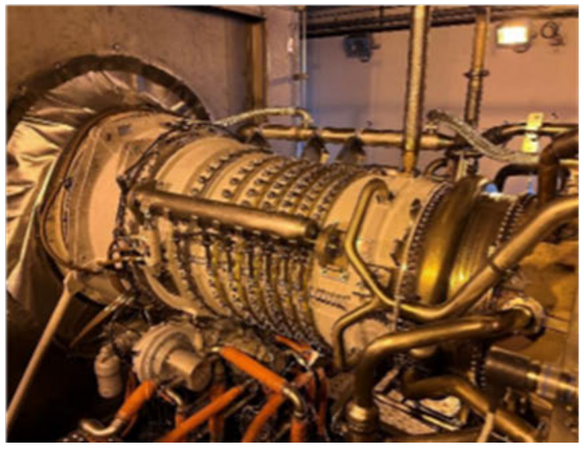
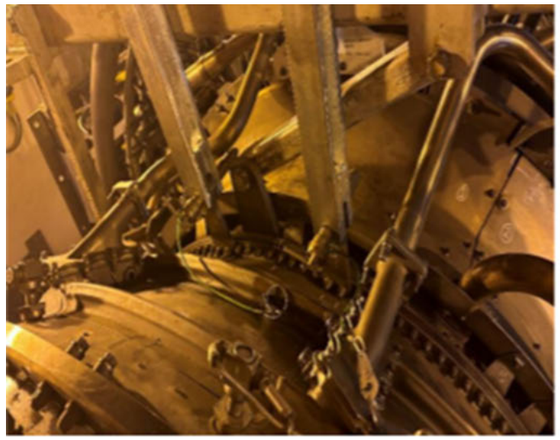
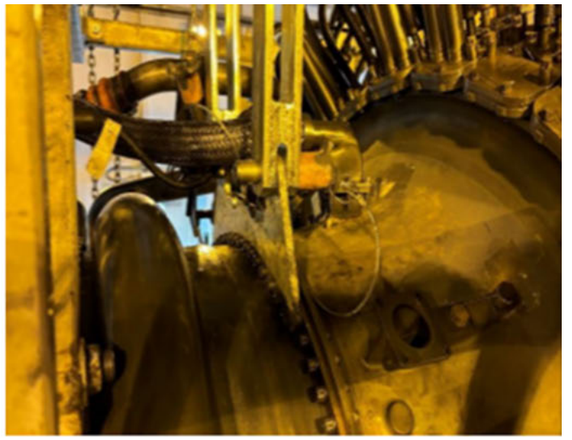



Figure 46: [redacted] Unit A – Installation of gas generator – new engine hoisted into package before being installed

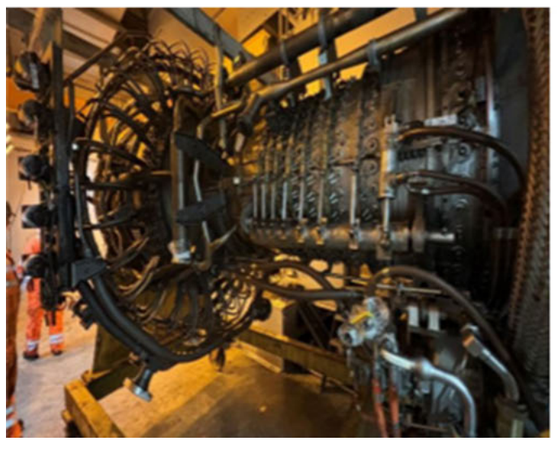
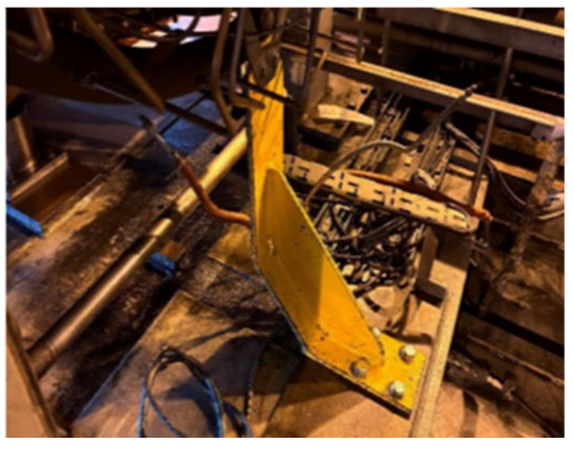




Figure 47: [redacted] Unit A – Removal of gas generator

Capital expenditure continued

Power turbine

Within the national fleet operating across the NTS, there are eight different types of power turbines. Additionally, we maintain spare power turbines to ensure operational resilience. Power turbines play a crucial role in converting the hot, pressurised exhaust gases from the gas generator into the torque needed to drive the compressor.

Maintenance and overhaul requirements for power turbines, like other components of the machine train, are influenced by factors such as run hours, number of starts, and installed time. In 2024/25, we completed three power turbine overhauls out of 13 volumes in the Final Determinations plan. This brings our total number of power turbine overhauls completed over the RIIO-T2 period to seven.

In 2024/25, one of the three overhauls we completed was the High Speed Power Turbine upgrade at [redacted] Unit 2A (Figure 48-51).

The second power turbine overhaul completed in 2024/25 was at [redacted] Unit B (Figure 52). This was originally scheduled for 2023/24, but the components required for the overhaul failed in manufacture. A temporary solution was put in place using spare part-life assets from a decommissioned unit at [redacted] The new components were successfully manufactured, and the overhaul was completed.

The third power turbine overhaul that was completed in 2024/25 was Unit A at [redacted]

Figure 48: [redacted] 2A – HSPT assembly removal and installation into shipping container

Figure 49: [redacted] Unit 2A – New HSPT installed on trolleys in package

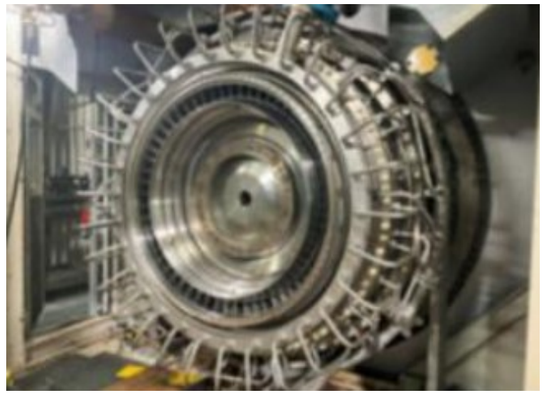


Figure 50: [redacted] Unit 2A – New HSPT installed in exhaust frame

Figure 51: [redacted] Unit 2A – Bonding baffle installation

Figure 52: [redacted] B – Nozzle was re-assembled with new set of nozzle segments, cooling air pipes (welded into position) all new consumables, locking plates, sealing strips and a new T/C stitch welded in place.

Electric variable speed drive compressors

The electric compressor systems are equipped with high-voltage supplies, typically at 132 kV, 33 kV, or 11 kV. Frequency converters (known as variable speed drives) are powered through dedicated converter transformers, supplying variable frequency and speed to the high-voltage motor. Harmonic filters are often used to ensure compliance with electricity distribution network operator (DNO) connection agreement terms and conditions.

The national fleet includes two types of high-voltage motors operating on the National Gas Transmission System. These systems consist of either a six-phase synchronous motor coupled to a centrifugal compressor (as discussed above) or a motor in pipeline compressor (MAN MOPICO) configuration. MAN MOPICO units feature an integrated pipeline-mounted induction motor connected to compressor units at either end, utilising magnetic bearings.

Within the compressor fleet, no variable speed drive (VSD) volumes were delivered in 2024/25

Electrical

The National Electrical Asset Health Campaign was initiated to review asset condition on a series of sites, agree prioritised condition-based interventions, tender, then deliver the programme of works utilising our existing procurement frameworks. These works entail differing interventions upon:

- High Voltage and Low Voltage switchgear
- Low voltage distribution systems
- Uninterruptible Power Supply (UPS) systems
- Battery charger systems and associated batteries
- Standby generator systems
- Power transformers
- Lighting systems

We are delivering the majority of the national electrical Asset Health within the compressor station national electrical campaign. A previous consideration to deliver a similar, but less complex, project for Above Ground Installations (AGIs) national electrical campaign was reviewed in summer 2024, then deferred for RIIO-GT3 considerations. Some AGI electrical works associated with compressor stations, where the AGI falls within compressor boundary, or close to it, remains within the Compressor station national electrical campaign.

We also have three other work streams delivering some volumes of electrical work:

- Area Form process
- [redacted] Electrical, Control, Instrumentation (ECI) delivery programme
- [redacted] Asset Health Campaign

A few minor electrical volumes reside as part of other bundled campaigns not addressed here.

In 2024/25, expenditure on our Asset Health electrical project has been £9m. Over the RIIO-T2 period we are currently forecasting to spend circa £21m on this project against a complete electrical allowance of £22.7m. We expect our total expenditure on electrical assets across the work streams to be in the region of £29m, with any NARM related work being managed as part of our overall delivery programmes to efficiently deliver our network risk outputs.

Our forecast remains largely aligned to 2023/24, and we are expecting to deliver less volumes on some interventions whilst delivering greater volumes of other interventions. A number of factors influence this, some associated with costs in the marketplace and others more closely aligned to the technicalities associated with the investment and the outline assumptions on deliverability of work types that we have not previously undertaken on an asset health basis. Our intervention prioritisation has remained focussed on asset health condition and associated compelling need.

In the previous reporting period we had intended to deliver additional work identified for our AGIs. We had previously undertaken a condition assessment of a number of sites resulting in around a third of these being identified for Asset Health intervention. We have continued to experience problems with resourcing staff positions to manage additional works. We therefore, opted to postpone these AGI works and have passed this information for inclusion in our Draft RIIO-GT3 submission, of which it makes up a considerable proportion of the interventions.

During 2024/25 the main works continued for the Compressor station national electrical campaign. Examples of the work delivered are shown in the following figures 53, 54 and 55.

Figure 53 – [redacted] 2024/25)

Figure 54 – new road lighting with old still in place (awaiting removal)

Figure 55- [redacted] Voltage switchboard (Air Circuit Breaker section) being delivered to site

We have been fully engaged with our Main Works Contractor during all design, build, testing and commissioning phases, working alongside them to ensure that the necessary Quality Control in documentation processes meets our internal requirements.

The information gained as we entered each new phase has resulted in slight alterations to approach and intervention types in order to de-risk project delivery whilst ensuring the long-term viability of the technical solution delivered. This intelligence continues to be incorporated into our RIIO-GT3 plans.

As some of the interventions on upstream supply equipment are necessitating interfaces with Distribution Network Operators (DNOs), we are experiencing changes in the interface landscape in the years since many of the sites and assets were built. Working with DNOs and their supply assurance advice allows us to make informed choices on the intervention solutions.

An example of such an interface discussion typically impacts those sites where we are undertaking transformer works. We had initially considered changes of ownership of our assets such that we no longer owned the transformer and the supply arrangement to ourselves was intended to be Low Voltage (LV) type rather than High Voltage (HV). DNOs have explained what this entails on upstream connections and we have reconsidered our capacity agreements and security of supply requirements resulting in a need to retain our HV connections with the subsequent change to our work mix to maintain stable risk profile.

The UK labour market remains particularly competitive, with recruitment and churn in key stakeholder departments presenting an ongoing challenge. As such we continue to be mindful of our own capacity constraints and work remains actively ongoing to recruit skilled electrical engineers into a number of vacant positions immediately associated with electrical projects.

Cost run-rate on our Asset Health electrical project remains within our expectations for these works at the commencement of the 2024/25 reporting period – these costs remain aligned to our earlier findings from contractor tenders: with some marginally favourable to our unit cost assumptions whilst others considerably more expensive than our original working assumptions.

Cost increases are emerging on other electrical works that we have ongoing in a combined delivery project at [redacted] Compressor Station. These increases are being driven by technicalities associated with the scope of the project and the resultant consequential scope impact following design analysis. At Lockerley, the electrical interventions, along with the machinery interventions require to be delivered in the same outage window. The electrical volumes at [redacted] compressor will not be in built during 2025/26.

Some minor electrical works which are less technically involved are being undertaken by Operational teams. Delivering these types of works using operational teams has the benefit of bringing enhanced project control and improved efficiency. Examples of these projects include the replacement of battery systems, replacement of light fittings not entailing major civil works, and replacement of component parts of other electrical systems.

In the reporting period we had intended to have completed around 75% of our electrical volumes by the end of year 4 reporting period. Current completion rate is circa 60% completion over the full regulatory period, with similar rates of work forecast in year 5 of RIIO-T2 to those delivered in year 4.

We will continue to progress minor electrical interventions with Operational teams to maximise efficient delivery.

No further electrical asset health works are forecast for delivery at [redacted] in RIIO-T2.

Volume interventions				
Electrical - Sub theme	2021/22	2022/23	2023/24	2024/25
Auxiliary equipment	0	0	1	2
Distribution board	0	0	9	24
Uninterruptible Power Supply	0	2	3	4
Battery charger	0	0	3	3
Small power	0	0	0	3
Battery	0	2	9	9
Lighting	0	0	10	16
Transformer	0	0	5	0
Switchgear	0	0	0	5
Standby generator	0	0	0	1
Total	0	4	40	67

Table 14 – Asset health electrical PCD volumes delivery

Capital expenditure continued

GRAID

The Gas Robotic Agile Inspection Device (GRAID) robotic platform was designed and built to inspect unpiggable transmission assets during live gas flow conditions and has previously been funded under the NIC and NIA mechanisms.

Further innovations were commissioned to both improve the accuracy and quality of the generated data from the onboard sensors, concluding with the discovery of new challenges that affected their performance. To use the new prototypes, at least 80 bar of pressure was required. As this is not seen on our ground installations, an alternative sensor package was required for the robot. In the short term, a return to the known good configuration of the original sensors has been driven forward, with plans to invest in new upgrades in RIIO-GT3.

This year has represented a challenging year for GRAID, but has resulted in considerable steps forward in readiness for RIIO-GT3.

Original plans for the construction of twenty new connection points (revised to seventeen in 2024) in the RIIO-T2 period were disrupted by interruptions to the supply chain, and unforeseen changes to other schedules impacting the planned construction operations. To construct and connect a new endpoint a network outage or isolation is required to ensure that the work is completed safely. The GRAID Connections project had planned to capitalise on already-scheduled outages to allow the work to be completed with a minimum of disruption. However, a majority of the outages on which the construction schedule depended were moved or cancelled in favour of other operations, making construction impossible without a dedicated outage, for which operational resource was not available. All of the seventeen points remained scheduled for construction, but a new schedule has had to be adopted, with only a portion of the points to be constructed in RIIO-T2 and the rest in 2026. This change to the schedule has been agreed with Ofgem, and is the primary driver behind the considerable underspend of the GRAID Connections funds in 2025. The majority will now be spent in 2026.

Despite this setback, work has continued on the GRAID robot and its logistics in order to make the most effective use of the time and resources the project will have available in RIIO-T2. The robot's maintenance and upgrades have been completed by the manufacturer, maintenance on the launch vessel is being completed by National Gas Services (NGS), and agreements have been finalised to train NGS operatives in the operation, care and handling of the robot. NGS have taken on additional specific resource for this role, with a view on the long-term upkeep of the robot once GRAID enters BAU under the NGS portfolio in RIIO-GT3.

To assist with the training of operatives, and to help rectify the gap in evidential data caused by the lack of new construction points in RIIO-T2, we intend utilise the time to deploy the robot in follow-up measurements on the existing connection points constructed during the GRAID NIC project. These deployments will be used as a final field test for the newly-trained operatives, as well as proof of effectiveness of the upgraded robot and launch vessel. The new connection points will subsequently enjoy the deployment of a robot known to be effective, by operators experienced and confident in its operation. Support will be provided by the manufacturer on a tapering basis that will leave NGS in full control of the GRAID platform in RIIO-GT3.

Above ground installation (AGI): including valves, plant and equipment, and structural integrity

The Asset Health categories of Plant and Equipment (P&E), Valves and Structural Integrity are primarily addressed through our National AGI Renovation Campaign (NARC), and as a result, they are grouped together in this section.

Valves play a critical role in the National Transmission System (NTS), ensuring the safe flow of gas and providing necessary isolation for operational and integrity related interventions.

Together with associated P&E and structural integrity assets, it is imperative to proactively maintain these assets to mitigate risks, avoid adverse impacts on the NTS safety, operations, and availability. Also, to ensure compliance with legislative requirements.

The P&E subcategory encompass both above-ground and below-ground pipework and related assets on the NTS. In addition, some P&E works fall under other investment programmes, such as Asset Health works at [redacted] as well as works delivered by Operations.

The valves subcategory includes actuators and associated equipment for local, remote, or process-operated valves. Further valve campaigns that do not align with the National AGI Renovation Campaign (NARC) delivery model, due to their specific delivery requirements, were delivered in year 4. This includes the Non-Return Valve and Actuator campaign managed by Operations.

The Structural Integrity assets support our pipelines and sites to ensure they are safely operated, protected and limit the environmental impact of our assets. These assets include site access, drainage, ducting, pipe supports, pits and pit covers, plinths, and security fences on National Gas Transmission AGIs.

Our RIIO-T2 business plan encompasses a proactive intervention programme for the Plant and Equipment, Valves and Structural Integrity assets. The sites and assets included in the project scopes have been surveyed, and interventions have been selected and prioritised based on risk assessment.

These investments form an integral part of our RIIO-T2 programme to manage network risk on our AGI assets, aligning with the NARM output as outlined in our business plan.

Our investments over the opening four years of the price control have resulted in a total of 2,942 intervention volumes. In the 2024/25 delivery year, we completed 1,190 volumes, which is similar to prior year. These interventions were funded through Baseline Asset Health allocations across the P&E, Valves, and Structural Integrity themes, as well as the Uncertainty Mechanism (UM) for P&E investments (see Table 15).

National AGI Renovation Campaign (NARC)

NARC works are strategically assigned to deliver most efficiently through NGS or tendered to external MWCs, depending on the size and nature of the project.

NGS primarily focuses on refurbishment scopes using innovative techniques, while replacement scopes are tendered to external MWCs. Operations will also be involved in the self-delivery of additional campaigns that fall outside the NARC model, where they can execute less-complex scopes more efficiently than MWCs. The aim is to deliver more work

Asset health theme	Subtheme	Volume interventions			
		2021/22	2022/23	2023/24	2024/25
P&E	Above ground pipework	15	32	176	70
	Pipework protection	13	31	0	69
	Cathodic Protection	0	0	1	0
	Cladding replacement	0	0	2	3
	Filters/ scrubbers	12	17	13	9
	Flow or pressure regulators	0	0	15	13
	Preheaters	0	9	19	14
	[redacted]	0	0	0	10
Valves	Actuators	8	22	97	81
	Flanges	0	0	0	0
	Valve refurbishments and replacement	44	56	189	161
	Valve removal	1	3	6	54
	Valve new additions	0	0	67	13
	Non-return valves	0	0	4.4	18
	[redacted]	0	0	0	3
Structural Integrity	Drainage	5	4	5	0
	Ducting	3	3	7	5
	Pipe Supports	35	68	445	579
	Plinths	8	17	0	0
	Security	10	12	93	23
	Access	11	3	79.1	23
	Buildings	0	1	52	11
	Fuel tanks and bunds	6	3	29	0
	[redacted]	0	0	0	31
Total		171	281	1300	1190

Table 15 - Asset Health P&e, Valves And Structural Integrity Pcd Volumes Delivery

in-house through Operations and National Gas Services and build this capability.

Our chosen delivery approach involves bundling interventions across Valves, Plant and Equipment, and Structural Integrity asset health themes at AGI sites. By creating these discrete bundles of work and aligning them with decommissioning efforts, we can achieve cost efficiencies and maximise the utilisation of network outages. Tailored tenders are issued for each delivery strategy, distinguishing between internal delivery and MWC involvement.

Our RIIO-T2 strategy aims to align NARC outage works with in-line inspections (ILI) dig programmes and outage schedules, enabling efficient bundling, optimising outage schedules, reducing recompression requirements, and minimising customer disruption.

Site surveys were conducted by the AGI team with support from NGS depots for valve investigations and external contractors for tasks like Cathodic Protection Insulation Joints (CPIJ) investigations, 3D point cloud scanning, and feasibility analysis. Funding approvals were based on a comparison of delivery costs and the long-term risk-benefit analysis.

Following surveys completed, selection of sites delivered in the 2024/25 period focuses on prioritising sites with a high number of known defects and specific plant statuses.

NARC has continued its accelerated momentum from Year 3 (2023/24), supporting the delivery of asset health works across the NTS in 2024/25. Through the NARC22, NARC23, and NARC24 campaigns, a total of 1,190 volumes have been delivered across 132 sites this year. This maintains the pace of rapid intervention seen in Year 3 (129 sites), compared to Year 2 (54 sites) and Year 1 (28 sites), reflecting the campaign's steady growth and impact. The 2024/25 volumes delivered account for 28% of the total RIIO-T2 forecast, highlighting continued momentum and meaningful progress.

Within the Structural Integrity asset theme, 672 volumes were completed across 59 sites in 2024/25. 302 volumes focused on Major refurbishments on concrete and steel pipe supports at AGIs, access platforms & stairs relieving. 281 minor works were delivered on fixed access equipment, access roads and pavements, ducting, and relieving of Pipe supports and pits to maintain integrity of the assets. An additional 49 volumes targeted the monitoring and replacement of access roads, drainage, and spring hangers.

A full technical and risk assessment was also carried out at 4 sites, resulting in the delivery of 37 monitoring volumes for Structural Integrity assets. These surveys will inform the assessment and selection of intervention options ahead of conceptual design and delivery in RIIO-GT3.

A total of 35 actuator interventions were delivered through the Actuators Campaign across [redacted] throughout 2024/25 with further interventions planned for Year 5.

In the non-return valve (NRV) campaign, eight interventions were delivered across [redacted] Further interventions have been scheduled to be delivered in Year 5 in line with 2025 summer outages.

Example of works completed at Eastcroft:

Future NARC development

Through the execution of NARC24 and our forward-looking strategies, we remain committed to maintaining the integrity, reliability, and safety of our assets while efficiently utilising resources to deliver value to our stakeholders and customers.

Following site surveys and careful risk-based prioritisation our intervention priorities for the final delivery year of the regulatory reporting period are currently in design and procurement stages or at site mobilisation.

Other Asset Health - Stopples

Stopples are an effective intervention technique that enable intrusive works while keeping the plant live. At [redacted] a site with significant access challenges, works began in 2023/24 and were successfully completed in 2024/25. Additional stopple interventions delivered in 2024/25 include [redacted] and [redacted]. The delivery plan for 2025/26 includes two further stopple interventions at [redacted] building on the successful application of this technique and lessons learned to date.

We continue to explore alternative isolation methods, such as the Remote Techno Plug and BICEP tools, which will be adopted where appropriate. These advancements support our commitment to improving operational efficiency and ensuring seamless delivery of future interventions.

[redacted] site terminal redevelopment

Structural Integrity – baseline asset health (civils)

Surveys were carried out at the end of FY2024/25 to inform the remedial work required to be undertaken. This included surveys on buildings, roads and pathways, fixed access equipment, site drainage, pipe supports and pits, fuel tanks and bunds.

[redacted] terminal redevelopment – uncertainty mechanism asset health

In February 2024 we submitted our FOSR setting out our preferred option of Base Case Asset Health (Option 1) - Retaining the site in its current configuration with an asset health and replacement programme. We subsequently submitted the cost re-opener in October 2024, in line with a revised earlier re-opener window agreed with Ofgem. This means that within the financial year we have fully delivered the Price Control Deliverable (PCD) for [redacted] Terminal Site Redevelopment. Our expenditure forecast for progression of design works for the selected option is forecast to be under the Baseline allowance for the FEED studies.

Indicative spend against the critical valves, low voltage and cathodic protection work elements aligns with the Ofgem cost submission and shows spend throughout RIIO-GT3 and into RIIO-GT4 at present.

The October 2024 cost re-opener also included a request to either hand-back or true-up some the Asset Health Plant and Equipment UIDs aligned to [redacted], and a request to true-up one of the Asset Health Cabs UIDs aligned to [redacted]

Initial SQs were received from Ofgem in December 2024 for the cost submission and engagement with Ofgem is ongoing whilst we await draft determination.

In addition to the [redacted] Terminal Redevelopment FOSR, we submitted two EJPs under the Asset Health re-opener in June 2023, for work at [redacted] that was not known at the time of the RIIO-T2 submission.

[redacted] terminal filtration enhancement

We submitted our Need Case and Option Selection for [redacted] Terminal Filtration Enhancement in the January 2023 re-opener window, and the EJP in the June 2023 window.

Following indication that funding for the proposed Feeder filters would not be supported, this work is not progressing and costs have been included as part of the Terminal Redevelopment FEED study.

The incomer filtration enhancements have been completed and the outputs were claimed in 2024/25 financial year, and we continue to use them as operational mitigation for the impact of dust. However, this is limited to a 40% maximum by the capacity of the ring main and reduces operational flexibility of the site.

[redacted] overpressure protection – uncertainty mechanism

Improvements to the protection systems on A1, A2 and S4 were completed by September 2024, with the full forecast cost in line with the total installed cost estimate in our EJP submission.

[redacted] stakeholders

Stakeholder engagement has continued to inform and support the [redacted] Terminal Redevelopment cost re-opener in October 2024.

Boiler house 1 and 2 boiler decommissioning – baseline redundant assets

Removal of the boilers in boiler house 1 and boiler house 2 were completed by December 2024, with the full forecast cost in line with our redundant assets baseline funding (Figures 58, 59, 60).

Figure 58: Boilers being removed from boiler house 2.

Figure 59: Open space where the boiler previously sat in boiler house 2.

Figure 60: Finalised front of boiler house 2.

Cab Infrastructure

For RIIO-T2 we established a rolling campaign to bring our Cabs into compliance with current gas turbine safety standards, BS ISO 21789 and T/SP/COMP/33 which looked to remediate deterioration over a 10-year period. The proposed interventions on 30 Cabs across the National Transmission System (NTS) are balanced between refurbishment and replacement from robust condition-based assessments to extend the life of the assets by 30 years. This is unless the unit is in the decommissioning plan for RIIO-T2 or RIIO-GT3, in which case only safety and operationally critical work is carried out. To achieve this, we have developed key investment drivers:

- **HSE Publication PM84**: The HSE guidance note, known as PM84, along with the more recent BS ISO 21789 standard, addresses the risks associated with gas turbine enclosures. While most compressor cabs were constructed before the publication of these standards, the following scoped elements have been identified as measures to reduce risks: refurbishment of Cab Exhaust System, Air Intake System, Cab Ventilation System and Cab Structure (including Gas Detection).
- **Fire Suppression Systems**: Fire suppression is the final element of the fire and gas system designed to protect the asset in the event of a fire. However, due to the age, condition, and design of some of our systems, they are no longer adequate and require investment to enhance their integrity.
- **Emission Sample Lines:** Upgrades to emission sample lines are driven by Environmental Agency Legislation requirements for homogenous emissions sampling of gas turbines, ensuring compliance with the IED. These upgrades are necessary to achieve compliance and eliminate any non-compliance issues.

In 2024/25 we have undertaken physical delivery of Cabs Infrastructure works and delivered nine refurbishments across four sites:

- [redacted] - Fire-fighting replacement
- [redacted] Ventilation refurbishment
- [redacted] - Cab minor refurb
- [redacted] Exhaust
- [redacted] – Fire Suppression
- [redacted] - Ventilation minor refurb
- [redacted] - Exhaust

Preparatory Work

In addition to the infrastructure works, this year we have completed the Cab Infrastructure surveys at all sites in readiness for RIIO-GT3 delivery. FEED for [redacted] commenced in February 2025 to develop design for 2026/27 delivery.

We have completed the following preparatory works for Cabs for this period:

- Detailed Design for [redacted] Unit B to progress to build in FY26 .
- Detailed design [redacted] Unit A & B fire suppression progressed for delivery in FY26 .
- Detailed design progressed for Ventilation scopes at [redacted] for remobilisation in FY26

The scope development involved undertaking intrusive and non-intrusive site surveys, understanding asset functionality, developing Feasibility Design to outline the full extent of scope that encompasses Hardware replacements, modifications on each site to address remedial works and upgrading functionality of the replacement assets interfacing with existing plant.

As part of Ofgem's RIIO-T2 Final determinations we were awarded a Cab Infrastructure allowance for the first three-year years of the price control and further allowances following subsequent submission of the 'Cab Infrastructure and Fire Suppression Engineering Justification Paper' to Ofgem as part of the June 2023 Asset Health re-opener requesting allowances for Years 4 and 5 delivery. We worked closely with Ofgem to address supplementary questions and resolve issues, leading to the successful final determination of the re-opener in December 2024.

These comprehensive initiatives in Cab Infrastructure demonstrate our commitment to ensuring the safety and compliance of our gas turbine compressor cabs. By addressing compliance issues, we are actively enhancing the integrity and reliability of our cab infrastructure assets. These works not only contribute to the safety of our operations but also ensure compliance with environmental regulations, resulting in a robust and reliable gas transmission network.

An example of Exhaust replacement can be seen in **Figure 57**.

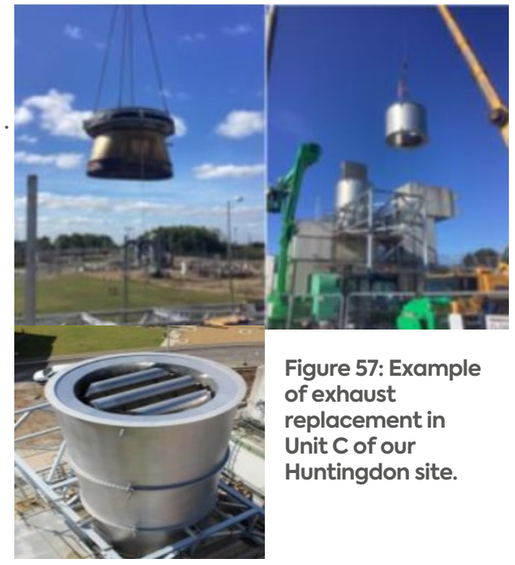


Figure 57: Example of exhaust replacement in Unit C of our Huntingdon site.

	Volume outputs			
Asset Health Intervention Type	2021/22	2022/23	2023/24	2024/25
Air Intake	5	1	2	0
Cab Ventilation	5	1	1	2
Cab Structure	3	3	6	2
Exhausts	5	4	1	2
Fire Suppression	4	0	6	2
Total	22	9	16	8

Table 16: Asset Health - Volume outputs by intervention type

Non-operational capex

This section covers our TO and SO non-operational capex, which includes:

- Small tools, equipment, plant and machinery (STEPM)
- Non-operational property
- IT and telecoms
- Vehicle fleet

TO non-operational capex

In 2024/25, our RIIO-T2 non-operational capex (TO) spend was £18.0m (excluding small tools, equipment, plant and machinery - STEPM), which was £2.6m above 2024/25 allowances of £15.6m. Cumulatively, our spend of £64.8m is £9.4m below allowances of £74.2m.

IT (TO) baseline programmes - £11.0m spend. This continues to track lower against our allowance of £12.2m and £43.6m cumulatively for years 1-4 against allowances of £59.6m. The significant driver of this cumulative underspend is costs being expensed under SaaS (Software as a System) accounting rules. For example, in year 4, £7.0m of project spend was incurred within our IT operating costs. Totex spend on projects increased year on year as delivery of our business plan commitments ramped up through the conclusion of the separation from National Grid within the financial year.

Underspend against allowances of c.£10m is forecast across the five year horizon which is largely driven by the impact of SaaS and cloud computing related spend that has to be expensed under our accounting policies. This underspend will be offset by higher spend in indirect operating costs with all IT (TO) baseline programmes expected to deliver their business plan commitments in full.

Vehicles and Property - £7.0m spend. This was £3.6m higher than allowances and largely relates to one off costs on property sites such as [redacted]CEME (Centralised Emergency Materials and Equipment) Site Refurbishment.

In 2024/25, spend of £1.6m has been applied against our submitted Non-Operational Capex Uncertainty Mechanism. Cumulatively this totals £3.1m, against awarded allowances to this point of £3.7m. We expect to be in line with allowances at the end of year 5.

SO non-operational capex

In 2024/25, non-operational SO capex baseline programme spend was £23.6m, which was £3m lower than our Year 4 allowances. Cumulatively, our RIIO-T2 spend is £77.8m against allowances of £109.7m.

This variance was principally driven by lower spend in IT capex, with the drivers for this being savings realised on the Gemini programme and increased spend expensed under SaaS accounting rules. In year 4 specifically related to SO (both operational and non-operational projects) we incurred £4.7m of project spend within our IT operating costs. Totex spend on projects increased year on year as we ramped up delivery of our business plan commitments as we concluded our separation from National Grid within the financial year.

Our RIIO-T2 SO Capital Expenditure forecast indicates c.£28m of underspend against allowances over the five year period. This is driven by further expected savings on the Gemini programme, cumulatively c.£18m, driven by efficiencies expected from implementation of the new platform and the impact of SaaS and cloud computing related spend that has to be expensed under our accounting policies (this will be offset by higher spend in indirect opex).

In 2024/25, spend of £5.1m has been attributed against our non-operational capex Uncertainty Mechanism. Cumulatively this totals £8.7m against allowances to this point of £18.1m, largely due to a minor delay in hardware delivery. We expect to be in line with allowances at the end of year five.

Non-operational capex – small tools, equipment, plant and machinery (STEPM)

In 2024/25, total STEPM capex was £5.9m, which is £1.2m higher than year 4 allowances, largely due to a £2m increase in strategic spares year on year. This has been driven by procurement of spares, associated with compressor units and strategic pipework.

Our spend in the first four years of RIIO-T2 has totalled £16.6m against allowances of £18.5m, with our current 5-year RIIO-T2 forecast remaining in line with allowances.

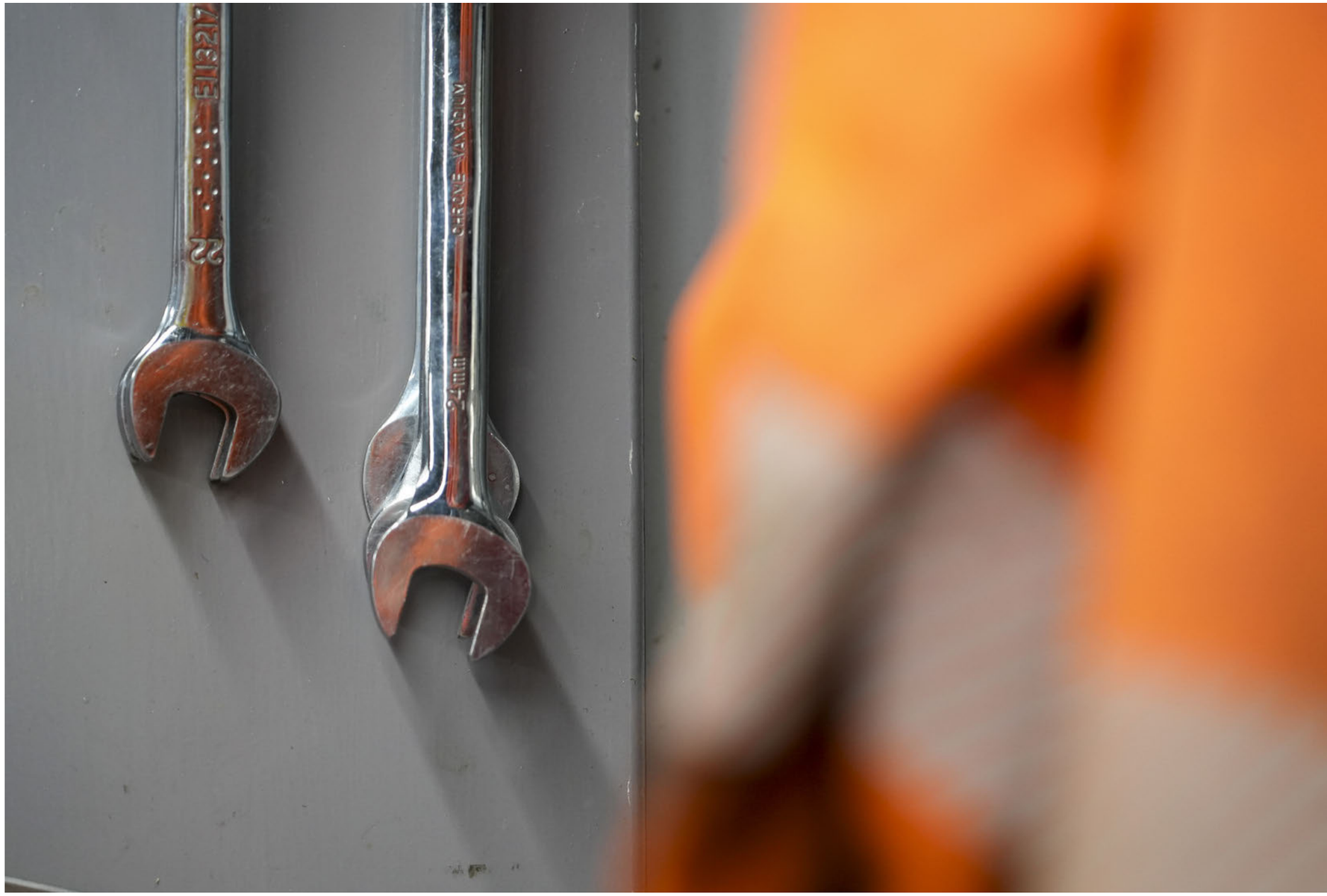
Non-Operational Property

Non-operational property is made up by the core estate excluding any operational sites such as compressor stations etc. Following separation from National Grid, the core estate now includes [redacted]

Non-operational property allowances are also utilised for capital investment works (including refurbishment) at operational sites as there no separate RIIO-T2 operational property allowances. 2024/25 works include [redacted]

In 2024/25, non-operational property expenditure was £4.9m compared to £1.7m in 2023/24. This covers site refurbishment to ensure sites are in a state to protect our people and assets from damage and weathering. This spend has been across our portfolio with the largest sites refurbished in 2024/25 being [redacted]

Cumulatively we have spent £16.4m against allowances of £9.4m. Our TO allowance for RIIO-T2 is £10.8m and we expect to spend this.



Non-operational capex - IT and telecoms

During the year we successfully completed our IT separation from National Grid and have completely moved to our new IT landscape. This new IT landscape has enabled both the change required to deliver separation and the change required to deliver not only our RIIO-T2 commitments, but also preparing the springboard for upcoming RIIO-GT3 commitment delivery.

Our Cloud IT infrastructure enables new solutions with embedded security, both in-house and SaaS (service as a subscription) solutions, to be added quickly and efficiently to our IT landscape. Our multi-cloud strategy is enabling us to move workload around between hyperscalers; (large scale data centres) ensuring economies of scale, reduced risks for platform failure and provide resilience.

Given the wider IT context and cybersecurity challenges, we will continue to review our security posture. The challenge is in the balance between open systems and access to data, and the need to continue to assure the safety and security of National Gas systems and data.

Supporting this, we are also increasing the diversity of our networks. As we've moved away from reliance upon physical network design and Virtual Private Netowks (VPNs) to alternative approaches, we are able to support a much wider selection of commodity networks, including Low Earth Orbit (LEO) connectivity. Over the next twelve months, we will look to ensure that we increase the diversity of our suppliers in this space as we continue to exploit and build upon the capabilities that the technology brings, particularly to an organisation that has a widely distributed asset base.

Commercial, regulatory and markets

Gemini application provides a platform for our customers to efficiently optimise their operations, facilitate market activities, increasing competition and market liquidity, resulting in lower bills for end consumers.

Gemini Sustain Plus was a 2-year programme designed to maintain and enhance the existing Gemini application. We addressed external user requirements and resolve pain points identified by National Gas and the wider industry customer base, with the aim of improving overall performance, usability, stability of the application and was successfully delivered in March 2025.

The new system was completely redesigned, hosted on [redacted] with a new Database, new User Interface (UI) and new microservice-based architecture. The implementation managed with seamless data migration, minimal system outage and establishing Interfaces and Application Programming Interfaces (APIs) to existing systems and new databases.

The regulatory driven Gemini System Enhancements programme delivers changes to the Gemini system to reflect industry-driven regulatory requirements, keeping it compliant with regulator and market obligations. These changes can also impact non-Gemini systems to support information provision and operational processes, including MIPI (Market Information Provision Initiative) and GCS (Gas Control Systems).

Summary of changes from 2024/25:

- System updates to support new clearing house role and transactions through single-sided nominations.
- Implementation of changes to update email addresses held within Gemini and Gemini Exit systems, supporting the separation from National Grid.
- System updates to correct the calculation of overrun charges where the system was incorrectly using indicative values to feed into the overrun calculation.
- Solution updated for removal of manual reconciliation process and reputational damage.
- Delivered changes allowing parties to move the fixed price component of existing capacity from [redacted] (Aggregated System Entry Point) to Rough Storage ASEP for a six-month winter period, like previous modifications (UNC 846 and 817).
- Change analysed through discovery phase to be delivered in FY26
- Decommissioning of legacy files from EFT (Entry Flow Telemetry), set-up transitional VPN to ensure continued business access to Gemini and managed FWACV (Flow Weighted Average Calorific Value) migration activities.
- Delivery of required exchange rate ratio data corrections, completed ahead of December deadlines.
- Changes analysed and preparation for FY 26 delivery.

Optimised system operations

The gas control suite refresh went live December 2024. It was a delivery of a suite of applications hosted in the Critical National Infrastructure (CNI) data centres which enables the National control Centre (NCC) and other system operations teams to control, operate, monitor and balance the flow of gas through our pipes. The GCS refresh project enhanced the user experience and strengthens our CNI infrastructure and security. It has made us fit for the future and operating at our best.

Scope delivered:

- Migrated the entire [redacted]
- Migrated all the infrastructure from [redacted]
- Migrated from existing [redacted]
- Decoupled [redacted]
- Worked with [redacted] and built the necessary Data Pipelines and integration for Commercial Apps and Data Platform
- Prepared the necessary base build for the Data Pipeline from Commercial Apps to Data Platform.
- Migrated SMART (Storage Monitoring) functionality to MIPI.
- Integrated with existing [redacted]

Capital expenditure continued

- Prepared for Migration of Demand Forecast functionality to MIPI and Shrinkage Requirement functionality to Power Platform
- Migrated/Built all the Development and Test Environment for Comm. Apps, Talend, Tableau, ODS and build necessary Dev Ops Tools in the CNI Gas Domain in SDC and Handover Business Services Domain back to National Grid as part of Separation.

The **Safety and Compliance programme** is a continuous delivery programme which has been updating and enhancing our core gas applications and underlying processes to address ongoing operational and safety compliance requirements in terms of resilience, efficiency and future roadmap.

The remainder of RIIO-T2 will be identifying items that we can continue to update and enhance the near to CNI applications and underlying processes to maintain existing levels of operational safety and compliance.

The model allows the GSO (Gas System Operator) to be dynamic in re-positioning spend due to sanctioning small incremental releases rather than large project commitments based on high level and early views of cost, benefit and risk.

The objective of the **MASS (Modelling and Simulation) programme** of work is to enhance our network modelling capabilities and optimise decision-making tools throughout System Operator (SO) and Gas Transmission. It focuses on data science to deliver, enhance and govern network modelling, supply and demand forecasting, data visualization, data quality and aligning with the overall data strategy.

Scope delivered:

- The National Gas Data and Insights programme is live in our Azure platform, with approx. 1TB of data held at any one time
- Multiple integrations with key Systems of Record are live in Production, including Asset, Cyber, Construction, Trading and Investment, delivering core business data into the platform.
- This data is modelled and blended, and presented to business users via the PowerBI visualisation tool, enabling operational and strategic business decision making
- The end-to-end solution is scalable to future business needs, including Databricks as the primary tool for data pipelines. Flexible computing is provisioned as required through Azure
- Delivery of a prioritised set of Data Science projects including enhanced Supply and Demand forecasting models for SO using Machine Learning Ops, which are fed from System of Record integrations as above
- Enhanced Data Quality processes, including the implementation of Dublin Core standards and delivering Unity Catalogue within Databricks
- Ongoing delivering of Business and KPI Glossaries to enforce standardisation
- Delivery of business process controls such as Master Data Management , Complex Data Enrichment, AI and ML

Remaining activities to complete, which are on-track to complete in RIIO-T2 are:

- Extension to our Supply: Demand Data Science models using hourly data
- Completion of our SO reports, with full migration off Tableau
- Enhancements to existing network simulation capability to increase speed and flexibility. This will include capability to support new network configurations as may be required via hydrogen

As part of the **National Control Centre (NCC) video display wall replacement programme**, we

replaced the NCC Display Wall hardware [redacted] with the latest supportable and security software patches, with secure stock of spares. The system has now 5-year support maintenance contract. Work is going on to identify new capabilities to improve visualisation and ways of working within Control room. The new hardware and software now show a wider range of selectable data which supports the network operation displaying physical, commercial, team information. The additional functionality and capability allow a more flexible approach to data visualisation ensure relevant and incident supporting information is more readily available.

The **Gas Telemetry Network (GTN)** is a CNI system fundamental to the supply and safe control of gas to Great Britain. The programme will replace GTN telemetry network and core connectivity. This includes replacing GTN hardware at all remote sites and will refresh Core Data Centre Connectivity. Work is in progress for the program.

Market and customer insights

Market and customer insights investment provides a fixed annual budget to review, prioritise and deliver enhancements requested by customers and stakeholders community and industry engagement platforms.

Any enhancements will continue to be prioritised through engagement with stakeholders, aligning with the Data Openness Triage process recommended by the Energy Data Task Force (EDTF).

Across 2024/25, A new Gas data portal was delivered with additional contents, views, search options, self service options providing an improved customer journey with secure Representational State Transfer (REST) APIs.

We will continue to improve the quality, flexibility, availability and accessibility of data with enhanced monitoring facilities for the remainder of RIIO-T2.

The changes are aligned to Ofgem's data best practice guidance and makes Gas Operational data more discoverable and interoperable and improves both the quality of the data and improved accessibility. In addition to this we are continuously new data sets available; e.g. gas quality data.

Operations enablement

Within operations enablement, we have been delivering new projects under the Operations Technology Transformation programme, which aims to transform day to day working and digitise processes.

We have been reviewing the scheduling capability within Salesforce and delivering enhanced scheduling for Workforce Management, which will move us from monthly scheduling to weekly and daily. This will ensure we are more dynamic in issuing work orders and prioritising maintenance of assets as required.

We are working to improve connectivity in the field, especially for remote locations by asking our existing mobile network provider to provide enhanced antenna connectivity devices to 150 of our operations vans, prioritised based on users who work in known deadspots. This will enable connectivity to our systems on work devices and ensure work and data is captured at point of completion.

We are delivering a digital visitor access management solution at our main sites to manage and track visitors when at our highly secure operational sites. This will enable tracking of visitors and ensure we have a digital record of who has visited.

Data driven asset management

Within Asset, we have successfully gone live with the Digital Asset Management programme (DAM) which transformed our asset management system and processes. Within this we:

- Enterprise Asset Management (EAM) - moved off the legacy Ellipse asset management application and onto Maximo which is a fully supported platform with much more capability to build on in the future.
- Enterprise Content Management (ECM) – moved off the legacy OpenText application and onto Sharepoint Online.
- Geospatial Information System (GIS)– replacement of GIS and EAM integrations to ensure functionality is maintained as we change our EAM system.

Since DAM completed, we have also sanctioned a programme called the Future of Asset Management, which will look at further improving our asset management solution and its integrated systems. This has successfully delivered a new replacement data pipeline between Copperleaf and Maximo which is a core part of building our asset management plan for the RIIO-GT3 submission. It exports asset data from Maximo, applies transformations and loads it into the format used in Copperleaf.

We have also conducted a review of our inspection apps, with the aim to consolidate these down into less applications, simplifying the estate and improving how our field force collects asset data in the field.

Additionally, we are transitioning our cathodic protection (CP) system due to the previous vendor devices reaching end of life. We are delivering over 2,500 new devices across the network, and integrating the new system with Maximo to ensure CP data is stored and use to inform future maintenance.

Enhance asset design

The programme has made significant progress against the Price Control Deliverable (PCD), selecting three sites to validate and implement new processes and approaches, including suites of Engineering Information Records (EIR) and Post-Implementation Review (PIR) related standards. We have onboarded a design partner to deliver topography site surveys, including drone surveys, above and below ground surveys, which have now all been completed.

As part of the Building Information Modelling (BIM) enablement component, we have reviewed asset data from the selected sites and conducted scalability analysis to support asset attribution transformation aligned to ISO14224. We have completed the asset data model for two out of three selected sites. The Plant and Revit 3D models have been built. In the next phase, we will integrate the asset data model with the 3D models to complete the creation of BIM models, enabling project teams to operate BIM standards and processes for Asset Health and Decommissioning projects.

In readiness to scale up BIM adoption across National Gas, we have identified methods to manage projects in the Common Data Environment (CDE) and aligned associated configurations with ISO 19650. We have made

good progress in configuring a common component library, achieving 73% coverage including backward configuration.

Regarding the Business Change workstream, new processes have been signed off by the business and are going through business change readiness, including stakeholder engagement. User persona and change impact assessments are done, and communication channels and personnel have been set up.

Finally, on the migration workstream, we have completed design approval to integrate key applications such as Maximo and P6. We have also successfully completed test migration, drawing data from [redacted]

Emerging strategic threats are highlighting the need for strong controls on data residency. We are exploring appropriate mitigations or possible changes in approach to safeguard NGT data and protect the flow of Gas.

Enterprise IT

In 2024/25, we have successfully delivered several business plan commitments through the separation programme following the divestment from the National Grid Group.

From an infrastructure perspective, we undertook a comprehensive overhaul of the enterprise network, refreshing infrastructure hardware across the estate and implementing key upgrades and installations to enhance network performance and reliability. This included replacing end-of-life devices to ensure continued operational efficiency and support. Our commitment to maintaining and enhancing key platforms continued, with a particular focus on ServiceNow, where we carried out version upgrades to bolster security measures and ensure our systems remained supported and up to date. Additionally, we established a Network Operations Centre, which plays a crucial role in improving the management, monitoring, and response to infrastructure alerts, thereby maintaining the health and efficiency of our networks.

SuccessFactors (MyHub) Upgrade and Enhancements - We delivered a new and refreshed platform providing updates in line with the SAP vendor roadmap.

Project One (MyFinance) - New and refreshed platforms were implemented on current versions including standard maintenance and delivering updates to support the Gas business.

Business Services – We implemented a new and refreshed Payroll, enterprise content management, purchase to pay and RPA solutions.

Finance and Corporate – We implemented a new and refreshed ARIBA and Risk Management solution.

Digital Communications - We successfully implemented a new and refreshed Infonet, website and internal communications applications.

Non-operational capex - vehicle fleet

The commercial vehicle orders from 2024 are now due for conversion in May/June with deliveries expected in July. The 2025/26 vehicle replacements have not yet been ordered, but we now have the full specifications required by operations (35 light commercial vehicles - 14x 4x4s, 21 panel vans), which includes the replacement of 5 Heavy Goods Vehicles. These HGVs are for National Gas Services and will be 4x 18T dropsides with rear mounted cranes, and 1x 26T dropside with front mounted crane (total cost estimated at circa £820k).

This year has seen an updated National Gas livery which shows the updated slogan 'Securing Britain's Energy', includes the Armed Forces Covenant banner (National Gas joined the AFC in 2024); the livery will have further people imagery in 2025/26. Vehicle numbers delivered are based on what has been invoiced in 2024/25 and will show on the RRP data table. This is the same for vehicle conversions, meaning that some vehicle conversions won't show on the RRP data table this year, as they have not yet been invoiced. Not all vehicles will be showing on the 2024/25 RRP data table (6.10) either, due to vehicles that haven't yet been converted. These will show up on the 2025/26 RRP data table. This includes 48 [redacted]s, 8 Transit eCustoms [redacted]es, and 5 all-wheel [redacted]. Over the four years to date of the price control we have spent £4.3m (capex only, receipted, as above). We anticipate that over the remaining year of the price control spend will be in line with our RIIO-T2 allowances. There has been an increase in our EV charging infrastructure this year, moving from 10 chargers to 21. This is mainly due to the 7 installs at the [redacted] construction site, as well as Metering and NGS [redacted] (2 each). There will be further installs this year across more operational sites (compressor stations) to help support the introduction of commercial EVs. Chargers at operational sites will also help support the "job requirement company car" fleet as, 70% of this fleet (650+ cars) are electric. We have not yet had delivery of the hydrogen commercial vehicle which was being planned for early 2025. The delay was due to technical issues with the [redacted] uring trials, therefore delayed our ability to introduce them into our fleet. [redacted] have planned the new trial for July, and we are already looking at costing up a Hydrogen vehicle for purchase or lease. This vehicle will work alongside the FutureGrid project based at [redacted] where a hydrogen refuelling station is being developed through extraction from the trial hydrogen NTS.

This financial year we have delivered 27 Ford Transits and 10 Isuzu D-Max. The 27 Ford Transits recorded were from the 2022 orders (converted early in 2023/24) and the 10 [redacted] are from 2024 orders. Next year will include 65 Ford Transits as part of the 2024 orders – 8 of these are Transit eCustoms (EV). There will be 34 LCV orders for 2025/26 and the 5 HGV orders. This will complete the RIIO-T2 orders and budget allocation.

Other costs

Other Costs includes [redacted]

During 2024/25, Ofgem directed revisions to [redacted] nd IT baseline and uncertainty mechanism (UM) spend. The updates have reprofiled allowances between; years, capex and opex, TO/SO and baseline/non-baseline (UM) and increased values by around £39m. [redacted]

Image: Aberdeen compressor station

Other costs

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Other costs (SO)

In our **Other Costs (SO) Capex** there was a credit of £0.3m, reflecting close out of our TSA (Transitional Service Agreement) contracts. Cumulatively for RIIO-T2, our Other Costs (SO) Capex is £0.2m, which was largely in line with allowances.

We also spent £2.2m against a £13.3m allowance (£7.4m phased to year 4) on our [redacted] programme which was only directed during 2024/25.

Our RIIO-T2 forecast for this programme remains broadly in line with allowances.

Our **Other Costs (SO) Opex** spend was £2.6m, which was £0.2m below allowances of £2.8m. Cumulatively spend was £7.6m, in line with allowances. We expect spend to remain in line with allowances at the end of RIIO-T2.

Cyber resilience information technology (IT)

This is the fourth year of RRP performance reporting for the category of Cyber IT, noting we have provided ongoing progress updates to the Competent Authority, alongside regular Network and Information Systems Regulations (NIS) advisory sessions. We have delivered on our Year 4 regulatory commitments, as detailed in our PCD submissions.

In the 2024/25 financial year, £4.6m has been spent in total across the affected existing and former National Grid entities relating to Cyber IT, of which £2.5m was attributable to NGT being under the TSA inclusive of the £0.2m credit noted in the financial year 2024's narrative. In addition, we have initiated our own programme of work aligned to the Cyber Assessment Framework Enhanced Profile, a total of £2.1m has been spent all against our non-baseline allowances.

Our Cyber IT PCDs are specified as both common shared function under National Grid Group led programme while we are operating under a TSA following divestment to a consortium of Macquarie Asset Management and British Columbia Investment Management Corporation which completed on 31 January 2023; and those standalone capabilities developed by ourselves, enhancing our security posture. A TSA governance forum was established to ensure only group capabilities that would benefit National Gas and the end consumer continued. No new group projects were accepted in Year 4.

Our periodic PCD Reports reflect the status of progress as reported by National Grid who remained responsible for operational capabilities of these shared function PCDs on behalf of the affected entities including National Gas and National Grid Electricity Transmission (ET), System Operator and Transmission Owner entities. The divestment of our business and the associated steps to organisationally separate from National Grid completed as planned on the 1 February 2025. The divestment process included knowledge transfer to the new National Gas business.

Following divestment we have stood up our own Security team and a cyber strategy appropriate for our business, bringing all Security environments under our Chief Information Security Officer (CISO). We have used the January 2024 Cyber resilience re-opener to successfully apply for relevant amendments to baseline and non-baseline Cyber IT PCDs, to reflect the transition of security activities into our new stand alone business. These changes also update the deliverables within RIIO-T2.

This was completed in addition to the submission of the RIIO-GT3 business plan covering all security environments.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Physical security capex

Our network is subject to a multitude of security threats, which are continually evolving and often increasing in sophistication and persistence. The Enhanced Physical Security (EPS) Programme is a government mandated initiative to enhance physical site security with all works closely evaluated by the Department for Energy Security and Net Zero (DESNZ).

These enhancements were originally split into three phases:

- Phase One was completed in March 2018.
- Phase Two, which included enhanced physical security at 20 sites, was completed in March 2022.
- Phase 3 included enhanced physical security solutions at a further 9 sites and are under construction in RIIO-T2.

Finally, our RIIO-T2 Physical Security Capex spend was revised to include block valve removals and pipe through works at three operational sites as well as additional enhanced physical security solutions at eight sites in our Phase 4 programme, as part of our RIIO-T2 Physical Security UM submission. Below is a detailed account of the statuses and works completed for each of these projects during 2024/25.

New sites – Phase Three

As part of a review of sites undertaken in 2014, nine sites with shared ownership between other Gas Distribution Networks (GDNs) and National Gas Transmission were classified as requiring enhanced physical security (EPS) solutions to be delivered in RIIO-T2.

The works have been split into two lots. Lot 1 being the delivery of four Wales and West Utilities (WWU) sites and Lot 2, which includes four Northern Gas Networks (NGN) and one InterGen site, the parent company for Coryton Power.

All these sites contain National Gas Transmission owned assets of significant footprint that drive the requirement for enhanced physical security to DESNZ and Critical Protection of National Infrastructure (CPNI) standards.

Overall spend in 2024/25 for phase three works was £8.5m compared to £6.1m in 2023/24. The total spend on Lot 1 sites in 2024/25 was £0.8m and spend on Lot 2 sites was £7.7m.

Phase Three Lot One

Construction at all four sites is complete. However, commissioning of the sites could not be achieved in 2024/25 due to delays with fibre installation by a third-party provider at each site to support communication between the sites and the National Grid Security Control Centre (SCC).

Additional impact from the business separation between National Gas Transmission (NGT) and National Grid (NG) caused the unavailability of the SCC to support commissioning of the sites. Following a successful separation of NGT and NG in January 2025, and an establishment of NGT's own Security Operational Centre (SOC), commissioning of all four sites is expected to be achieved in 2025/26. During 2024/25, snagging works were carried out at the Lot 1 sites. It should be noted that Security at all four sites is hardened, and the only remaining works is the acceptance of the sites into the SOC.

Overall spend in 2024/25 was £0.8m compared to £3.1m in 2023/24.

Phase Three Lot Two

Four out of the five Lot 2 sites mobilised during 2024/25. The fifth, a shared site was unable to mobilise due to the shared owner requiring the completion of a legal agreement for site custody transfer, before the MWC would be allowed on site. During 2024/25, we spent £7.7m compared to £3.0m in 2023/24.

It should be noted that all of the Phase three sites are shared sites, but NGT only experienced issues with the legal agreement at one of them. It is anticipated that the legal agreement and documentation will be completed by the end of summer 2025, with works complete by the end of the financial year 2025/26.

Construction is underway and works are progressing satisfactorily at the four sites that were mobilised during 2024/25.

Based on learning from Lot 1, the mobilisation of Lot 2 sites was staggered, with sites starting two weeks apart. This enabled avoidance of the permit issues which we encountered on Phase one from GDNs which impacted contracted programmes and led to increased costs.

It is envisaged that works at all the four mobilised sites will be completed to schedule and currently anticipated to be commissioned and demobilised by the end of September 2025. Construction of the fifth site is also anticipated to be completed within 2025/26.

We reported as part of our RRP narrative for 2023/24 that the tender returns for Lot 2 sites were £2.4m (2023/24 prices) higher than anticipated due to inflation, which impacted material and labour costs, and the requirement for additional equipment identified during detailed design.

However, through the exploitation of efficiency opportunities, for example through bundled delivery strategy, staggered mobilisation, reuse of design contractors and MWC involvement in Lot 1 to transfer contractor learning and documentation to Lot 2, we were able to make significant programme and cost savings of over £1.9m, reducing the impact of this cost increase significantly.

Nevertheless, due to the impacts of further macroeconomic pressures, for example affecting the labour markets, materials and services, government NI rate increase, energy cost increases among others, this and the Lot 1 projects have seen an increase in overheads of some £0.9m combined, which we are struggling to accommodate within our regulatory allowances.

We continue to explore opportunities for efficiencies, but it is important to note that we are currently forecasting to exceed our allowances for the Phase three projects due to these impacts.

We intend to fully deliver the Phase three Lot 2 outputs and we remain on track to commission all sites within RIIO-T2.

Physical Security Capex- New Sites – Phase Four

Following a review of the threat landscape, there was a material increase in NGT's operational sites that met or exceeded the Critical National Infrastructure (CNI) rating 3 and above (CNI3+) with pre-positioning activities at the national/state level.

As a prudent operator we needed to take immediate action to comply with National Protective Security Authority (NPSA) guidance. For this reason, we requested via the PSUP Re-opener to fund eight sites which we prioritised based on site criticality and threat surface for interventions under RIIO-T2. This resulted in two additional PCD outputs in connection with our Capex New Build Solutions, which we are delivering under our Phase 4 project.

Other costs continued

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Other costs continued

[redacted]

[redacted]

Customer funded diversions

In 2024/25, we spent £16.8m on customer funded diversions. This is broadly in line with the run rate over the 4 years of RIIO-T2, at £19.8m.

National Gas has an obligation to protect the NTS from third party construction activities. These third-party activities can be road improvement schemes by National Highways or new housing developments requiring us to divert our NTS away from their proposals.

In 2024/25, we advanced construction on the A66 National Highways diversion, transitioning from the design phase initiated in 2023/24. Additionally, two customer-funded diversions remain in the design phase, with construction anticipated in 2026/27

[redacted]

Feeders 15 and 11 both require diverting to maintain the integrity of the pipelines, as part of the [redacted] carriageway upgrade by the National Highways.

Construction works commenced in April 2024 with site setup and preparatory activities. Each feeder operates within its own designated working area and is separated by farmland. Feeder 15 began first with excavation works, followed by the commencement of Feeder 11.

The shaft construction for both feeders and micro tunnelling for Feeder 15 was done during 2024/25. The project encountered significant groundwater which required substantial dewatering to enable the shafts to be constructed. This required collaboration with the Environment Agency for discharge and recharge licenses required for the dewatering.

[redacted]

The connections and reinstatements will continue into 2025/26 with full demobilisation of the site expected during October 2025.

Figure 66: New feeder leaving the shaft for feeder 15 connection

Figure 67: Shaft excavating on feeder 15

Operating expenditure (opex)

This chapter details our direct opex, which is the costs to operate our network and our indirect opex which covers things like maintenance expenses and support from the business. In 2024/25, Total Direct Opex costs were £30.7m, £6.5m below year 4 allowances of £37.2m Cumulatively, Direct Opex costs were £139.1m, £6.0m below allowances of £145.1m.

Image: Aberdeen comressor station

Operating expenditure (opex)

Transmission Operator (TO) Direct Opex

In 2024/25, Total Direct Opex costs were £30.7m, £6.5m below year 4 allowances of £37.2m Cumulatively, Direct Opex costs were £139.1m, £6.0m below allowances of £145.1m. Note: PSUP Opex is being covered in **Section 10** - Other costs. The breakdown of costs is as follows:

- Planned maintenance represents £16.4m of the total cost, which was £11m below allowances of £27.4m
- Unplanned Maintenance (Faults) were £6.7m, £1.8m above allowances of £4.9m
- Therefore, the net maintenance costs were £9.2m below allowances of £32.3m.
- Operational Property costs were £7.5m, £2.6m above allowances of £4.9m.

Planned Maintenance related to £75.7m of cumulative spend, £29.5m below allowances and Unplanned Maintenance was £30.6m, £10.6m above allowances. Operational Property costs were cumulatively £32.8m, £12.9m above allowances.

Reduced Planned Maintenance costs were driven by a broad mix of factors including the following:

- Increased capitalisation of labour costs due to greater involvement from Gas Operations in delivery of the capital and cyber programmes. Support activities to the capital programme encompass permitry, non-Routine operations, surveys, isolations, site preparation, contractor onboarding, safety induction, investment governance commitments and hands on delivery/support (small civils and tactical interventions). This has been delivered without compromising delivery of maintenance obligations.
- Capitalisation of costs associated with Marker Post replacements.
- Continued labour cost savings through reduction in agency staff costs across Operations, plus control and governance around both overtime usage and operating within headcount mandates.
- Procurement efficiencies year on year, improved cross-team working, insourcing where possible and a focus on productivity (through increased work order completion and utilisation on project work) have also contributed to savings
- Improved cost visibility (via focused reporting on key cost lines) has also contributed to Opex savings, providing actionable insights over third party cost allocations and timesheet compliance.
- Costs associated with planned maintenance will also be influenced by the grade/level of the technicians the activity was conducted by, and how intrusive the required maintenance was; e.g, visual vs functional inspection. These metrics are currently not quantifiable but will drive year to year variability in the level of cost impacting both planned and unplanned maintenance, as well as the volume of work orders completed.
- Planned maintenance costs have reduced year-on-year by £0.6m driven by the above factors.

Savings on Planned Maintenance were offset by increased Fault Maintenance costs:

- The higher fault costs were primarily driven by an increase in DSEAR defects and higher than expected levels of unplanned Line-walking.
- Higher levels of unplanned linewalking has been driven by addressing higher number of defects/faults, third party sightings/ additional asset protection activity caused by asset encroachment, winter preparation/response to adverse weather conditions and marker post replacements.
- To safe-guard assets against winter resilience risks and network criticality requirements, additional expenditure was incurred for critical spares and non-routine maintenance to mitigate breakdown risks. This is part of extensive focus on winter resilience and preparation.
- From a year on year perspective, Fault maintenance costs are down by £2.5m, partially due to back to years of focus on winter preparation, favourable weather conditions and variation in the degree (and severity) of individual faults and reactive maintenance requirements versus the prior year.

Operational Property costs were £2.6m above allowances, primarily driven by higher costs associated with Own Use Electricity:

- The increases in unit costs have been significantly above the average rate of inflation
- Compared to 2021/22 unit rates (where there was greater price stability), the 2024/25 rates for the full year were +81% higher on average.
- Electricity usage has not increased substantially versus prior years, with the increase in cost against allowances attributable to the high energy prices experienced since 2022/23.

System Operator (SO) Direct Opex

Total SO direct controllable opex costs were £21.3m, which is £7.9m lower than the RIIO-T2 allowance of £29.2m.

The underspend is driven by high attrition and a challenging recruitment environment, especially due to the launch of the National Energy System Operator (NESO) in 2025, with competitive roles to National Gas' System Operator. The need to increase headcount continues and is reflected in the System Operator's 2025/26 internal budget and the RIIO-GT3 plan.

During 2024/25, the SO recruited 25 FTE and had 15 leavers. Compared to the SO's Budget target headcount, it still had 16 vacancies in Q4 2024/25. The vacancies were primarily in specialist areas such as; Markets, System Capability and Risk, Commercial and Incentives and Energy Resilience.

Going forwards and into RIIO-GT3, further recruitment is expected in the SO to support NESO, National Control Centre Capabilities, Safety, Risk and Compliance, Market Modelling and Emergency Response.

Our 2024/25 costs were c.£1.0m lower than the prior year, mainly due to [redacted] capital contributions as historic development projects are now almost fully depreciated and (£0.5m) lower [redacted] costs due to cost efficiencies as a result of the [redacted] – starting from the planned go live.

Since the first engagement with Department for Energy Security and Net Zero (DESNZ) and Ofgem on the potential to create the new organisation now named National Energy System Operator (NESO) National Gas has proactively worked with NESO to establish them and for them to achieve their objectives and obligations. In the early phases this has meant providing them with IT models, tools and processes and also training their new recruits to ensure they are competent in areas such as gas NTS network modelling and emergency management. A number of the associated costs have been recovered directly from NESO under bi-lateral agreements but Ofgem recognised that there were a number of internal processes and activities that National Gas would need to develop and embed in order to appropriately interact with the new NESO organisation and it's requirements.

This category of cost was included in a consultation carried out by Ofgem in 2023 which led to the decision by Ofgem to create a new recovery mechanism through the National Gas price control process, this set out a likely annual cost of £1.5m applicable for the financial years 2024/25 and 2025/26 (referenced as Day 2) following which it was expected that the RIIO-GT3 price control would incorporate these costs into Opex as the processes would be embedded and effectively be part of Business as Usual.

The Opex total in this RRP submission includes an amount associated with the NESO related costs of ~£1.49m for financial year 2024/25 which are directly related to:

- the first time processes of Gas Network Capability Needs Report and Strategic Planning Options Proposal in the Strategic Energy Planning (SEP) area of NESO's work
- the processes and additional internal resource time related to Resilience & Emergency Management
- advising on and developing the NESO processes for Gas Advisory Council and NESO taking over the Chair role and administration
- developing the internal engagement and associated process for the developing SEP framework and associated consultations/ processes – Strategic Spatial Energy Plan, Centralised Strategic Network Plan, Regional Energy Strategic Plan
- embedding the Independent System Operator & Planner licence changes into our licence and compliance framework across impacted teams and assurance
- continuous formal and informal engagement with NESO at all levels in the organisation to ensure processes are robust and obligations are achieved

Indirect Opex

In 2024/25, total Indirect Opex Costs (across TO and SO for Business Support, Closely Associated and Quarry and Loss) were £107.6m, compared to a total allowance of £84.7m.

The majority of this increase is related to IT spend driven by the implementation of Software as a Service (SaaS) and cloud based solutions as part of our RIIO-T2 investments, which cannot be capitalised.

Cumulatively total Indirect Opex Costs were £378.0m against allowances of £364.0m.

TO Business Support Opex

TO Business Support costs were £43.2m for 2024/25 which is £14.0m higher than allowances. Cumulative spend was £141.2m compared to allowances of £122.8m. This largely relates to increases in IT costs, reflecting increased project spend relating to SaaS and cloud based solution which cannot be capitalised.

When compared to the previous year costs are £1.6m higher, reflecting higher IT costs (£3.1m) and HR costs (£0.9m), partly offset by lower Finance (£1.8m) and CEO costs (£0.7m). For more details please see table narrative for 5.1 and 5.5.

SO Business Support Opex

SO Business Support costs were £23.2m for 2024/25 which is £1.9m higher than the allowances. Cumulative spend was £83.3m compared to allowances of £84.8m.

When compared to 2023/24 costs were £1.2m lower largely reflecting a £1.0m decrease in IT costs following a switch in spend into Operational IT. For more details please see table narratives for 5.2 and 5.5.

TO Closely Associated Indirect Opex

35. TO Closely Associated costs were £29.4m for 2024/25, which is £9.1m higher than allowances. For the RIIO-T2 period spend so far is £103.2m, £2m higher than allowances. Year-on-year costs are £3.5m higher largely due to a write-off of aged stock items. More details can be found on the table narratives for 5.1 and 5.5.

SO Closely Associated Indirect Opex

SO Closely Associated costs were £6.8m, which is lower than allowances of £9.2m. Cumulatively spend is £27.9m compared to allowances of £35.8m. This is largely due to lower CNI spend. When compared to 2023/24 spend was £1.3m higher largely due to IT costs. For more details please see table narrative for 5.2 and 5.5.

Quarry and Loss

Quarry and Loss costs were £2.6m for 2024/25 which is £1.3m higher than allowances of £1.3m, largely due to the continued high level of drainage claims. Year-on-year costs of drainage claims have remained in line at c.£2.2m but volumes have increased from 246 to 293 in 2024/25.

Cumulatively we have spent £11.4m against a RIIO-T2 allowance of £6.5m. The additional spend has been included in the pipeline log (table 8.10) as we expect to true-up efficiently incurred costs as part of RIIO-T2 close out as outlined in the Final Determination..

The provision has been increased by £5m (see table 5.8) in the year largely to reflect the expected continued higher costs of drainage claims, particularly in the South West of England. We have assessed expected costs in 3 phases; initial investigation, remediation and completion.

Appendix 1: Table narratives

1. All costs are in the 2018/19 price base unless stated otherwise.

Table 2.1 Revenue interface

2. This table is entirely auto-populated, pulling data from the rest of the pack and subsequently linking to the revenue working tabs.

Table 2.2 NARMS interface

3. Table 2.2 is entirely auto-populated from the data in table 6.3 Asset Health.

4. The RIIO-T2 NARMs mechanism is based off UIDs, whereas the NARMs Interface table is a summary of costs and volumes by Secondary Asset Class (SAC). RIIO-T2 cost capture and reporting is tailored to UID's and table 6.3 already has costs and volumes by UID which aligns to NARMs.

5. To note, the data in this table cannot be used to derive unit cost information as actual costs incurred will have been incurred for delivery of volumes in future years.

Table 3.1 TO totex

6. Table 3.1 is entirely auto-populated and shows a summary of TO totex, baseline and uncertainty. Some of the capex categories also pull through a forecast from other tables; e.g. Emissions Compliance from table 6.1, [redacted] Redevelopment from table 6.1 and [redacted] Compressor UM from 6.1. The net zero UIOLI forecast also flows through from 8.11.

7. Total baseline spend to date totals £1,386.2m and UM spend to date is £143.5m.

8. Spend and allowances for Western Gas Network Upgrade (WGNU) have been removed since our submission last year following the receipt of a formal termination notice from the relevant customer in July 2024. The majority of spend is expected to be recovered under conditions included in the customer contract, the remainder and the return of allowances previously collected adjusted via the PCFM submitted in December 2024 under PARCA.

Table 3.2 SO totex

9. Table 3.2 is entirely auto-populated and shows a summary of SO Totex, including baseline and uncertainty.

10. Total baseline totex to date totals £289.3m and UM spend to date is £12.8m.

Table 3.3 Allowances

11. Allowances have been checked to the latest published PCFM (May 2025) plus the addition of updated allowances for the TO for [redacted] Asset Health and Hydrogen feed study which were directed after the December 2024 PCFM submission for the TO. The total baseline allowances sum to £2,185.1m.

12. It should also be noted that the Opex escalator impact on certain allowances, such as Compressor Emissions is not included in table 3.3, but our performance reporting totals on table 3.4 rows 64/65 do. The impact was calculated using table 4.9 Opex Escalator.

Table 3.4 Totex summary

13. Table 3.4 summarises totex Spend/Forecast vs Allowances in order to calculate performance. The totex section captures spend from tables 3.1/3.2, along with the forecast from table 3.5, including both baseline and uncertainty totex.

14. TO Actual/Forecast totex for the RIIO-T2 period totals £2,278.2m, this is compared to allowances of £2,210.7m (including RPE), giving a TO overspend of £67.4m.

15. This figure includes £14.0m of forecast from the Pipeline log (8.10) which have not yet been given approval status by Ofgem – we have assumed the same value for allowances at this stage, i.e. no under/overspend.

16. SO Actual/Forecast totex is £416.3m compared to allowances of £488.0m, giving a SO underspend of £71.7m.

17. Our combined totex underspend is £4.3m, against a total spend of £2,694.5m.

Table 3.5 Forecast totex

18. Table 3.5 shows our totex forecast for the remainder of RIIO-T2. The TO baseline forecast for 2025/26 totals £511.5m and TO UM forecast for the same period totals £223.0m. The SO baseline forecast for 2025/26 totals £82.3m, and a UM forecast of £31.8.

Table 3.6 PCD

19. PCD performance is reviewed on a regular basis at a Governance forum and the statuses provided as part of RRP table completion were taken from the most recent meeting. For further information about each PCD please see the relevant section of strategic narrative.

20. The 'Comments – Risk to delivery' column is populated with a focus on the financial year 2024/25 performance (either LTRB claimed, or volumes delivered if appropriate) and captures high level inherent risks to the delivery of the individual themes.

21. The financial values listed in the tables are being fed through from table 6.1 Capex Summary, via the more detailed Capex tables, these numbers have not been altered when updating the narrative, following the completion of those tables.

Table 4.1 4.2 TO SO PCFM Input Summary

22. Tables 4.1 and 4.2 are both entirely auto-populated from the remainder of the RRP. These tables are used to populate the Price Control Financial Model ahead of the 30 September submission to Ofgem.

Table 4.3 4.4 TO SO PCDs

Cyber OT

23. Ofgem's confidential final decision in relation to the [redacted] re-opener application was issued on 9 December 2024. In the direction, Ofgem confirmed the [redacted] allowance, and consequently have updated the allowances under the [redacted] terms in tables 4.3 and 4.5.

Cyber IT

24. Ofgem's confidential final decision in relation to the [redacted] re-opener event was issued on 9 December 2024. The re-opener decision resulted in baseline allowances changing, the [redacted] terms have been amended accordingly ensuring the up to date values are presented on Table 4.1 TO PCFM Input Summary and Table 4.2 SO PCFM Input Summary.

Table 4.5 TO Re-openers

25. There are six Pipeline Log re-openers included in table 4.5: 2024/25 Pre-construction Work and Small Net Zero Projects, [redacted], Non-operational IT Capex, Compressor Emissions [redacted] compressors, for which the final decision documents have now been published) and Asset Health.

Net Zero Pre-construction Work and Small Net Zero Projects Re-opener

26. Ofgem published the final direction on our methane emissions reduction and monitoring projects on 24 May 2024. The allowance was directed to be collected via the NZPt term.

[redacted]

Compressor emissions

29. The decisions on the final preferred options have been published in March 2023 ([redacted] and November 2023 [redacted]. Although Allowances have not yet been directed, we are including a forecast aligned to the August 2024 FOSR for these re-openers as the preferred options have been agreed with Ofgem. The forecast spend/ allowance has not been included in table 8.10 to avoid a double count in the performance calculations in table 3.4. The same applies for [redacted] Terminal Site re-development where the final preferred option decision was published August 2024.

Non-operational IT capex

30. On 31 January 2024, Ofgem published the final determination and direction for National Gas Transmission's non-operational IT capex re-opener. The decision awarded allowances for the Transmission Owner and System Operator, which have been recorded against the re-opener allowance term NOITOt.

Asset health

31. On 6 June 2025 Ofgem released its final direction on NGT's January 2024 submission relating to National Gas Transmission's Asset Health re-opener. The decision awarded allowances against the following terms: AHt, NARMAHOt, and NLAHOt. The updated values have resulted in some years having negative allowances.

Table 4.6 SO Re-openers

32. As noted above, on 31 Jan 2024 Ofgem published the final determination and direction for National Gas Transmission's non-operational IT capex re-opener. The decision awarded allowances for the Transmission Owner and System Operator, which have been recorded against the re-opener allowance term NOITOt.

[redacted]

Future System Operator set up costs

34. At the time of writing this, we are still awaiting to hear back on our PCFI consultation submitted on the 23 May 2025, in reference to how we populate allowances for Spc 3.19 - Future System Operator transition allowance (FSOTAt) – therefore the allowances have not been populated on table 4.6.

Table 4.7 TO Pass Through

35. Pension deficit allowance values have been entered directly into Table 4.7 in line with the Reasonableness Review Directions published in November 2020 and November 2023, with pensions allowances now set for the remaining years of RIIO-T2. Net zero pass-through costs have been directly entered into table 4.7. The cost comprises funding that is payable to other gas networks, as well as funding allowances granted to National Gas Transmission for the Project Union feasibility study.

36. The Project Union feasibility study allowances have been updated to align with the spend profile and not as per the funding decision, to ensure the allowance is collected in line with spend, the return of un-used funding has also been included as per the close down report.

Table 4.8 SO Pass Through

37. As with the TO, pension deficit allowance values have been entered directly into table 4.8 in line with the Reasonableness Review Directions published in November 2020 and November 2023 with pensions allowances set for the remaining years of RIIO-T2.

38. We have populated allowances for the new Gas Network Planning Activities (ARGSPt) as directed by NESO for £28.4m.

Table 4.9 Opex escalator

39. The re-openers for [redacted] site terminal redevelopment, compressor emissions and asset health are included in the opex escalator calculation in table 4.9. The direct costs for these projects are recorded in table 4.5 TO Re-openers.

Table 4.10 TO ODI

40. There are two ODIs for TO: Customer Satisfaction Survey (CSAT) and the Environmental Scorecard. There was an increase in the CSPt score compared to the prior year by 0.33, which means NGT continue to exceed the incentive target of 7.8 and the incentive cap of 8.5 and has therefore continued to achieve the maximum incentive revenue of £3.6m.

41. The Environmental Scorecard includes seven sub-categories. The main category that has generated some incentive revenue in 2024/25 is the change in environmental value. NGT have forecasted achieving incentive revenue of £0.11m per annum for the remainder of RIIO-T2. As was done last year, this has been forecasted at a total incentive level as opposed to the individual component parts. There has been a restatement for all prior years of RIIO-T2 following a detailed review of the baseline date used to look at office waste. This has resulted in a marginal change in value (more detail can be found against table 8.3). The 2025/26 forecast has been kept inline with 2024/25 actuals.

Table 4.11 TO ORA

42. This table includes values for the revenue we can collect to cover the Strategic Innovation Fund funding costs. These values are directed by Ofgem or forecast by Innovate UK (a part of UK Research and Innovation whom Ofgem have partnered with to administrate the SIF funding process). The 2024/25 SIF value has been updated from £25.8m in 2023/24 to £23.9m. This is mainly due to the forecast for Beta round 2 being significantly lower for 2024/25 and 2025/26. The latest forecast from Innovate UK (received in May 2025) has been used to inform the forecast for future funding payments where these have not yet been directed by Ofgem.

43. On 2 June 2025 Ofgem directed additional Hydrogen innovation funding to the value of £4.1m which is included in the Network Innovation Allowance.

Table 4.12 SO ORA

44. This table reports SO Other Revenue Allowances. This is an auto-populated summary, and the narrative relating to individual costs and incentives will be included alongside the relevant data input tables. The forecast values for Constraint Management, Residual Balancing Revenue, Demand Forecasting, Greenhouse Gas Emissions and Maintenance have been manually inputted within this table. As was done last year, we have provided the monetary incentive value we believe we will achieve rather than forecasting the individual component parts of each incentive.

Table 4.13 4.14 TO SO Tax Pool Totex Allocation

45. Ofgem mandate that the tax pool allocation rates cannot be retrospectively updated for a year where the ADJR value has been published and charges set. As this is now the case for the year to March 2026 (which is the last year for which we are required to submit updated tax pool allocations in tables 4.13 and 4.14 of the RRP), no updates can be made to any of the tax pool allocation rates and they will remain as per the 2023/24 RRP submission. PCFM guidance page 25 confirms this.

Table 4.15 DRS revenue

46. Revenue for Directly Remunerated Services is £16.7m mainly relating to diversionary works under obligation. This is a £4.2m decrease compared to prior year driven by HS2 schemes being either completed or discontinued partially offset by increases in other schemes such as the diversion of feeders 1 & 11 due to works on the A66.

47. A more detailed analysis has been carried out this year and values for Connection Services (£0.2m), PARCA activities (£0.02m) and Miscellaneous (£0.2m) are now shown separately.

48. De-Minimis Revenue totals £2.5m and relates to land rental income and IT Tools sold to NESO.

49. Consented Revenue totals £25.6m of which £18.5m relates to Services for IDNs and other 3rd parties. The remainder relates to GSA Revenue and is in line with 2023/24.

Table 4.16 4.17 TO SO Recovered Revenue

50. The tables aim to provide details on the actual recovered revenue for 2024/25. The recovered revenue for TO and SO are performed on a cost basis; e.g. what has been invoiced relating to 2024/25. Invoices are raised a month in arrears and therefore, relevant dates are from 01 May 2024 to 30 April 2025.

51. TO revenue has increased year on year by £77m (£841.2m to £918.2m). This is due to the increase in Allowed Revenue.

52. SO revenues have significantly decreased year on year by £335.4m (£734.5m to £399.1m).

53. The revenue was exceptionally higher in 2023/24 due to a large under collection of shrinkage costs in 2022/23. This was an exceptional event in 2022/23 due to the Russia/Ukraine conflict. The impact of the conflict did not impact the volumes as significantly in 2023/24.

Table 5.1 TO Indirects

54. The purpose of this table is to provide a breakdown of cash controllable costs into activities within business support and closely associated indirect costs.

TO Business Support Costs

55. TO Business Support costs were £43.2m for 2024/25 which is £14.0m higher than the allowances. Cumulatively spend was £141.2m vs £122.8m allowance.

56. Costs increased by £1.6m from prior year comprising:

- IT costs were £3.1m higher, the primary driver being increased spend on our IT Indirect investment lines where significant work was undertaken to deliver our business plan commitments as we concluded our separation from National Grid. More of this activity was associated with the move to cloud based, SaaS solutions resulting in an increase in opex spend. IT run the business costs were in line with prior year.
- HR costs increased by £0.9m, partly to support the growth in headcount across the organisation and due to vacancies from prior year being filled.
- Procurement costs were £0.3m higher due to an increase in the team to support the growth of the business through upcoming Capex and Opex work.
- Insurance premiums were £0.1m higher than prior year due to an increase in insured values for items such as properties, payroll and vehicles.
- Finance Regulation & Audit costs were £1.8m lower. The RIIO-GT3 Business Plan build was mostly during 2023/24, with the team size reducing as they move on to the Proposals & Finalisation phase in 2025/26 (£1.1m). Other Finance costs were lower due to a recharge of staff costs out of the regulated business relating to financial consolidation activities for Group reporting (£0.4m) and lower 3rd party spend (£0.3m).
- CEO costs were £0.7m lower than prior year, driven by a reduction in bad debt write offs. An increase in staff costs was offset by lower 3rd party costs.
- Property costs were £0.3m lower due to savings made from taking services in house at the Warwick site following separation and a refund relating to prior year for services that had ceased.

TO Closely Associated Indirect Costs

57. TO Closely Associated Indirect costs were £29.4m for 2024/25 which is £9.1m higher than the allowances. Cumulatively spend is £103.2m vs £101.2m allowances.

58. Year on year costs have increased by £3.5m explained by:

- Stores & Logistics £3.1m higher due to a write-off of aged stock items.
- Project Management £0.3m higher driven by increased recruitment in the Construction & Asset departments to support the growth in the capital works programme
- Network Policy (including R&D) costs increased by £0.3m largely driven by R&D projects.
- Operational IT costs are £0.5m lower driven by IT project costs.
- Operational Training costs are in line with prior year. The delivery of technical training was delayed as alternative delivery methods with colleges were stood up following separation, resulting in £1.3m lower costs year on year. This was offset by a re-classification of operational apprentice costs of £1.3m from table 5.3 (direct costs).
- Other minor variances across the remaining CAI categories totals £0.3m higher.

59. The difference between the Gross Costs and Net Costs (capitalisation rate) for Closely Associated Indirects has increased year on year by £9.1m from £34.4m to £43.5m. This is mainly driven by an increase in Capex spend driven by RIIO-T2 spend ramp up.

Table 5.2 SO Indirects

60. The purpose of this table is to provide a breakdown of cash controllable costs into activities within business support and closely associated indirect costs.

SO Business Support Costs

61. SO Business Support costs were £23.2m for 2024/25 which is £1.9m higher than allowances. Cumulatively spend was £83.3m vs £84.8m.

62. Costs were a £1.2m decrease from prior year largely comprising:

- IT costs were £1.0m lower year on year. IT Non-Operational project spend increased by £1.8m, on our IT Indirect investment lines where significant work was undertaken to deliver our business plan commitments as we concluded our separation from National Grid. More of this activity was associated with the move to cloud based, SaaS solutions resulting in an increase in opex spend. IT run the business costs were £2.8m lower - On exiting the TSA a bottom-up review was carried out resulting in £2.7m of contracts and staff supporting CNI services being re-classified as Operational IT.
- Property costs were £0.4m lower due to savings made from taking services in house for the Warwick & Hams Lane sites and a refund relating to prior year for services that had ceased.

SO Closely Associated Indirect Costs

63. SO Closely Associated Indirect costs were £6.8m, which is £2.3m lower than allowances. Cumulatively spend was £27.9m vs £35.8m allowance.

64. Compared to prior year, this was a £1.3m increase, driven by Operational IT costs. On exiting the TSA a bottom-up review was carried out resulting in £2.7m of contracts and staff supporting CNI services being re-classified as Operational IT. This is partially offset by a one-off accrual release relating to Data Centre costs £0.9m and £0.5m lower project costs.

65. Operational Safety costs are in line with prior year.

SO Pass Through Costs

66. A new pass-through cost has been created for the NGT SO to allow for the collection of gas system planner costs incurred by NESO and recoverable from users of the National Transmission System (NTS). We received the first forecast of these new costs from NESO on 11 November 2024 and for 2025/26 it was £28.4m. It was highlighted by NESO that the forecast for 2025/26 is higher than other years as it includes costs from 1 October 2024 (NESO Day 1).

Table 5.3 TO Directs

67. The purpose of this table is to understand the amount of cash controllable operating costs and associated activity volumes on fault repairs and planned inspections and maintenance, including the costs of operational property management.

68. In 2024/25 there was £30.7m of Total Direct Opex cost versus allowances of £37.2m, driving a £6.5m variance. Cumulatively spend was £139.2m vs £145.1m allowance.

69. Planned maintenance represents £16.4m of the total cost, which was £10.9m below allowances. Unplanned Maintenance (faults) were £6.7m, £1.8m above allowances of £4.9m. Therefore, the net maintenance costs were £23.2m, £9.1m below allowances.

70. Operational Property Management costs were £7.5m, £2.6m above allowances.

71. Year on year there was a £5.0m decrease in costs:

- Direct costs excluding Operational Property Management have decreased by £3.1m driven by a re-classification of operational apprentice costs of £1.3m to table 5.1 (operational training). The remaining variance of £1.8m is partly due to additional capitalisation because of increasing demand on Operations staff in support of the investment programme. Lower 3rd party costs year on year are driven by transfers relating to PPE replacements to the separation budget, and improved cost visibility enabling transfer of costs to non-operational capex budgets. Further favourability is due to timing of costs associated with non-routine maintenance.
- Operational Property Management costs have decreased year on year by £2.0m driven by:
- Utility cost decreases of £2.6m driven by rate favourability year on year as price pressure has eased following the energy crisis (which impacted 2022/23 and 2023/24). However, whilst prices have not fallen back to pre-2022/23 levels, we have taken pro-active steps to hedge commodity costs associated with own use energy to provide price certainty. Further year on year favourability is due to the release of accruals held to cover risk associated with legacy ENGIE costs following a switch in energy provider to EDF.
- Operational Property site cost increases of £0.6m principally relating to sites at Ambergate, Felindre & Theddlethorpe.

Workload

72. In the pipeline faults category, there were lesser CIPS Survey and Linewalking scheduled in 2024/25 compared to the previous year. The electrical fault category showed that faults has returned to the normal level following the conclusion of a project to review and raise DSEAR defects across the network in the last year and focus has now shifted to remediating these. All changes in Planned work orders are within reasonable limits of what is expected given fluctuations in planned frequency tasks (e.g. not all work orders are annual tasks).

73. It was agreed with Ofgem that an apportionment methodology for table 5.3 would be acceptable.

74. With the exception of costs, all of the data is sourced from the core asset management system, utilising information captured at point of work for planned maintenance and unplanned defect remediation work.

75. Data has been categorised into sub cat 1 & 2 as requested by Ofgem to give a more useful view of direct opex spend.

76. To note the apportionment method assumes all time is equal. The total hours have been used to apportion spend across the various asset categories. So, one hour spent on a visual inspection is equal to a one hour functional inspection. The model does not currently differentiate between different pay grades of technicians. Additional data would be required to achieve this differentiation.

77. The majority of planned maintenance is scheduled at a system level, and where possible the model will identify the exact assets which were in scope for that maintenance. Where we are not able to do that, we have assumed that all assets in those systems were in-scope for the maintenance. The total time for the maintenance work order has been evenly distributed across the number of assets in those systems and apportioned across the various asset categories where multiple exist.

78. The time data has been taken directly from the submissions by technicians at point of work. At times, extreme values can be observed. We have taken measures to smooth out these outliers using averages of similar work types. Where we have recorded times, we will use those. In the absence of recorded time, we take the average for that type of work

Table 5.4 SO Directs

79. The purpose of this table is to report the operating costs incurred by NGT in operating the gas network system.

80. Total SO direct controllable opex costs for 2024/25 were £21.3m, compared to an allowance of £29.2m (cumulatively £91.2m vs £117.2m). The underspend is driven by high attrition and a challenging recruitment environment, especially due to the launch of the National Energy System Operator (NESO) in 2024/25, with competitive roles to National Gas' System Operator. The need to increase headcount continues and is reflected in the internal budget and the RIIO-GT3 plan.

81. Overall costs are £1.0m lower than the prior year explained as follows:

- Lower [redacted] capital contributions as historic development projects are now almost fully depreciated (£0.4m)
- [redacted] opex costs due to cost efficiencies as a result of the Gemini Sustain Plus programme – starting from the planned go live (£0.5m)
- Other minor variances (£0.1m reduction).

Table 5.5 Opex YoY Movements

82. For narrative on cost movements, please see comments on tables 5.1-5.4.

Table 5.6 TO Quarry and Loss

83. The purpose of the table is to collect details of cash payments and provision movements relating to quarry and other loss of development claims.

84. Costs have decreased year on year by £0.6m because there were no claims settled in the year for sterilised minerals or loss of development. Crop and Drainage costs are in line with prior year spend.

85. The value of the Quarry/Crop/Drainage provision closing balance is £11.3m (as shown on table 5.8 Provisions). An increase of £4.1m on the prior year.

86. Please note that the line titled Amount charged to income statement is not the same as the Income Statement Charge / Release figure on the Balance Sheet and that is reported in table 5.8. The value in table 5.6 is the value reported in the Income statement before cash adjustments.

87. Please also note that the line titled cash utilisation is not the same as the cash utilisation figure on the Balance Sheet and that is reported in table 5.8. The value in table 5.6 is the value of cash expensed [the formula in cell AF30 is the sum of the Costs section].

Table 5.7 TO Physical Security Opex

88. The purpose of this table is to report the opex spent on physical security in relation to BEIS's enhanced physical security upgrade programme (PSUP).

89. Costs have increased by £1.2m compared to 2023/24. Please see more details in **Chapter10** Other Costs.

Table 5.8 Provisions

90. The purpose of this table is to provide a breakdown of the opening, additions, utilisations and other movements in the provisions balances as reported in the ARA (Annual Report and Accounts).

91. The reported table within the RRP is in 2018/19 price base as per the RIGs requirements. As our Statutory Accounts are reported in nominal price base, the opening and closing balance will not be in line with table 5.8 due to price base differences.

Emission provision

92. We have recognised an Emission provision for £5.5m in 2024/25.

93. The UK ETS scheme is derived from the UK government and is designed to reduce the amount of greenhouse gases emitted from energy intensive industries. Any emissions over the free allowance must be purchased on the open market.

94. The provision value relating to 2024/25 is £5.5m as the tickets will be surrendered in April 2025, the value is held as a current provision. The provision value relating to 2025/26 is £1.7m, as the allowances will not be surrendered until April 2026 the value is held as non-current. This will be re-classed in April 2025.

Environmental provision movement

95. The Environment provision has increased by £1.5m compared to 2023/24. This is largely due to £1.1m of other movements and £0.5m relating to unwinding of discount.

96. The discount rate applied in year was 1.37% (2023/24: 1.1%)

Crop & Quarry

97. This provision arises because of the terms of Deed of Easement or Deed of Servitude, whereby we receive claims from landowners for losses suffered due to pipeline developments and the on-going presence of our pipelines, these can be categorised into the loss of minerals, loss of development, loss of crop or drainage issues.

98. Of the existing claims a view has been taken of the realistic level of claim that is expected to result from negotiated settlements and a provision has been made to reflect this. In 2024/25 the provision increased by £4.1m due to £6.6m new claims, partly offset by £2.5m in year utilisation.

Table 5.9 Business Support Allocations

99. For narrative on cost movements, please see comments on tables 5.1 and 5.2.

Table 5.10 FTEs

100. We have prepared this table on a TO only basis. Where FTEs support both the TO and SO businesses, we have assumed similar proportions to that used in the categories covered in table 5.9 Business support tables for costs.

101. The values in 2024/25 are produced as an average from monthly headcount reports. % assumption associated with capitalisation has been applied to 2024/25 based on a 2024/25 average.

102. As in previous years, it is worth noting that Headcount continues to fluctuate month by month as employees move and transition to the newly formed separated Gas business in addition to new external employees and contractors being brought in to stand up the newly separated stand alone Gas business.

103. The FTE number for 2024/25 is 1821 vs 1510 in 2023/24 an increase of 311 FTEs (between 2023/23 and 2023/24 there was a similar increase of 215 FTEs) this shows the continuous growth trend to support the stand-alone organisation as well as support our RIIO-T2 commitments for delivering our Capex programme.

104. The increase is additionally driven by higher IT FTE's due to our IT separation plan. A higher number of FTE's are required so that IT infrastructure can be developed for new systems coupled with the set up of a standalone Security function post TSA and a drive to achieve compliance with the Cyber Assessment Framework (CAF) enhanced profile (EP) by December 2025 (currently compliant with the basic profile (BP)). This has involved the stand-up of our own security team, due to extra CAF EP roles and loss of economies of scale post separation. It is worth noting that the costs of separation are excluded from IT Costs for RRP purposes.

Table 6.1 Capex Summary

105. The purpose of this table is to provide a summary of all load and non-load related capex expenditure incurred on projects or bundles of work for which there are specific allowances and capture cost data for any additional projects undertaken on the network.

106. The majority of actual data for this table feeds directly from the other Capex tables (6.2-6.9) and those tables are described in more detail in the subsequent table narratives.

RIIO-T1 Headwinds

107. Where there are investments that formed part of the RIIO-T1 GT capex allowances and for which there is no associated RIIO-T2 allowances additional rows are included to capture these costs for transparency. These costs will not feature in the corresponding capex table, for example PSUP 'T1 Headwinds' costs won't be reported in RRP table 6.6 PSUP, but within the 'PSUP T1 carry over' row in the 6.1 Capex Summary table.

Direct / Indirect Split

108. Direct/Indirect cost breakdown is required for both RIIO-T1 and RIIO-T2 Funded work. This breakdown will only be for ACTUAL Project to Date costs for all categories, except Specific Projects. This breakdown has followed the direction set out in RIGS on a best endeavours approach.

109. It is our interpretation of the RIGS that Project Managers who may spend much of their time working on and charging their time to a specific asset would be considered as a 'Direct Cost'. For example, they could be on site for periods of time, which could be interpreted as 'physical contact with system asset'.

110. We have interpreted our overheads allocation as being Indirect Costs. This is a fixed % of Business Support/Closely Associated Indirect costs that get capitalised. Cost Capture at an Investment level in SAP S4 using the new WBS Structure mapped to Direct/Indirect categories supports the reporting of Direct/Indirect costs in RIIO-T2.

111. Cost capture of RIIO-T1 Headwinds and pre RIIO-T2 (<2021/22) costs did not support the direct/indirect cost breakdown required for table 6.1 reporting. These cost breakdowns have been produced using a best endeavours approach.

Load Related Entry

112. There was no baseline allowance for Load Related Entry Capex in RIIO-T2. In 2024/25 our overall spend was £0.2m which largely related to the RIIO-T1 Felindre VSD project. Year on year spend decreased by £0.4m, from £0.6m to £0.2m..

Load Related Offtakes

113. Offtakes are Customer Funded so no RIIO-T2 allowances are applicable. Costs in the Offtakes section are offset by a corresponding Credit in the Customer Contribution section.

114. LR Offtakes spend in 2024/25 was £3.9m rising from £1.4m in the prior year. The spend largely related to investments including [redacted] Exit Connection (£0.4m).

Network Capability (Baseline)

115. There was £1.0m spend in 2024/25 compared to an allowance of £0.3m to deliver work included in the Control System upgrades of Metering Assets Investment. Year on year spend has decreased by £0.2m. Cumulatively we have spent £3.2m versus an allowance of £2.6m.

Compressor Emissions (baseline)

116. See RRP table 6.2 Projects for further narrative.

Asset Health (Baseline)

117. See RRP Table 6.3 Asset Health for table narrative.

Other Non-Load (Baseline)

118. For Decommissioning, please see RRP table 6.5 for details. For Bacton Site Redevelopment FEED, [redacted] FEED see RRP table 6.2 for narrative.

119. For more details on Stopples, GRAID, DSEAR, Recompression and Methane please see Chapter 9 - Capex.

[redacted] RIIO-T1 carry over

120. The RIIO-T1 Carry Over costs for the works at Peterborough and Huntingdon include Asset Health, IED-IPPC and Security Resilience which were reported separately in RIIO-T1. In 2024/25 there was a further £3.0m spend, bringing the cumulative RIIO-T2 total to £79m.

Asset Health RIIO-GT3 Spend

121. RIIO-GT3 preparatory Asset Health costs were incurred in 2024/25, a total of £4.4m. Projects included Compressor Overhauls FY27 (£2.0m), Sites AGI Construction FY27 (£1.1m) and St Fergus Plan (£1.0m).

Non-Operational Capex (Baseline)

122. See RRP table 6.7 TO Non-Operational Capex and 6.8 SO Non-Operational Capex for narrative.

[redacted]

Uncertainty Mechanism

126. There is £3.3m spend in 2024/25 for MERC (Methane emissions reduction compliance) UM. Year on year increase is £2.8m from £0.5m in 2023/24.

127. Project Union 1 East Coast Hydrogen spend is £2.4m. Ofgem issued draft determination against this project in May 2025 (Note, on 20 June Ofgem issued Final Determination, RRP values have not been updated).

128. There was £55.7m spend on Asset Health UM – for further information see table 6.3 narrative.

129. There was £6.6m spend on TO/SO Non-Operational Capex split between TO (£1.6m) and SO (£5.1m). For more details please see narrative for tables 6.7 TO Non-Operational Capex and 6.8 SO Non-Operational Capex.

130. There was £14.4m spend on Resilience Cyber OT increasing from £6.8m in the previous year. Please see the PCD submission for full spend detail.

Table 6.2 Projects

131. This table reports Capex spend on 7 specific Capex projects for which there is baseline funding available.

132. There are 5 projects detailed in this table which are funded through the Compressor Emissions funding stream [redacted] and 2 which are funded through the Asset Health funding stream projects [redacted]

133. There is also spend reported against the UM section of the table (Wormington, Peterborough and St Fergus, and Bacton Site Redevelopment). The final option selection report was published by Ofgem on 28 August 2024, there were no allowances values included in that publication. We have therefore used our latest forecast data to forecast matching allowances.

Project Mapping to 6.2 Funding Streams

134. Each Investment has an Output Table created at the point of sanction. It is a traceable statement included in the Investment Paper detailing the benefits and outputs delivered by the project. It is used as a data source and evidence for reporting regulatory outputs.

135. The scope of the Investment is detailed in the Output Table using UIDs, which are the Unique Reference and link back to the RIIO-T2 business plan submission. A reconciliation process allows each investment to be mapped to the appropriate RRP table and funding category.

Annual Performance

136. Hatton - The project at [redacted] is now in the commissioning phase and actual spend for 2024/25 is £22.4m, cumulatively we have spent £86.2m against an allowance of £65.6m. For more details please see Chapter 9 - Capex.

137. [redacted] Actual spend for 2024/25 is £2.4m, cumulatively £4.2m versus an allowance of £14.4m, primarily on materials and engineering design works. Under the UM we have spent £1.1m.

138. [redacted] Actual spend for 2024/25 is £9.1m, cumulatively £10.6m, primarily on materials and engineering design works, against an allowance of £9.6m. Under the UM we have spent £1.0m.

139. St Fergus FEED - Actual spend for 2024/25 is £1.0m, cumulatively £3.7m, primarily on engineering design works, against an allowance of £20.0m. Under the UM we have spent £1.1m.

140. [redacted] – Actual spend for 2024/25 is £2.4m, primarily on materials and engineering design, cumulatively £5.1m against an allowance of £14.3m.

141. [redacted] Redevelopment – Actual spend for 2024/25 is £2.1m, primarily on buried pipework and feeder filters, cumulatively £5.8m against an allowance of £10.5m.

142. With the exception of [redacted] we expect to spend largely in line with allowances.

Table 6.3 Asset Health by Intervention

143. RRP table 6.3 reports costs and workloads for its asset health programme against the intervention types it is funded to deliver as part of the RIIO-T2 settlement. Costs are split between Baseline and Uncertainty Mechanism.

144. There is no requirement to split workload between Baseline and Uncertainty Mechanism.

145. Currently our cost capture is not at a UID (Unique Identifier for an Intervention) level in the core systems, so a cost allocation methodology is required.

146. A hybrid Cost Allocation Methodology has been agreed and this has been presented to Ofgem. As per RIGs requirements, this methodology is detailed in the supporting document "Tables 6.3_6.4 Hybrid Cost Allocation Methodology_July2025".

147. For Investments Pre 4.4, an Output Table will be used to allocate Actual and Forecast costs to UIDs. Post 4.4 Investments will use UCS (Unit Cost Schedules) for cost allocation to UID Allocation. Please refer to section "4.0 Interim Methodology for Asset Health Cost Reporting" of the supporting document for further detail.

148. Investments which are at a Pre 4.4 Stage gate in the ND500 Investment Lifecycle have not reached the delivery stage of the project and do not have a finalised UCS (Unit Cost Schedule).

149. A formalised process was created for claiming Outputs, whereby Investment Sponsors submit updated Output Tables along with a Declaration of Output and accompanying evidence. Output volumes are to be claimed once commissioned and available to be used.

150. Please note, several new Asset Health UIDs were set up after Final Determination (FD). We had initially set up these UIDs under the NARM PCD to support the funding request submissions under the Asset Health UM. It was since agreed with Ofgem that newly created UIDs which are subject to the Asset Health UM would be mapped to the Non-Lead Asset PCD. We have now updated the UID mapping for the impacted UIDs as part of the RRP 2025 submission. Please see list below of the changes we've implemented within the table 6.3 template:

UID	Sub Cat1	Sub Cat2	PCD
A22.22.4.14	Electrical	Null	Non-lead assets
A22.22.4.17	Electrical	Null	Non-lead assets
A22.12.3.6	Plant & Equipment	PCD	NARM
A22.22.5.6	Plant & Equipment	PCD	Non-lead assets
A22.03.4.2	Plant & Equipment	PCD	Non-lead assets
A22.03.4.3	Plant & Equipment	PCD	Non-lead assets
A22.22.1.2	Cabs	PCD	Non-lead assets
A22.22.1.3	Cabs	PCD	Non-lead assets
A22.22.1.4	Cabs	PCD	Non-lead assets
A22.03.4.1	Plant & Equipment	PCD	Non-lead assets
A22.22.6.15	Valves	PCD	Non-lead assets
A22.03.5.1	Plant & Equipment	PCD	Non-lead assets
A22.12.3.9	Plant & Equipment	PCD	Non-lead assets
A22.12.3.10	Plant & Equipment	N/A	Non-lead assets
A22.12.3.11	Plant & Equipment	TBC	Non-lead assets
A22.22.7.1	Plant & Equipment	PCD	Non-lead assets
A22.22.1.23	Cabs	PCD	Non-lead assets
A22.22.4.12	Electrical	Null	Non-lead assets

151. Total Asset Health spend in 2024/25 was £142.0m, which is made up of £86.3m against baseline funding and £55.7m of uncertainty mechanism spend. This is compared to the phased baseline allowance of £65.2m and UM allowance of £74.5m in the same year. For further detail regarding our Asset Health spend for the year please see **Chapter 9 – Capex.**

152. The UM actuals of £55.7m in 2024/25 are mainly due to spend against P&E and Cabs above the available baseline funding. On 6 June 2025 Ofgem, released their Final Determination on our January 2024 submission. These included the funding requests for [redacted], P&E and Cabs. We already had Final Determinations for our January and June 2023 submissions which was published in December 2024. These allowances total £162.9m.

Table 6.4 Asset Health Projects

153. This table reports RIIO-T2 Asset Health costs bundled by project (PAC Investment). Multiple Intervention Types are bundled together within work packages (PAC Investments) for efficient delivery.

154. Cumulative Actual Costs are required for projects in progress up until the current reporting year. Where projects span price control boundaries, prior year costs are required to be reported in the <2022 column.

155. The workload table contains volumes delivered up to the current regulatory reporting year at a PAC Investment and UID level.

Table population

156. The actual costs reported in this table for 2024/25 will be the cost base for allocation across UIDs in RRP Table 6.3. Please refer to the supporting document "Tables 6.3_6.4 Hybrid Cost Allocation Methodology_July2025" for further information.

157. Some investments have scope across multiple funding streams, therefore only the Asset Health proportion of costs have been reported in this table.

158. Asset Health PAC spend is made up of different types of costs, which may contain a mixture of Contracting Methods. Typically, the main areas of PAC spend can be broken down into the following areas:

- Design
- Internal
- Materials
- Main Works

159. The Main works element typically makes up the majority (60%+) of AH PAC spend, so the proposal made to Ofgem via the formal consultation process is to populate the table with the Contracting Method for the majority of the Main works.

160. ND500 is the Gas Network Development Process for Capital Investments. It is a 6 Stage Framework for Investment from inception to completion and closure.

161. The Project Phase is the latest sanction position of an investment as at 16 April 2025. The Sanction position is held within C55, our Asset Investment Optimisation and Planning tool.

162. Output volumes are to be claimed once commissioned and available to be used.

2024/25 Performance

163. There are 75 sanctioned Asset Health investments relating to the RIIO-T2 Business Plan, totalling £142.0m. As at the end of the 2024/25 financial year, 7 Investment was at 4.5 stage, 56 Investments were at 4.4 stage, 2 was at 4.3 Stage and 10 were at 4.1 and 4.2 Stage.

164. A total intervention workload of 3,733.9 were delivered in 2024/25, which has reduced by 965.7 from 4699.6 in 2023/24.

165. The reduction in workload claimed year-on-year was mainly due to:

- reduction in CIPs claims in 2024/25.
- delivery of some AH activities were completed in 2022/23 but the claims were made in 2023/24, meaning there was a phasing difference in the year of the claims being made.

166. Please see further details in **Chaper 9 - Capex** regarding our Asset Health delivery of work.

Table 6.5 Redundant Assets PCD

167. There are 85 Redundant Asset PCDs, of which can be delivered by more than 1 project across the delivery period. When this happens, the Project Ref column will include all relevant PACs and the Project Name will be updated with the latest sanctioned Project Name reference.

168. Total spend has increased by £1.0m to £11.2m (18/19 prices) in 2024/25 compared with 2023/24. Majority of the projects are now in delivery.

169. At [redacted] there was a credit of -£0.6m due to the allocation of prior year spend from Decommissioning to Asset Health to align spend with the installation of new fence, gates and other assets at the site

170. Within our strategic narratives under Redundant Assets, the definition of "Outputs delivered" is determined by the physical delivery of work being completed. There are 12.4 outputs that we are not expecting to progress ('Cancelled' status) and some of those do not have dedicated PAC references within this table.

171. The list of Cancelled projects from prior year include:

- [redacted]

172. 2024/25 cancelled projects include:

- [redacted]

- Plus 2 customer disconnections (ref 4 + 5)

173. See further details in **Chapter 6.4 'Redundant Assets'.**

[redacted]

Table 6.7 TO Non-Operational Capex

186. In 2024/25 our Non-Operational Capex TO totex allowance was £21.6m, this was made up of IT Capex Baseline (£12.2m), IT Capex UM (£1.6m) and Non-IT Capex (£7.8m).

187. The 2024/25 spend of £25.4m was made up of (£11.0m) IT Capex Baseline, (£1.6m) IT Capex UM and (£12.8m) Non-IT Capex.

188. Our 2024/25 spend of £25.4m was £3.8m greater than allowances. The difference was made up of an underspend of £1.2m IT Capex Baseline and £0.1m IT Capex UM and an overspend of £5.1m Non-IT Capex.

189. The IT Capex Baseline spend of £11.0m was below allowances by £1.2m. As noted in previous years this is largely driven by some project spend being expensed under SaaS accounting rules, specifically related to TO we incurred £7.0m of project spend within our IT opex. Our spend on projects increased year on year as we ramped up delivery of our business plan commitments as we concluded our separation from National Grid within the financial year.

190. The IT Capex UM spend of £1.6m was broadly in line with allowances of £1.6m with delivery of this programme of work on track.

191. Non-IT spend increased in 2024/25, mainly driven by STEPM: Small tools, equipment, plant & machinery (2024/25 total spend £1.9m) and Strategic Spares (2024/25 total spend £4.0m)

192. IT spend increased in 2024/25, mainly driven by 'Data Sources (IT/OT) to Support Insights and Asset Performance Management' (£1.3m), 'Other IT Projects < £1m' (£2.8m), 'GT Enhance Asset Design (BIM Re-opener)' (£1.6m) and additional lines as set out below.

193. We have added as additional lines in 2024/25: 'NOC' (£0.7m), 'Finance & Corporate' (£0.9m), 'Business Services' (£0.9m).

194. RIIO-GT3 Preparatory Spend (£0.9m) was incurred in 2024/25, therefore, a separate row was added to the RRP table to capture this amount.

195. We have broken out the GT Enhance Asset Design (BIM Re-opener) (2024/25 total spend £1.6m) This project is classed as UM.

196. All other 2024/25 projects are aligned with prior years table methodology.

Table 6.8 SO Non-Operational Capex

197. In 2024/25 our Non-Operational Capex (SO totex) Allowance was £35.8m, this was made up of IT Capex Baseline (£26.6m); IT Capex UM (£9.2m) and Non-IT Capex (£0.1m).

198. In 2024/25, our spend of £28.6m was made up of IT Capex Baseline (£23.5m), IT Capex UM (£5.1m) and (£0.1m) Non-IT Capex.

199. Our 2024/25 spend of £28.6m was £7.2m lower than our allowances, largely(£3.1m) IT Capex Baseline and (£4.1m) IT Capex UM.

200. The IT Capex baseline spend of £23.5m was below allowances by £3.1m. As noted in previous years this is largely driven by some project spend being expensed under SaaS accounting rules, specifically related to SO (both operational and non-operational projects) we incurred £4.7m of project spend within our IT opex. Our spend on projects increased year on year as we ramped up delivery of our business plan commitments as we concluded our separation from National Grid within the financial year.

201. Another large driver to note is the savings realised on the Gemini programme to date.

202. The IT Capex UM spend of £5.1m was below allowances by £4.1m. This was due largely to a timing issue with significant spend slipping into P1 of 2025/26 due to a minor delay in hardware delivery and professional services spend originally expected in Q4 of 2024/25.

203. Spend increased year on year 2024/25 £28.6m vs 2023/24 £25.0m by £3.7m, Some of the larger spend projects include 'Gemini Replatforming' (£5.1m), 'GSO Modelling Services' (£1.5m), 'Regulatory Driven Gemini System Enhancements (GB)' (£1.5m), 'Infrastructure for CNI Systems' (£1.7m), 'Other IT Projects <£1m' (£2.2m) and 'GTN Refresh' (£5.1m).

Table 6.9 Resilience

204. See the PCD submission for full spend detail.

Table 6.10 Vehicles

205. This table is to show the numbers of commercial vehicles purchased by category and EV charge points purchased, the numbers of commercial vehicles and EV charge points overall, then the Capex and Opex costs associated for the year 2024/25.

206. Vehicles Population – Purchases: 27 LGVs [redacted]), 10 4x4s (10x [redacted]), and 11 EV Charging Points.

207. Vehicles Population – Total: Commercial vehicle fleet size at the end of 2024/25 is 299. There is a total of 21 EV charge points installed as of 31st March 2025. Some vehicles will have been retained or defleeted throughout the year, which explains the discrepancy between purchased vehicles and total vehicles. The assumption has been made that the number of charger points are the units themselves (charging stands) and not the number of charging ports – each charging unit has 2 charge ports (2x vehicles can be charged at any one time by one charging unit).

208. Costs – Capex: This is the amount spent on the 37 new vehicles (chassis & conversion) up to P12 2024/25 that have been receipted, and the installation costs for the EV charge points.

209. Costs – Opex: All running costs associated with the commercial vehicle fleet including service, maintenance & repair, road fund licencing (tax), breakdowns, accident management, commercial hire vehicles, fleet management fees, fuel costs (including EV charging) and vehicle related accessories/consumables using the fuel cards (eg, adblue, engine oil). The EV charge point costs will be for the repair and maintenance of the chargers themselves, not the installation.

Table 6.11 Disposals

210. This is the first time this table has been introduced during RIIO-T2. It was previously used in RIIO-T1 to capture proceeds on asset disposals. It will be used to determine any adjustment to the RAV at the end of RIIO-T2. There is a supplementary excel pack ('6.11 Tables FY22-24 Disposals.xls') which captures the disposal details for the previous 3 years of RIIO-T2.

Table 7.1 Pipeline Data

In Line Inspection (ILI) runs

211. ILI Planned 2024:

- There were 10 ILI runs proposed/scheduled in 2024 using the Intervals 2 tool
- Three ILI runs were added to the 2024 schedule due to operational requirements
- Two ILI runs were added to the 2024 schedule from Deferrals in 2023
- 15 ILI runs were scheduled in total for 2024.

212. ILI Planned 2025:

- 15 ILI runs are planned for 2025
- This includes 10 proposed/scheduled using the Intervals 2 tool
- Two of the planned 2024 ILI runs rolled over to early 2025
- Three inspections added for operational requirements.

213. ILI Completed 2024:

- Of the 15 planned ILI runs for 2024, two were deferred until 2025 due to Operational constraints
- 13 ILI runs were completed in 2024

214. Depth Of Cover surveys (ILI) planned and completed:

215. All programmed PSSR ILI runs are scheduled to include the depth of cover service

216. ILI digs 2024:

- ILI digs predicted by planning tool – ILI Digs planned for 2024 are based upon the volume of ILI runs performed in 2022 multiplied by a historical intervention run rate.
- Overall, 62 ILI digs/interventions were programmed for delivery in 2024. 48 ILI digs were triggered for 2024 by the ILI runs performed in 2022. 11 additional digs were included from a within year ILI run. Three AGI inspections were included on the Construction list that were completed by Ops and not part of the 2022 ILI Outputs.
- 55 out of the 62 ILI digs were completed in 2024 . Of the remaining seven, one dig was deferred to 2025 due to operational difficulties/safety, Four AGI inspections were removed from the plan following site inspection, two AGI inspections were removed from the programme.
- Of the 55 ILI digs/interventions completed, all required a repair.

217. ILI digs 2025:

- ILI digs predicted by planning tool – ILI Digs planned for 2025 are based upon the volume of ILI runs performed in 2023 multiplied by a historical intervention run rate.
- Based upon the review of the 2023 ILI results, there are currently 50 ILI digs/ interventions planned for 2025. 11 outputs from 2023 programme have been removed due to being remediated in 2024. One ILI dig was carried over from 2024 to be completed in 2025.

Defects – **New reporting requirement

218. An additional reporting requirement was added that is not part of business as usual reporting processes, therefore we are not able to provide this data with a high degree of confidence and it has not been through the same level of assurance as other data provided in the RRP table. As such it is included in the table narrative only and provided on a best endeavours basis.

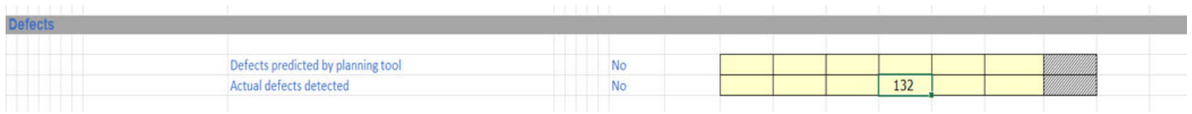
219. We do not have a mechanism to predict the volumes of individual defects that will be excavated, examined and remediated during an ILI dig

220. The approach to provide the number of features identified during each ILI Dig is outlined below:

221. All information is manually collated on a dig by dig basis and is subject to interpretation by the ILI vendor and the Asset Engineering team

222. Individual features from all defect categories have been manually counted; e.g. corrosion, dent etc.

223. Metal loss corrosion features have been counted using damage assessment interaction criteria. There may be a number of separate features within one excavation.



224. We would welcome further conversations with Ofgem on the requirement for this data going forward and more broadly regarding all pipeline data.

Pipework (CIPs)

225. 247 P1 and 447 P2 CIPs defects associated with pipework (AGIs) at the start of the 2024 reporting year.

226. Zero new P1 and Zero new P2 defects were identified from new surveys

227. Zero CIPs defects previously categorised as P2's have progressed to be P1's.

228. Zero P1 and Zero P2 defects associated with AGI pipework have been resolved.

Pipeline (CIPs)

229. 95 P1 and 524 P2 CIPs defects associated with pipelines at the start of the 2024 reporting year.

230. Four new P1 and 14 new P2 defects were identified from new surveys.

231. Zero CIPs defects previously categorised as P2's have progressed to be P1's.

232. Two P1 and zero P2 defects associated with pipelines have been resolved.

233. The length of P1 defects has increased from 6.4km at the close of 2023/24 to a length of 6.5km at the close of 2024/25.

234. The length of P2 defects has increased from 148.6km at the close of 2023/24 to a length of 152.7km at the close of 2024/25.

235. For the 2024/25 reporting year, National Gas has moved from a position of CIPs reporting using offline tools to CIPs reporting using core system (Maximo). At present, core system allows us to report on volumes of open and closed defects.

236. Lengths of CIPs defects are based upon the new volume of defects multiplied by the average length/km of the defect type.

Unplanned Interventions

237. Annual predicted anomaly interventions - this will always be zero.

238. Actual annual anomaly interventions required - Zero.

239. Annual anomaly interventions analysed, mitigation identified, and implemented - Zero.

Incident reporting

240. Workforce safety incidents - There was one workforce safety incident associated with Pipelines in 2024/25.

241. Pipeline / process safety incidents - There was two process safety incidents in 2024/25, resulting in an uncontrolled release of gas.

242. Environmental incidents - There were no environmental incident recorded in 2024/25.

Table 7.2 Activity Indicators

243. Shrinkage= (Own Use Gas) + (CV Shrinkage) +(Unaccounted for Gas)

244. [redacted] added for Entry and Exit for 7.2. Data amended for February and March for section Actual flows at system entry points, site went live 01/02/2025 and data amended for March for NTS direct connect power stations (by LDZ) for EM LDZ, site went live 18/03/2025.

Table 7.5 Compressor Performance and Utilisation

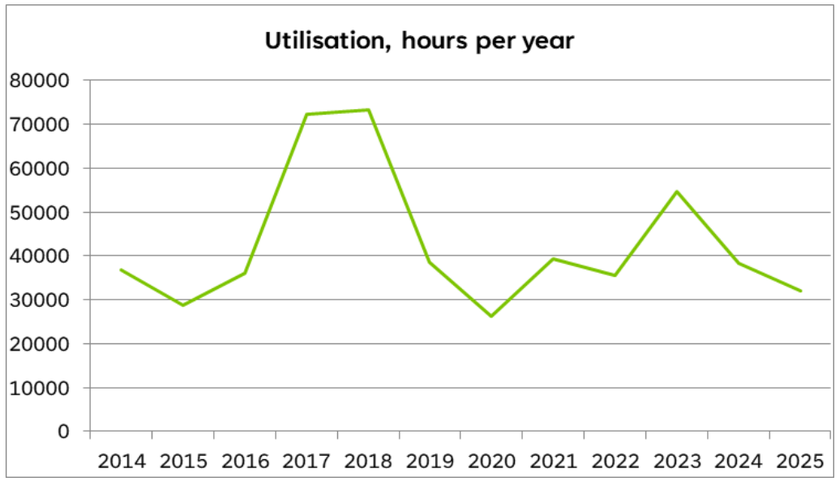
Operating Hours

245. This table details the running hours of each compressor unit by month. This data is measured and obtained from the emissions monitoring system which is installed on each compressor site.

246. No changes to the compilation process since last year.

247. The compressor running hours have reduced compared to last year, see the figure below.

248. Figure 1: Annual compressor utilisation



249. This is mainly due to more balanced inputs and reduced exports to Europe. Further detail of compressor usage can be found in Section II of the Strategic Narrative.

250. As stated in table 7.6, there has been no change in the number of compressors compared to last year.

Forecast Operating Hours

251. Predicted run hours have been calculated using a five-year rolling average with adjustments made to ensure alignment with maintenance, Network Review and the RIIO-GT3 Business Plan. Network Review hours are often higher as a worst case considered for obtaining Permits. Where there are inconsistencies between the Network Review and RIIO-GT3 forecast the latter has been used.

252. For the RIIO-GT3 business plan, the Counter Factual scenario has been used. The run hours per capability zone are calculated before dividing the hours between compressor stations based on operating strategy.

253. Known outages would mean forecast hours are re-allocated to another compressor within the region. Disconnected/Decommissioned compressors have been accounted for and hours have been reallocated to different units. IED or limited life units have been altered to ensure they conform with the regulatory requirements.

Forecast to Actual FY 2024/2025

254. Compressor running hours across the network were significantly lower than forecasted, continuing the decline seen since the previous year. This reduction was due to outages at sites including [redacted] units remaining non-operational throughout the year. Additionally, the delayed commissioning of four new compressor units at [redacted] until December limited their impact on annual totals.

255. Operational dynamics also shifted, with Aberdeen units taking on a primary role due to reduced flows at [redacted] experienced fewer running hours due to decreased export demand to Europe, and [redacted] saw increased activity later in the year [redacted] were delayed.

256. A mild winter further reduced compression demand, like the previous year, therefore [redacted] were underutilized due to low demand.

FY 2024/2025

257. An extensive maintenance schedule is again planned this year with several compressor isolations. However, these will be in the summer when less compression is normally experienced.

Consumed Hours

[redacted] A has low running time due to low storage levels at NW.

[redacted] has required a lot less running time due to reduced St Fergus flows. [redacted] has been sufficient to support.

[redacted] Not required due to Aberdeen being able to handle St Fergus flows.

[redacted] - Lower storage levels in NW have meant NK not required as much.

[redacted] Low running time due to testing and supporting of the commissioning of the new units D & E.

Planned Unavailability

263. April – Sept

264. The pattern of planned unavailability shown in the table is indicative of what we would expect with planned outages targeting, April to September which is maintenance / project season.

265. Key Planned Outages:

[redacted]

- [redacted]
- [redacted]

- [redacted] – vent valve repairs and general maintenance
- [redacted] PSSR inspections and major overhauls
- [redacted] two – capital works were in place throughout the year to improve reliability of units once decision was made to return them to service.
- [redacted] – cabs improvements during extended summer outage.
- [redacted] D – cabs improvements during extended summer outage.
- [redacted] – electrical improvements.
- [redacted] – numerous improvements to compressor units in order to improve site reliability.
- [redacted] – electrical improvements
- [redacted] of non-return valve and anti-surge valves across the station.

267. Inhibited Stations / Units

268. The following sites / units were inhibited for the summer period to preserve life of the asset.

[redacted]

- [redacted]
- [redacted] – corrosion found on station pipework which will need to be addressed before units return to service, no date yet agreed for improvements and station not considered a priority currently.
- [redacted]
- [redacted]

270. Unplanned Unavailability

271. Outage Extensions:

272. Key Outage extensions: -

- [redacted] awaiting for tie-ins of unit into new control system, expected July 2026.
- [redacted] – work on installation of DLE unit extended into summer months and decision was made to revert back to original Avon unit lengthening return to service time.
- [redacted] – overrun of approximately 3 weeks in August for outage work towards commissioning of new unit.

273. Significant Unplanned Outages

- [redacted] – failed dry gas seal, unplanned outage from March to June while this was replaced.
- [redacted] Unit unavailable with significant mechanical issues that have been investigated during 2024/25 period. A local start and stop has been tested on the unit with some success but remote running still to be proved.
- [redacted] following a reported fault, decision was made to bring forward unit decommissioning and will be used to support hydrogen testing at Spadeadam.
- [redacted] – both experienced problems with mapping and subsequent emissions testing with numerous third parties involved with investigations forcing unavailability of unit during this time.
- [redacted] – failure of PT speed probes resulted in an unplanned outage from October to December, opportunity used to change out engine and CT nozzles at the same time.
- [redacted] – short unplanned outage required for server failure.

Table 7.6 Compressor assets

274. Table 7.6 contains information about the compressor fleet. Most of the data is static and will not change year to year unless as a result of a major project to build and commission a new unit, decommission a unit, or make a significant operational modification to an existing unit. The last 6 columns of data are dynamic and are used to track the last overhaul date, remaining consumed hours, and next forecast overhaul date of each installed Gas Generator (GG) and Power Turbine (PT) in the fleet. Where consumed hours until next overhaul is showing as negative the PT or GG is due an Overhaul. Each unit showing negative hours is within the 10% tolerance for Overhauls and will have a risk assessment carried out to determine asset condition & next steps with the overhaul being planned in for the next available opportunity.

275. The process of compiling this table has remained the same since last year with DNV continuing to manage the overhaul planning tool.

276. Electric Units will have a N/A against overhaul Data as they are calculated off of a time based duration not run hours.

277. [redacted] Gas generator has exceeded the hours on the overhaul planner. OEM recommendation is for overhaul at 50,000 Run Hours the overall planner uses consumed hours which is where the deviation is shown. The estimated forecasted run hours for this unit will not exceed the OEM recommendation before planned overhaul in September 2025.

278. Summary of changes from 2024 report:

- [redacted] Isolated
- [redacted] Isolated
- [redacted] PT Overhauled due to all hours being used.
- [redacted] new PT installed due to upgrades required, new overhauled GG installed
- [redacted] Engine exchange, New GG Installed due to Oil leak & near end of life
- [redacted] New GG Installed from Fleet spares stock.
- [redacted] – PT replaced due to breakdown. GG replaced due to Oil leak.
- [redacted] engine exchange GG replaced with removed GG from [redacted] repair for Fleet Management.
- [redacted] GG replaced due to breakdown. GG from [redacted] A repaired and installed in Carnforth for remaining hours to be used
- [redacted] overhauled, Service Exchange.
- [redacted] Replaced due to breakdown. Service exchange
- [redacted] exchange due to breakdown
- Dispose/Abandon corrected to N/A from Previous years table where commissioned Date was copied into both columns.
- Column data AJ (Unit Power Rating) & AO (Unit/site max flow mcm/day) updated with latest data from UNAA Compressor Assumptions & Regulations file following updated document.

Table 7.7 Emissions

279. Table 7.7 provides details of emissions from the operation of the compressor units on the NTS.

280. The CO2 for each unit is calculated using:

- the natural gas fuel usage data as metered on site; and
- the Department for Business, Energy & Industrial Strategy (BEIS) carbon emissions factors and calorific values as used in the UK Greenhouse Gas National Inventory Report (2023 data as presented in the National Inventory Report published in 2024), which is used for compliance to the UK Emissions Trading Scheme Regulations (UK ETS).

281. The NOx is calculated from the emissions monitoring system which is installed on each compressor site.

282. In the section "Methane emitted from plant", the data for emissions from the pipeline network is an estimate of both kilograms of methane released and the number of venting events.

283. For the 2024/25 data the both the venting mass of methane and the number of venting events has been revalidated to give new more up to date figures. This data has been validated by

external Environmental Consultants, taking into account the changed asset base of the NTS since the last validation in 2012. New asset information and calculation methodologies have been employed to increase the accuracy of the data and include new identified asset types. Due to the updating methodology, the legacy and updated figures are directly comparable, however their figures are broadly of the same magnitude.

284. The vented emission is estimated by the types of maintenance and operation required of the NTS pipeline asset types, the frequency of that work and the estimated emissions released undertaking each of the maintenance activities.

285. The venting events number is based on the estimated number of vents required to undertake all the maintenance and operations during the reporting year.

286. The emissions from "associated equipment" for both the mass of methane released and the number of venting events is measured by the emissions monitoring system that is installed on each site. The mass of gas is calculated by the known measured volume of the associated equipment and the pressure of the natural gas when it was vented.

287. The amount of CO2 emitted in 2024/25 has decreased by 21.0% compared to 2023/24. This is due to a decrease in utilisation, 15.9%. The utilisation around the network has changed as it is dependent on inputs and demands on the system.

288. NOx emissions have decreased by 31.5% from 2023/24 levels. This is due to a decrease in utilisation but also a shift towards BAT units.

289. The number of emission events from associated equipment is lower than the 2023/24 submission (3,267 events compared with 3,436). There has also been a decrease in methane emissions from 2,066 tonnes to 1,793 tonnes, see narrative for table 9.11 for more information.

Table 7.8 Asset Data

290. Minimal changes to pipeline length due to HS2 Diversion (7628.4km – 7628.6km).

291. 1 Additional Exit point – [redacted] No value has been entered in cell w360 as the site has changed in Primary Discipline only, and therefore has not been Constructed/Abandoned or Decommissioned.

292. 1 Less Exit Point – [redacted] s now abandoned

293. 1 Additional Entry point – [redacted] No value has been entered in cell w384 as the site has changed in Primary Discipline only, and therefore has not been Constructed/Abandoned or Decommissioned.

294. 5 Less Block Valve sites

- [redacted] moved to Exit and Entry point. No value has been entered in cells w557 and w634 as these sites have changed in Primary Discipline only and therefore have not been Constructed/Abandoned or Decommissioned.
- [redacted] has been piped through and Decommissioned.
- [redacted] has been piped through and Decommissioned
- [redacted] has been piped through and Decommissioned

295. 3 Additional Block Valve sites:

- [redacted]

[redacted]

Table 7.9 Forecast Scenarios

297. The purpose of this table is to collect information to exhibit the gas supply peak projections for each entry point for all forecast scenarios. The peak forecast for entry points is used as a guide which help to inform network reinforcement investment decisions.

298. The data for RRP table 7.9 – Forecast Scenarios submission comes from the latest 2024 GTYS Chartbook and data tables. Available to download at Gas Ten Year Statement (GTYS) | National Gas

299. The numbers taken from 2024 GTYS Chartbook for use in the RRP submission are the Peak Supply by Terminal Bacton Split numbers.

300. The "Onshore" value in the GTYS Chartbook – Peak Supply by terminal Bacton Split worksheet represents data for Biogas, Green Gas and Shale.

301. Storage values are taken from table A3.2 in GTYS Chartbook and data tables. Storage values are constant through all forecast scenarios and years.

302. The data and associated changes have been cross checked with previous submissions and provided by and in collaboration with NESO. A summary of the key differences is:

303. There were considerably more differences in this year's comparison compared to the last. This is due to the assumptions and FES scenarios changing in this year's GTYS, scenarios have been reassessed to reflect their strategic choices made to achieve decarbonisation. The main change seen predicts a narrower range of scenarios when compared to the previous scenarios. The updated scenarios can be seen here:

- System Transformation -> Hydrogen Evolution
- Consumer Transformation -> Electric Engagement
- Falling Short -> Counterfactual

- Leading the Way -> Holistic Transition

304. [redacted] showed a >8% change from the previous year because high expected flows into the terminal.

305. [redacted] showed a >5% change for Hydrogen Evolution and Electric Engagement due to higher flows whereas there was a >-5% change in Holistic Transition and Counterfactual scenarios, with lower flows being forecasted.

306. [redacted] sees a 20% increase due to the phase 4 expansion whereas [redacted] has decreased by >9% as compared to previous forecast.

307. [redacted] has seen a change ranging from -9% to -37% across all scenarios due to lower expected supply.

308. [redacted] has had a change ranging from +/-5% (depending on scenario) due supply being reduced.

309. [redacted] has increased by 23% due to an increase in its capacity and being active for an additional year.

310. [redacted] has had a decrease by -30% due to a more conservative report for the storage site.

311. Biogas/Green/Shale had a change of -86% to +37%, with counterfactual seeing the largest decrease and hydrogen evolution the largest increase. Counterfactual sees the largest decrease because it has been assumed biomethane is unlikely to receive support from the government. Whereas hydrogen evolution sees the largest increase due to biomethane being used to aid in offsetting carbon emissions. The current (2024) GTYS methodology is based on using biogas feedstock forecast from the CCC's 6th carbon budget to provide an upper limit for production. In addition to this, shale gas is no longer considered in any of the scenarios.

312. All other changes are less than 5% and not deemed to be significant.

Table 8.1 Satisfaction Survey

313. Table 8.1 depicts the Customer Satisfaction Score (CSAT) and the Stakeholder Satisfaction Score (SSAT). The table compilation process remains the same as last year.

314. The overall CSAT score increased from 8.56 (2023/24) by 0.33 points to 8.89 this year. This score is above our performance target of 7.8 in RIIO-T2. The increase in score reverses the marginal downward trend in scores from 2021/22 to 2023/24.

315. This year we received 74 CSAT responses from a total of 151 submissions to customers across our business, equating to a response rate of 49%.

316. The reduction in larger industry-wide webinars such as the "Shaping the Future" programme (which accounted for 17 responses in 2023/24) has led to a decrease in overall responses from 79 but an increase in volumes excluding events by 8 responses. This is a result of us focusing on increasing the number of significant interactions with our customers that we receive responses from.

317. Increasing our volume of significant interactions surveyed and response rates remain important to our business, and we will build on what we have implemented this year. This includes highlighting to customers our £10 donation to charity for each response received, working with business areas to improve CSAT response rates through sharing best practices across business areas, and improving or replacing webinars with more interactive and meaningful events. In addition, in 2025/26 we plan to work with business areas to embed CSAT from the start of interactions with customers, and work to update our survey with BMG to ensure it captures customer feedback but is streamlined to customer's interactions across the business.

318. As a result of our work to increase response rates this year, we have achieved a continued increase in CSAT response rates at 49% this year, which is 10 percentage points higher than the 39% in 2023/24 and much larger than the 27% in 2022/23. This highlights the positive impact of targeting significant interactions.

319. Our SSAT score has fallen from 8.75 in 2024/25 to 7.93, although this is still above our performance target of 7.4 for RIIO-T2. The inclusion of our procurement partners in our stakeholder survey has led to a considerable increase in submissions from 139 in 2023/24 to 443 in 2024/25 and an increase in responses from 40 to 100 (including 1 unsure response). However, some lower scores received from our procurement partners are being investigated and feedback is being actioned internally.

320. This year we have included our procurement partners under SSAT. The rationale behind this is that procurement indirectly impacts the services we provide across the business. We plan to continue surveying our procurement partners going forward.

Table 8.2 BCF

321. Table 8.2 collates emissions in tCO2e of relevant "Scope 1, 2 and 3" emissions included within the businesses Greenhouse Gas (GHG) inventory. This is aligned to the GHG Protocol under the operational control approach that we take for our carbon accounting.

322. Compilation processes utilised for the various data sources remain the same as the previous year apart from some minor improvements to methodology. However, please note the additional categories introduced from 2023/24 onwards.

323. Within this submission with data covering April 2024 – March 2025, it can be seen that individual categories are consistent with the previous year. Compressor venting and combustion totals are lower that 2023/24. These emissions are influenced by supply and demand.

324. For 2024/25, there is a REGO in place for one of our archive/office sites, therefore consumption from this site is not converted to tCO2e as the site is supplied with 100% renewables.

325. All methodologies are detailed within our internal SOP and 2024/25 Reporting Methodology.

326. There are some assumptions within the carbon accounting process for our data sources, which are expected to have limited influence on accuracy and are required for successful conversion of activity data to tCO2e. Assumptions remain where it has not been practicable to obtain the level of data required for resolving such assumptions. For some emission categories we apply assumptions to our data to enable an emission to be calculated, typically this is to facilitate the attribution of an emission factor. Below includes a summary of the assumptions we are currently applying to our data:

327. Vehicles categorised as "Electric - 1400cc or less" in our data are assumed to be average battery electric vehicle. Due to the limited charging facilities on site, it is assumed that public charging facilities are utilised during business trips. In the case that vehicles were charged using company charging facilities, the potential double counted consumption is assumed to be minimal at this time. Fleet EV's are assumed to be Class I Van Battery Electric Vehicles in order to apply a conversion factor.

328. All vehicles defined as hybrid utilise dual fuel hybrid vehicle emission factors, opposed to plug in hybrid factors. This is due to expensed mileage in company cars not providing distinction of plug-in electric hybrid vehicles. In addition to this, there is no guarantee that the plug-in feature of the vehicle is being utilised.

329. Vented methane is converted to CO2 only for UKETS reporting. For consistency, this figure is utilised for this table. The CO2 content of the Natural Gas is not included as this is deemed immaterial based on the following: In 2023/24, we reported 2,066 tonnes of methane equivalent to 51,646 tonnes CO2e. CO2 percentage varies but the highest was 2.5% or 52 tonnes. This equates to 0.1% of the venting. This is a worst-case position of annual compressor venting emissions.

330. Standard reference gas conditions are used to calculate any venting quantities.

331. Complete combustion of fuel for compressor fuel combustion and diesel utilised for combustion plant. This aligns to UK ETS verified calculations. In 2023/24, the calculated incomplete combustion emissions on the compressor fleet was assessed and deemed De Minimis and an assumption of complete combustion reduces resource/complication to the methodology. During 2024/25 the CO2e emission and combustion levels have not significantly changed and so the assumption has been made that these emissions are still De Minimis.

332. For all conversions of methane to tCO2e, the 25 GWP is used to align to other avenues of reporting. The most recently published DESNZ and BEIS conversion factors are used for all other categories aside from Scope 3 hire cars, where the data providers vehicle specific conversion factors are deemed to be more accurate.

333. Conversions of waste for Scope 3 reporting is using the most applicable DESNZ conversion factor. The rows for this category (row 63 & 64) were previously titled "Spare" - these have been updated to "operational waste" and "office waste". . Business Travel "Spare" Row 72 has been updated to title of "Hire Cars".

Table 8.3 Environmental Scorecard

334. The Environmental Scorecard table includes environmental data relating to the scorecard ODI, with comparison to a baseline.

335. Although data sources and processes for this table have remained the same to the previous year, there have been corrections to all previous year data for office waste.

336. This was following detailed review of the baseline data utilised for this table. It has been confirmed that the baseline data for 2019/20 for the office waste section of this table includes National Gas allocated proportion of National Grid House only. Therefore, additional sites added to improve representativity of this data of our office waste must be removed.

337. The office waste data has been restated for all previous years of RIIO-T2. Upon review of the baseline, it was found that the baseline submitted for 2019/20 was inclusive of the Gas Transmission share of National Grid House. Therefore, other office sites have now been removed from this and only the allocated waste of this main office are included. This data will be used to revise numbers for the environmental incentive and the related EAP target. Please note that this site was the largest contributor to office waste and other office locations are included in our Scope 3 calculations for office waste in table 8.2.

Assumptions/Considerations:

338. The Business Mileage category includes mileage undertaken in personal, hire and company cars. Due to the requirement of the table to input an activity data and a limited number of rows, some data is assumed to be a certain vehicle type. For example, all hire cars and unspecified cars in expense claims are assumed to be Petrol 1601 to 2000cc vehicles due to being the worst case scenario. This allows a conversion factor to be applied. (This is consistent with prior year).

339. From 2022/23, we include the water use of an additional office site for which data became available.

340. We receive data from our expensing system for medium sized vehicles as Hybrid Petrol & Petrol Vehicles as 1401cc to 2000cc, Hybrid Diesel & Diesel Vehicles as 1601cc to 2000cc. Please note that the lower limit of engine size for the medium diesel vehicle conversion factor is 1700cc. As our vehicle classification doesn't directly align to this, vehicles between 1600cc-1700cc will have the medium vehicle conversion factor applied. This is expected to have minimal impact on representativity of figures.

341. Emissions resulting from Operational Fleet are consistent with the previous year. Business mileage emissions have reduced slightly due to a small reduction in overall mileage.

342. Total tonnage of operational waste has reduced and recycling rates have remained similar.

343. Please refer to the Environmental Incentive strategic narrative for information on performance against the benefit and penalty threshold in comparison to 2019/20 baselines.

Table 8.6 - NIA

344. The table captures the financial spend and forecast for Network Innovation Allowance funded projects in RIIO-T2. There have been no changes to table compilation since 2022/23.

345. Actual for Year 4 is £3.9m less than forecast primarily due to contracting delays and resource limitations in generating new projects. Year 5 has been remapped, accounting for a reduced forecast in Year 5 due to the close of the RIIO-T2 period. Resourcing is being uplifted to support.

346. For 2021/22 the internal expenditure was in-excess of the licence condition 5.2.6 (internal expenditure Max 25% of total NIA expenditure). This was due to a number of factors including establishing a new team to govern the NIA funding ahead of project sanctioning, delays in supplier contracting and upfront Year 1 costs for the RIIO-T2 period. This has levelled out in Year 2, Year 3 and Year 4 and is in line to achieve the Max 25% of total NIA expenditure throughout RIIO-T2

347. For RIIO-T2 Year 4 the internal expenditure has been managed to ensure compliance with licence condition 5.2.6.

348. NIA Future Project Spend (Placeholder) line has been included to illustrate forecast utilisation of the allowance.

349. Reference number for project Hydrogen Blending Implementation Programme Manager: Phase 2A reported in 2023/24 as NIA_NGT0234 has been updated to reference number NIA_CAD01S02.

Table 8.8 NIC

350. The table captures the financial spend and forecast for Network Innovation Competition funded projects in RIIO-T2. There has been no changes to table compilation since 2023-24.

351. Actual for Year 4 is £0m due to project completion at 2023/24.

352. The project is now closed and no further costs are expected in future years

353. This table should be removed for 2025/26 as there are no further costs expected. There are no PO commitments and the Project Code and WBS legs have all been closed to prevent any further costs

Table 8.9 SIF

354. The table captures the financial spend and forecast for Strategic Innovation Fund (SIF) projects in RIIO-T2. There have been no changes to table compilation since 2023/24.

355. Actual for Year 4 is £12.5m less than previously forecast, this is primarily due to the fact that the SIF process is a competition, and it is unknown exactly how many projects will be progressed to the next stage, how many projects we were asked to support from the other networks and how many projects are successful through the competitive process. It also accounted for assumptions made for the two Beta projects that have continued this year but have had their forecasts remapped across the remainder of RIIO-T2

356. Year 5 forecasts have been based on the completion or in-flight progress of relevant Rounds of Beta, Discovery and Alpha projects approved, this is based on all current projects being successful through the SIF process.

357. Reference number for project Cadent Beta Digital Platform for Leakage Analytics (DPLA) reported in 2023/24 as SIF_10062698 has been updated to reference number CAD_SIF0005.

Table 8.10 re-opener Pipeline Log

358. The forecasts included in this year submission align to UM submissions to be submitted in the future. Each UM submissions has a decision from Ofgem indicating the approved option and its estimated cost. All the estimated costs are based on the FOSR option approved by Ofgem. It is however of paramount importance to note that all the estimated FOSR costs are currently under review as part of developing cost books for the final cost submissions. This effectively means there is high chance of the final costs changing. However, the table compilation process has not changed since the previous year.

359. The Re-opener Pipeline log is a "live" rolling forecast. The key updates conveyed in the RRP 2024/25 pipeline log compared to the outlook of 2023/24 are summarised below:

360. The Western Gas Network project (now West Import Resilience Project) is being revived for delivery. The total value of 91.2m is currently indicative with cost accuracy to be ascertained as multiple cost submissions are detailed in the attached BPDT. NGT are currently working to deliver the project in RIIO-GT3 with the proposed pipeline components of the project to be delivered in line with the communication set out in the BPDT and subject to the prevailing factors communicated with Ofgem.

361. Project Union 1 now being included in totex spend/forecast on 3.1/3.5 following Ofgem decision. Project Union 2 and 3 FEED has been updated to an estimate of £143.0m in line with the latest projections.

362. The [redacted] Forecast spend has been informed by the October 2024 Reopener submission figures. In addition, the estimated 2025/26 cost have been excluded in the pipeline log as they will be covered in the allowances on table 3.3 and table 3.5 of the RRP. The same principle applies for all the MCPD projects.

363. All the MCPD projects forecast costs are based on the FOSR estimate values and further aligned to Ofgem's final decisions. 2025/26 values are excluded from the spend profile as these have been included in table 3.3/3.5 allowances. The table below summarises how the figures in the pipeline have been arrived at.

MCPD Project	FOSR approved cost (£m)	2025/26 forecast (£m)	Final pipeline log estimate (£m)
[redacted]	£172.589	£26.657	£145.932
[redacted]	£66.710	£3.676	£63.034
[redacted]	£62.883	£11.595	£51.285
[redacted]	£21.405	NA	£21.405

Tables 8.10a and b

364. Table 8.10a provides further levels of granularity on the projects that make up Uncertainty Mechanisms where there is submission due in the coming years.

365. Similar to the 2024/25 pipeline log, there are no inputs to the SO appendix (table 8.10b)

Confidentiality

366. The re-opener pipeline log contains certain confidential information and therefore should not be published without due consideration of necessary redactions. The re-opener forecast expenditure values are commercially sensitive because in many cases are/will be the subject of competitive procurement events. [redacted]

Table 8.11 net zero UIOLI

367. The table captures the financial spend and [redacted]

369. Project East Coast Hydrogen Pre-FEED was advised as completed in 2023/24 however unexpected recharged costs of £34k were posted in 2024/25. The project remains completed and no further costs are expected.

370. 2025/26 forecast has increased by £0.7m due to remapping of available forecast and the preparation of project BP H2Teesside Blending Pre FEED which will support a net zero re-opener submission

371. Net Zero Future Project Spend (Placeholder) line has been included to illustrate forecast utilisation of the allowance.

Table 8.12 DRS Costs

372. The purpose of the table is to report the costs related to the Directly Remunerated Services which remain in the licensed business. Revenue is reported in table 4.15. As per the RIGS there is not a requirement to report the costs for De Minimis and Consented activities.

373. Total costs for Directly Remunerated Services are £16.8m which mainly relates to diversionary works under an obligation. This is a £4.0m decrease compared to prior year driven by HS2 schemes nearing completion partially offset by increases in other schemes such as the diversion of feeders 1 & 11 due to works on the A66.

374. A more detailed analysis has been carried out this year and values for Connection Services (£0.2m), PARCA (£0.02m) & DRS Miscellaneous (£0.2m) are now shown separately.

Table 9.1 Operating Margins (OM)

375. We are required to procure Operating Margin (OM) service requirements on an annual basis in accordance with TPD Section K of the Network Code, the obligations set out in our transporter licence, and the obligations detailed in our Safety case.

376. The OM service may be used in the intermediate period following operational stresses to allow market actions to take effect and during the potential run-down of the system in the event of a Network Gas Supply Emergency. There was no OM service utilisation during the 2024/25 incentive year. The OM service was last used during March 2018.

377. All costs incurred for the procurement and utilisation of the OM service are cost pass through in accordance with our Licence obligations. Under the RIIO-T2 regime, we have a reputational incentive to promote market competition through the procurement of OM services for our customers. We aim to meet the OM requirement in the most economic and efficient manner.

378. During February 2024, the OM requirement for May 2024 – April 2025 was determined as 982 GWh, compared with 948 GWh the previous year.

379. OM service procurement costs have decreased from £20.3m for the 2023/24 financial year to £18.5m for the 2024/25 financial year, primarily driven by the lower volume procured and a greater proportion of the requirement being allocated to Power Stations.

380. We continue to focus on stimulating a competitive market response, through industry engagement to identify and secure new OM service providers.

381. For the OM year 2024/25, 48% of our requirement was secured by demand reduction, 36% from storage and 16% from LNG facilities.

382. We continue to engage with current and potential market participants with the aim of maximising competition. Whilst tender volumes and number of sites offered remains high, we still see some potential for further competition

Table 9.6 Residual Balancing Incentive

383. The residual balancing scheme incentivises us to balance supply and demand on the gas day and to minimise the impact we have on the market when we deem it necessary to trade gas to balance the network.

384. The Linepack performance measure represents the physical quantity of gas in the system and is measured at specific times of the gas day. The linepack performance measure (LPM) incentivises us to minimise differences in the linepack volumes between the start and end of the gas day. This is to ensure that any imbalances within the day are resolved and the cost of resolving these system imbalances are levied to those system users responsible for the imbalance.

385. The Price performance measure (PPM) evaluates the impact we have on the market in its residual balancing role by measuring the price range of its trading actions compared to the System Average Price (SAP). This incentivises the Gas System Operator to minimise the impact it has on market prices.

386. 2023/24 residual balance incentive performance was £0.84m compared to the 2024/25 residual balance incentive performance which is £1.06m.

387. In 2023/24 the System Average Price (SAP) on average was 2.88 p/kWh compared to 3.27 p/kWh in 2024/25

388. In 2023/24 the Average LPM was 1.76 mcm compared to 1.63 mcm in 2024/25

389. In 2023/24 the Average PPM was 0.90% compared to 0.51% in 2024/25

Table 9.11 GHG

390. The purpose of the 9.11 GHG is to give a numerical summary of vent allowances by sites and by process.

391. The table compilation process has not changed in relation to previous years, however due to addition of new units to the network, the template was updated to accommodate the new units. This has been approved by Ofgem.

392. In order not to manually manipulate data, [redacted] station was changed to [redacted] station 2 in the master sheet, station vents were previously only from station 1, this is a temporary fix.

Table 9.12 Maintenance and Access Planning

393. The tables outlining the different maintenance activities carried out on the network during 2024/25 are reflective of the work undertaken during the reporting year. A sense-check has been done for consistency; any discrepancy was found to be due to this table reporting for the calendar year which was expected.

394. The values that are provided in the bottom tables are a breakdown of what has been reported in the incentive (top) tables by outage type to give more context to non-RVO work. This shows that the majority of maintenance plan days were for asset replacement works (72 days) followed by defect remediation (58).

395. This year saw 10 maintenance days used for defect remediation work that could not be aligned with an exit customer outage. The timing of this outage was dependent on a full flow cessation at a network entry point, therefore maintenance days had to be called to enable this work.

396. This year also saw 10 change days; six of these were due to an extension of asset replacement work, while the remaining four were because of replanned RVOs. Two ILI runs planned for the year were cancelled due to customer requirements and replanned outside of the incentivised period.

397. It has been decided that "Completed with amendments" covers jobs where dates have been extended once the job has commenced. "Replanned" is where a job has been moved within the reporting year, and "Cancelled" covers jobs that have been removed completely from the year's plan.

398. The projections for 2025/26 reflect the current position for all figures at the start of the reporting year, aside from the change days (MCICDt) which represents an estimation based on the percentage change seen in 2024/25 of 4.42%. It is assumed that change figure is the most likely to be seen in the final year of RIIO-T2.