Cadent
Your Gas Network

Strategic Performance Overview

2024/25

Contents

1. Strategic summary

CEO statement

As we enter the final year of RIIO-2, it provides an opportunity to reflect on the progress that we have made over the last four years. Our ambitious plan for RIIO-2 has seen us transform the experiences of our customers, communities and colleagues; delivering on our investment plans and radically improving customer service. I'm incredibly proud that we are delivering against our plan and have established ourselves amongst the frontier performers in the sector on both cost and output delivery. As I look forward to RIIO-3, we are in a great position to build on and leverage the strong performance we have delivered in RIIO-2, but we will not stand still and will continue to push the boundaries for the sector.

We transport around 35% of the nation's energy needs and it is widely recognised that the gas network will play a vital role for customers now and for several decades to come. It is therefore essential that we continue to target investment in our network to deliver a safe, reliable and resilient service for the 11 million homes, businesses and communities that rely on us every day. To support this, we have replaced 1,576km of iron pipes with plastic ones this year in line with the HSE's Iron Mains Replacement Programme, and we are well on track to complete our five-year RIIO-2 investment workload. Our RIIO-3 plan proposes to continue this critical investment in our network to ensure its safety and resilience as a key part of the energy transition.

With the continued need for the gas network, we believe that it is vital that we tackle methane emissions from it to play our part in tackling climate change. During RIIO-2, and into RIIO-3, reducing methane emissions is the greatest environmental contribution that the gas distribution networks can make. We have continued to make great progress in addressing our methane emissions, reducing our leakage emissions by 3.7% this year, and 13.2% across the whole period to date. Our relentless focus in tackling climate change means that we are out-performing our RIIO-2 targets and continue to have the lowest leakage emissions per customer across all of the gas distribution network companies in Great Britain.

To build on this achievement, we are also leading the sector and working with the other networks to develop a transformational blueprint for integrating the rollout of leakage detection technologies (such as vehicle mounted sensors) and a digital platform for leakage analytics. The output of this work will support the industry in moving from a modelled to an observed measurement of leakage enabling proactive and targeted intervention to optimise the delivery of emissions reductions, improve safety and reduce customer outages. It will see the industry move from a reactive approach to managing escapes, repairs, and replacement, to a data driven proactive one, improving customer outcomes and driving efficiency.

We continue to focus on connecting and introducing low and no carbon gases to our network to aid with the Government's net zero objective. This includes us looking to facilitate hydrogen blending, biomethane connections and hybrid heating systems. So far, we have connected 47 biomethane production sites and are working with prospective biomethane producers to further increase connections. We are also exploring the use of hydrogen in our network and aiding the HSE in considering the Safety Case to allow this to become a fuel of the future.

I'm delighted to report that this year we have achieved our best ever customer satisfaction scores, demonstrating my commitment to transforming our business into one that truly puts customers at the heart of what we do. We believe that Ofgem will confirm that at an aggregate level three of our networks are in the top four across the eight Gas Distribution Networks (GDNs), which is a fantastic achievement. At a service-specific level we expect Ofgem will confirm that our networks make up four of the top five on the connections survey, three of the top four on the planned works survey, and three of the top five on the unplanned works survey. These results are a source of great pride for me personally, as since joining Cadent I have been determined that we demonstrate a laser focus on identifying and delivering the opportunities to improve our customers' experiences in everything that we do. This focus has allowed us to transition from lagging behind other networks to now positioning ourselves amongst the leading performers in the sector.

I am also extremely pleased to see us open our 350th Centre for Warmth – our award-winning programme where we work in areas of high deprivation to provide support, such as energy efficiency and income maximisation advice, to those who

need it. This is a major milestone and is testament to the dedication and commitment by our teams who tirelessly work across our communities to support those living in vulnerable situations. The programme allows us to work with expert partners in offering a variety of support services to vulnerable individuals and families, particularly those facing financial hardship and fuel poverty. These centres act as community hubs offering practical advice, resources, and a welcoming space for those struggling with the cost of living. Our partnerships provide funding, resources, education and training, creating a connection between charities to expand, build and compliment the services they offer to vulnerable households, offering trusted advice and critical support for many.

Our Services Beyond the Meter programme is now fully embedded across the organisation. It helps to ensure that none of our customers become vulnerable as a result of being temporarily cut off from their gas supply while we make their home and appliances safe. It's great to see other GDNs adopting this initiative and providing these essential services to customers who need it most, at a time when they need it most. In RIIO-3, we are seeking to build on our activities that support vulnerable customers by leveraging our unique experience to deliver more benefit for less funding.

As I reflect on this positive year of performance it is important to recognise that none of this would have been possible without our greatest asset – our people, who I wish to thank for all their continued commitment and hard work. I take immense pride in making Cadent a fair and inclusive place to work where all our people feel they belong and can be their authentic self, and I firmly believe that this positive people culture will ensure that we continue to provide great outcomes for customers and the communities we serve over the remainder of RIIO-2 and into RIIO-3.

Our strong performance in RIIO-2 has been underpinned by a focus on and drive to deliver affordability, efficiency and value for money. However, whilst we are proud of the strong performance on our customer commitments and delivery of the stretching efficiencies we committed to in our RIIO-2 business plan, our costs are out-turning higher than our allowances and consequently our shareholders are currently forecast to make a return on their investment that is lower than the allowed rate of return for the RIIO-2 period. This is despite the fact that our business plan set the efficiency benchmark for the RIIO-2 period and has done so again for RIIO-3, according to Ofgem's draft determinations. This challenging financial performance is being driven by a combination of insufficient allowances being provided upfront through the RIIO-2 business plan assessment process, and the in-period adjustment mechanisms in RIIO-2 not providing allowances that cover a number of uncontrollable costs we have incurred and continue to face. This is particularly the case in the Greater London area, where material regional factors were not recognised in the upfront allowances, and uncertainty mechanism allowances are not currently reflecting unavoidable additional costs we have incurred, particularly relating to Streetworks requirements and Multiple Occupancy Buildings customers.

We are committed to continuing to work with Ofgem to ensure that there are cost reflective adjustments within the RIIO-2 period to account for these uncontrollable cost pressures, as well as to ensure that the cost assessment process and the design of uncertainty mechanisms for RIIO-3 enable the recovery of the efficient and justified costs needed to operate, maintain and renew the world class gas network infrastructure that continues to be relied upon by so many families and businesses in this country.

Steve Fraser
Chief Executive Officer

Chair statement

At the outset, I would like to express the Board's appreciation for the effort and commitment demonstrated by everyone at Cadent in all that they have delivered for our customers and wider communities during the course of this year. Cadent continues to deliver strong performance and I am proud to see the leading role the company is taking across the industry in delivering excellent customer service and supporting those who need it most and its role in supporting decarbonisation and the energy transition.

Reflecting on the ongoing focus on operational performance, customer satisfaction scores have continued to increase, with three of the four networks expected to sit in the top four places in Ofgem's comparative league tables. I would like to commend the Executive and leadership teams for the tremendous work they have done to continue to improve Cadent's performance. Teams across Cadent continue to drive remarkable progress in meeting our operational challenges and improving our overall performance.

Cadent has undertaken pioneering work throughout RIIO-2 in supporting the most vulnerable in society. This is an area that my fellow Board members and I are very proud of, especially recognising the continued financial challenges households are facing right across the country, as the cost of essential goods and services, including energy, continue to rise.

Our Cadent Foundation focuses its efforts on tackling fuel poverty and works alongside the company's wider social purpose programme to provide a range of help and support, ranging from professional energy and income management consultations to fully funded, in-home energy efficiency improvements.

We remain a leading voice on the importance of having low carbon gases in the future energy mix, such as biomethane and hydrogen, to achieve the Government's net zero ambition. We continue to make progress with our Hynet project to bring hydrogen to the important industrial markets of the North West. Additionally, we are engaging closely with the UK Government and the newly established National Energy System Operator (NESO), to support them in developing future energy policy. We continue to strongly support the Government's net zero plans and whilst we are expecting several key policy decisions in 2025/26, in the meantime our shareholders continue to invest in hydrogen related projects.

Over the past financial year, we have devoted considerable time to the development of the RIIO-3 business plan, which was successfully submitted to Ofgem in December 2024. The ambitious plan builds on the firm foundations of significantly improved customer service levels and frontier level cost efficiency, while seeking to continue pushing the boundaries for the sector. It makes a clear statement on the need for on-going investment in the existing infrastructure, to enable the gas network to continue to play a critical role in delivering net zero. Gas is a core component of the UK energy mix, remaining key for both domestic heating and industrial power and therefore to ensure energy resilience it must be fully considered in Great Britain's future energy scenario planning.

As we enter the final year of the current regulatory price control period, there are three key areas of focus for Cadent's Management and the Board. Firstly, it is essential that operational performance remains at the high levels the company has now attained, we maintain excellent customer service standards and we continue to deliver outstanding support for those living in the most vulnerable situations. Secondly, it is essential that we attain the right outcome through the RIIO-3 business planning process; one that recognises the need for the gas network in the medium to long term and secures investment to allow us to maintain the world class assets that our customers have invested in.
Third, and finally, to continue to lead the sector, demonstrating the case for low-carbon gas as a safe and core component of the UK's long term energy system, as the UK transitions towards net zero.

Sir Adrian Montague CBE
Chair

2. Performance summary

Output performance summary 2024/25

We have met all our annual output targets and are on track to meet our period targets.

Outcome	Output	EN	LN	NW	WM
Delivering a resilient network to keep the energy flowing safely & reliably	Emergency call handling	●	●	●	●
	Emergency response – Uncontrolled	●	●	●	●
	Emergency response – Controlled	●	●	●	●
	Tier 1 mains	●	●	●	●
	Tier 1 services	●	●	●	●
	NARM	●	●	●	●
	London Medium Pressure	N/A	●	N/A	N/A
	Capital Projects	●	●	●	●
	High rise building plans	●	●	●	●
Providing a quality experience for all our customers & stakeholders	GSOP	●	●	●	●
	Unplanned supply interruptions CSAT	●	●	●	●
	Planned supply interruptions CSAT	●	●	●	●
	Connections CSAT	●	●	●	●
	Complaints handling	●	●	●	●
	Unplanned interruptions – MOBs	●	●	●	●
	Unplanned interruptions – non-MOBs	●	●	●	●
	Collaborative streetworks	●	●	N/A	N/A
	Consumer vulnerability minimum standards	●	●	●	●
	Consumer vulnerability reputational incentive	●	●	●	●
Tackling climate change & improving the environment	Shrinkage reputational incentive	●	●	●	●
	Shrinkage financial incentive	●	●	●	●
	Commercial EV Fleet	●	●	●	●

●	Achieved annual output or on target to meet period output
●	At risk of failing five-year period output
●	Failed to achieve annual output or will fail five-year period output

Table 2.1: Output performance summary

Financial summary

(£m, 2024/25 prices)	EN	LN	NW	WM
Regulatory Asset Value	4,424	3,222	3,110	2,332
Allowed Revenue	719.6	519.1	488.5	376.9
Return on Regulated Equity (%)	3.5	3.8	4.5	5.5

Table 2.2: 2024/25 Financial summary

Totex summary

During 2024/25, we overspent our Totex allowances by £106m as our investment programme increased further in scale, and inflationary and market pressures continued to impact on the cost base relative to allowances.

(£m, 18/19 prices)	EN	LN	NW	WM
Costs	374	303	235	177
Adjusted allowances	330	254	223	175
Variance	(44)	(48)	(12)	(2)
% Variance	(13)%	(19)%	(5)%	(1)%
Return for customers	(22)	(24)	(6)	(1)

Table 2.3: 2024/25 Totex summary

Output Delivery Incentives

In 2024/25, we achieved a reward in Customer Satisfaction (CSAT) in all our networks, a reward for Collaborative Streetworks in our North London network (LN) and for Shrinkage, a reward in North West (NW), Eastern network (EN), and West Midlands (WM), with a penalty in LN. We did not pay any penalties for Complaints and Unplanned Interruptions. (See Output Performance section for further details.)

(£m, 18/19 prices)	EN	LN	NW	WM
Customer Satisfaction	7.7	3.2	6.5	4.1
Complaints	0	0	0	0
Unplanned Interruptions	0	0	0	0
Shrinkage	0.2	(0.1)	1.9	0.3
Collaborative Streetworks	0.3	3.9	N/A	N/A

Table 2.4: Incentive performance, period to date

3. Financial performance

This year we have spent over £1bn in operating, maintaining and investing in our gas distribution networks throughout the North West, West Midlands, Eastern and North London. Over the five-year regulatory period, we forecast that we will spend over £5bn in bringing gas to 11 million homes, businesses, schools, and hospitals across our regions as well as playing a key role in keeping the lights on, through our support of peaking power plants, and facilitating green gas through our 47 biomethane connections. We have continued to focus on operational improvements and efficiencies to deliver on our regulatory commitments and to minimise the impact of our activities on customers' bills.

Our actual and planned performance is set out in a period of economic and political uncertainty. We continue to face many competing challenges, including delivering in an environment of higher costs to attract capital, affordability constraints, attracting and retaining diverse talent in a challenging labour market, security of supply concerns, and delivering decarbonisation. Despite these challenges, we are ambitious in our determination to lead on efficiency and financial performance which is expected to see a real term bill reduction by the end of the RIIO-2 price control compared to the RIIO-1 price control.

Return on Regulatory Equity (RORE)

For RIIO-2, we are publishing the Regulatory Financial Performance Reporting ("RFPR") in September. We expect operational RORE, on average, over the five years, to be 4.2%, below the allowed return of 5.1%[1] at a Cadent level. This reflects market driven inflationary pressures, to which our actual costs are exposed, exceeding the inflationary mechanisms contained within the regulatory contract; the increased scale of our investment programme to respond to the challenging backdrop that has not been compensated for through uncertainty mechanisms; and insufficient allowances including lack of recognition of regional factors and a challenging ongoing efficiency level. This performance is delivered with sector leading customer incentive performance and at an efficient cost. When comparing our RoRE to network peers, it is important to note an inconsistent methodology applied following the CMA appeal which led to other networks receiving less stretching efficiency targets and higher allowances than Cadent.

Cadent RORE	2021/22	2022/23	2023/24	2024/25	2025/26	Average
Allowed Return	4.5%	4.6%	5.3%	5.6%	5.4%	5.1%
Totex	0.7%	(0.7)%	(1.8)%	(1.4)%	(1.6)%	(1.0)%
BP Incentive	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Financial ODIs	0.1%	0.2%	0.2%	0.2%	0.3%	0.2%
NIA Funding	(0.0)%	(0.0)%	(0.0)%	(0.0)%	(0.0)%	(0.0)%
Fines & Penalties	(0.1)%	(0.2)%	(0.1)%	(0.0)%	(0.1)%	(0.1)%
Operational RoRE	**5.2%**	**3.8%**	**3.5%**	**4.5%**	**4.0%**	**4.2%**

Table 3.1: Cadent Return on Regulated Equity (RORE) performance by year

	5-Year Operational RoRE				
	EN	LN	NW	WM	Cadent
Allowed Return	5.1%	5.1%	5.1%	5.1%	5.1%
Totex	(1.7)%	(1.3)%	(0.7)%	0.4%	(1.0)%
BP Incentive	0.0%	(0.0)%	(0.0)%	(0.0)%	0.0%
Financial ODIs	0.2%	0.2%	0.2%	0.2%	0.2%
NIA Funding	(0.0)%	(0.0)%	(0.0)%	(0.0)%	(0.0)%
Fines & Penalties	(0.1)%	(0.1)%	(0.1)%	(0.1)%	(0.1)%
Operational RoRE	**3.5%**	**3.8%**	**4.5%**	**5.5%**	**4.2%**

Table 3.2: Five-year average RORE performance by network

[1] Operational RORE is calculated in line with 2023/24 RFPR reporting methodology.

After the Allowed Equity Return, the main driver of RORE is the Totex performance with an incentive mechanism linked to allowances. We continue to experience significant input cost pressures that are not being compensated for through allowances such as Real Price Effect adjustments, on top of stretching ongoing efficiencies. Mitigating these cost pressures through our transformation programme and rigorous control over expenditure ensures overspend is constrained; and where there is overspend, the risk to customers is mitigated via a sharing mechanism, reducing the customer bill impact.

There are very few positive Financial Output Delivery Incentives within the RIIO-2 framework, however we expect to earn incentive rewards that will contribute a 0.2% RORE over the period, largely through the delivery of improved customer satisfaction discussed in section 2.

Revenue and Customer Bills

Allowed Revenue

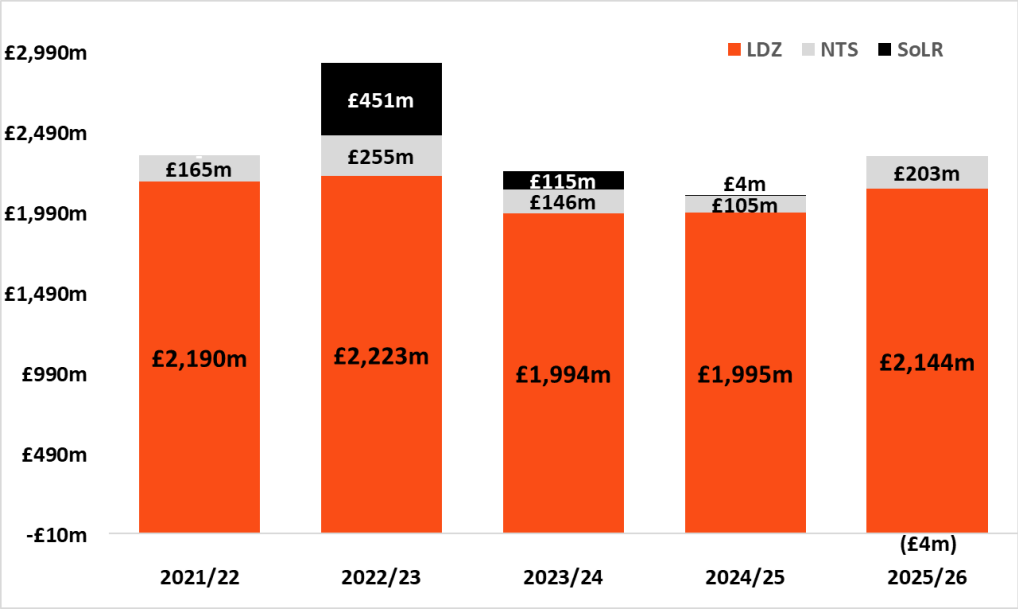


Figure 3.3: Cadent Revenues (2024/25 price base)

At the beginning of the price control, Ofgem set revenues based on the Final Determinations, which were subsequently amended upwards following a Competition and Markets Authority (CMA) appeal, which included amongst other items correction to errors in TotEx modelling in the assessment of allowances. Our Allowed Revenue is calculated each year based on our cost and workload performance and is used to set charges to shippers and ultimately our industrial and domestic customer base. The amount of revenue we collect does not always match the amounts allowed due to, by example, changes in customer demand. Any under or over recovery is corrected for in future years. Our revenues are made up of three main charging building blocks. Revenues in relation to the provision of the gas network services are known as Local Distribution Zones (LDZ). We also collect revenue to pay for the National Transmission System (NTS) for Exit Capacity charges (ECN), and the Supplier of Last Resort (SOLR) payments. The latter two are pass through costs to the gas networks as we have limited opportunity to reduce them.

Network	2021/22	2022/23	2023/24	2024/25	2025/26
Eastern	805	1,006	782	720	798
London	562	690	504	519	566
North West	569	709	567	488	567
West Midlands	418	523	402	377	413
Cadent	2,355	2,929	2,255	2,104	2,343

Table 3.4: Cadent Revenues by network (2024/25 price base)

Our Allowed Revenue in the year to March 2025 was £2,104m which reflects lower NTS and SOLR revenues than the previous year. Allowed revenue will revert back to normalised levels in 2025/26.

Customer Bill Impact

The amount each customer pays through their bill is driven by consumption, the Allowed Revenue for the year, changes in the number of customers, and the split of revenues between domestic versus industrial and commercial users. A significant part of the demand on our network comes from the c. 40,000 industrial customers including 188 power stations. If the number of customers increases, then the amount each customer would pay is less. The chart below demonstrates the illustrative cost and services delivered to a typical domestic consumer in the year 2024/25.

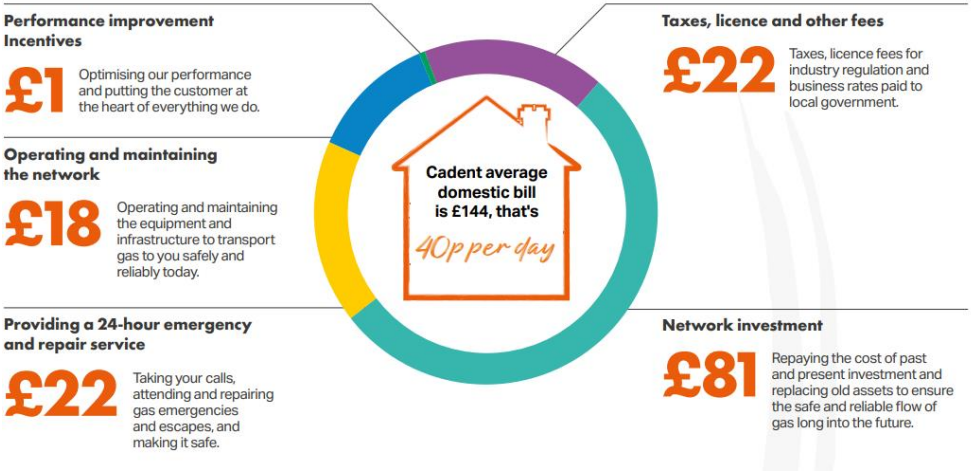


Figure 3.5: Average customer bill (24/25 price base)

Compared to RIIO-1, charges in relation to LDZ services were £175 per customer on average (adjusting for inflation), the average cost in 2024/25 has reduced to £144 per domestic customer.

4. Performance against our allowances

Totex performance

£m (18/19 prices)	2022	2023	2024	2025	2026	Totex	Allowance	
Opex	383	412	421	443	474	**2,133**	1,989	(7%)
Capex	158	190	216	174	209	**947**	834	(14%)
Repex	440	467	495	471	443	**2,316**	2,189	(6%)
Totex	**981**	**1,069**	**1,132**	**1,088**	**1,126**	**5,396**	**5,012**	**(8%)**
Allowances	1,034	1,012	989	982	995	5,012		
Variance	**53**	**(57)**	**(143)**	**(106)**	**(131)**	**(384)**		
Cumulative	**53**	**(4)**	**(147)**	**(253)**	**(384)**	**(384)**		
% variance	5%	(0%)	(5%)	(6%)	(8%)	(8%)		
Eastern	333	373	387	374	408	**1,875**	1,651	(14%)
London	254	280	305	302	287	**1,428**	1,307	(9%)
North West	235	245	261	235	252	**1,228**	1,163	(6%)
West Midlands	159	171	179	177	179	**865**	891	3%

Table 4.1 Totex performance vs. allowance

Whilst we have delivered strong performance against our outputs, the cost of achieving this performance has been in excess of our Totex allowances by £253m for Cadent cumulatively in the first four years of the RIIO-2 regulatory period. During 2024/25, expenditure exceeded Totex allowances by £106m. This largely reflects market driven inflationary pressures, to which our actual costs are exposed, exceeding the inflationary mechanisms contained within the regulatory contract. It is also driven by unfunded investment in our asset base that is essential to meet our safety and compliance standards but was not allowed in our RIIO-2 revenue allowances.

Our significant focus on driving efficiencies throughout our cost base and a business wide transformation programme aimed at utilising technology and innovation to realise cost savings, has resulted in slightly lower than predicted Totex costs of £5,396m compared to £5,415m expected last year. Despite this we are now forecasting an overspend of our RIIO-2 Totex allowances by £384m (8%). This reflects the challenging economic and regulatory environment that we have faced over the past few years in which it has proven difficult to mitigate cost and workload pressures within the regulatory allowances. Cadent set the benchmark in terms of cost efficiency for RIIO-2 with an ambitious plan and we remain on track to deliver this. However, unexpected costs have arisen which were not included in this Plan such as to manage water ingress incidents which have increased in frequency and impact, Multi-Occupancy Buildings workload, governor improvements, and higher National Insurance charges – none of which have been allowed through existing regulatory funding mechanisms.

Our cost base is driven by market pressures that do not react to reducing inflation as mechanistically as the allowances expect through the RPE inflation indices. Significant focus is needed on the reliability of these in period indexation mechanisms to respond in line with actual costs to ensure it is a 'fair bet' to deliver within the allowed expenditure.

For Controllable Opex spend, the prolonged period of higher inflation alongside broadly flat workload, rather than declining as predicted, has resulted in additional cost pressures and an overspend in 2024/25 of £61m (16%). We are now forecasting that the challenging cost environment and flat workload will continue over the remaining year, and against a backdrop of reducing allowances, we expect Opex costs to exceed allowances by 7% over the five-year period.

The 5-year RIIO-2 Capex spend of £947m is a decrease of £34m in comparison to the prior year RRP forecast. This is largely due to a reduction in Property costs, a reduction in reinforcement costs and connections due to workload, slightly offset by an increase in Governor costs. Capex allowances have reduced by £44m compared to last year's RRP across RIIO-2 due to disallowances in relation to various reopeners and volume changes in PCDs. We are now forecasting that we will overspend Capex by £113m, largely due to the delivery of additional scope that was not included in our RIIO-2 allowances along with the macro pressures on costs noted above.

We continue to make good progress on the delivery of our Price Control Deliverable ("PCD") commitments for Tier 1 mains decommissioning both in terms of length and

work mix, expecting to be within the PCD deadbands across each of our networks by the end of RIIO-GD2. We were however set very challenging Repex allowances due to the use of an 85th percentile cost benchmark, alongside a high ongoing efficiency assumption applied to our already stretching business plan. Despite costs being expected to fall in 2025/26 in line with a reduction in work delivery and efficiency improvements, overall, we are forecasting to exceed allowances by 6% across RIIO-GD2.

Controllable Opex

£m (18/19 prices)	2022	2023	2024	2025	2026	Total	Allowance	
Work Management	82	93	84	101	97	**457**	380	(20%)
Emergency	50	53	47	44	57	**251**	216	(16%)
Repairs	61	73	78	69	84	**365**	304	(20%)
Maintenance	58	56	63	63	57	**297**	478	38%
Other Direct Activities	19	22	15	21	18	**95**	94	(1%)
Work Execution	188	204	203	197	216	**1,008**	1,092	8%
Business Support	100	101	120	130	146	**597**	438	(36%)
Training & Apprentices	13	14	14	15	15	**71**	80	11%
Controllable Opex	**383**	**412**	**421**	**443**	**474**	**2,133**	**1,989**	(7%)
Allowances	415	397	390	383	404	1,989		
Variance	**32**	**(15)**	**(31)**	**(61)**	**(69)**	**(144)**		
Eastern	134	146	144	151	164	**739**	652	(13%)
London	97	102	110	113	120	**542**	520	(4%)
North West	90	98	98	105	112	**503**	458	(10%)
West Midlands	62	66	69	74	78	**349**	360	3%

Table 4.2 Controllable Opex

The in year Controllable Operating expenditure of £443m was in line with our previous RRP forecast. Higher spend on IT projects within Business Support and Work Management costs were the main drivers of the expenditure growth, in addition to costs in response to incidents caused by 3rd parties in Eastern and North-West, partially offset by lower Work Execution costs. Despite this challenging backdrop, delivering in line with the 2024/25 forecast has put us in a strong position as we enter the final year of the RIIO-2 price control. We expect further cost increases in 2025/26 driven by the cost of works in relation to Cyber Assessment Framework. For the RIIO-2 period, operating expenditure has increased from £2,107m to £2,133m due to incremental HSE Fatigue costs expected in 2025/26 and higher national insurance costs, with underlying performance remaining consistent with previous forecasts.

Work Execution and Work Management

Work Management costs in 2024/25 have increased by £17m (20%) year on year predominantly in Operations Management (£11m) across all networks. This was partially due to higher staff, materials, transport and plant and professional fees in 2024/25. Looking ahead to 2025/26, Work Management costs are expected to reduce by around 4%, driven by further efficiency measures and the forecast does not account for unforeseen third-party incidents, which in RIIO-2 to date have exert upward pressure on costs.

Work Execution costs have reduced by £6m (3%) from 2023/24 predominantly due to lower Repair and Emergency costs, driven by lower staff and contractor labour expenditure. This was partially offset by higher Streetworks, consultancy and pension administration costs and costs in relation to the incident in Chester (NW) and Muswell Hill (EN). Although costs are expected to slightly increase in 2025/26 in part due to higher employer National Insurance contributions, the overall surplus compared to allowances is expected to remain unchanged at circa £84m over the RIIO2 period.

Business Support costs increased by £10m (9%) year on year and are expected to increase by a further 12% in the final year of RIIO-2 as a result of expenditure related to the enhanced Cyber Assessment Framework. The cost increase from 2023/24 mainly relates to above inflationary cost pressures continuing to affect IT licence renewals and insurance premiums. In addition, the timing of projects related to Data Best Practice, Cyber security, transformation projects and the adoption of the Software as a Service (SAAS) accounting approach.

Costs associated with **Training and Apprentices** have remained flat year on year as we continue to invest in both existing workforce and attract new future talent into the industry. Development of people continues to be a fundamental part of our strategy.

Non-Controllable Opex

£m (18/19 prices)	2022	2023	2024	2025	2026	Total
Shrinkage	54	52	23	25	27	181
Ofgem Licence	10	10	10	12	12	54
Business Rates	195	178	139	144	142	798
Pension deficit	32	20	0	(9)	(9)	34
NTS Exit costs	151	137	106	116	163	673
Xoserve	14	11	12	10	12	59
Other*	4	349	90	3	(3)	443
Total non-controllable costs	**460**	**757**	**380**	**299**	**344**	**2,240**
Eastern	164	275	137	107	124	807
London	100	160	83	66	75	484
North West	110	183	92	73	85	543
West Midlands	86	139	68	53	61	407
Total non-controllable costs	**460**	**757**	**380**	**299**	**344**	**2,240**

**Other* = Miscellaneous pass-through inc. SOLR

Table 4.3: Non-Controllable Opex

Non-Controllable (or "pass through") costs are largely outside of the control of network operators. Costs are charged to end customers as noted above and included in customer bills. The main variability recently has been in relation to:

- Shrinkage costs which are linked to global gas prices and are now forecast to remain below the historic high noted over the first two-years of RIIO-GD2;
- Business rates have reduced in 2023/24 following a reassessment by HMRC of the rateable values. This has been followed by an increase in the multiplier for 2024/25 increasing business rates to £144m.
- NTS exit costs have increased, reflecting the latest prices as published by National Gas Transmission; and
- Other pass-through costs relate largely to socialising the Supplier of Last Resort costs which have not been and are not expected to be significant post 2023/24.

Capex Performance

£m (18/19 prices)	2022	2023	2024	2025	2026	Total	Allowance	
LTS, Storage & Entry	27	31	44	57	46	**205**	200	(3%)
Connections	33	29	23	18	20	**123**	87	(41%)
Reinforcement (<7 barg)	15	12	23	20	15	**85**	85	-
Governors	12	24	29	15	16	**96**	17	(465%)
Other Capex	71	94	97	64	112	**438**	445	2%
Total Capex costs	**158**	**190**	**216**	**174**	**209**	**947**	**834**	**(14%)**
Allowances	168	172	170	171	153	834		
Variance	**10**	**(18)**	**(46)**	**(3)**	**(56)**	**(113)**		
Eastern	70	72	85	73	95	**395**	326	(21%)
London	27	37	35	36	41	**176**	159	(11%)
North West	40	49	62	35	44	**230**	204	(13%)
West Midlands	21	32	34	30	29	**146**	145	(1%)

Table 4.4: Capex performance

Our Capex investment totalled £174m in 2024/25, £3m (2%) higher than our allowances. Over the 5-year period, we forecast that our total capital investment will be £947m, which is £113m (13.5%) higher than allowances. This is largely due to the investment required in relation to governor assets to comply with HSE standards, cost pressures above allowances in relation to vehicles and streetworks, and supply chain pressure building costs for major capital programmes.

Within our capital works, we are seeing cost pressures across all activities driven by the price of materials, supply chain availability and the complexity of the work. This is offset in part by the change in classification of IT spend (Software as a Service) that is now included within Controllable Opex in accordance with Accounting Standards.

Our **Local Transmission Systems (LTS,), Storage and Entry** costs were £13m higher than the previous year linked to completion of PCDs within the year. The overall forecast for RIIO-2 costs remains aligned with previous forecast. The majority of the increase in costs this year is within our Eastern network, mainly on pressure

reduction investment at both Offtake and Pressure Reduction sites (PRS) with the (PCD) metering system upgrades at Bacton and Brisley completed during the year. Other significant programmes have progressed within Eastern also, delivering upgrades to preheat and other major components across a number of sites.

Connections expenditure reduced to £18m across all Networks, which has been reflected in our 5-year forecast. This is driven by falling demand, with a further reduction in overall volumes of 17% in comparison to the prior year.

In particular, demand for new housing connections has been impacted with a 31% fall in volumes. The changes to industry policy and reduced availability of funding for in-home first-time heating, coupled with the associated repurposing of allowances to support our continued work on Vulnerability and Carbon Monoxide Awareness, continue to reduce Fuel Poor Connections by a further 16% year on year. Existing housing connections and non-domestic connections have also reduced by 10% and 13% respectively.

These reductions have posed a significant challenge to maintaining unit rates which has been appropriately managed via control of fixed costs to maintain the unit rate year on year. Despite the fall in demand, new connections still exceed disconnections, resulting in an overall growth to the customer base.

Any change in connections workload results in an adjustment to allowances and revenues via the volume driver mechanism.

Mains reinforcement expenditure has reduced by £3m year on year, with costs across the networks varying. Reinforcement is applied based on case specific requirements. We prioritise reinforcement where it is economical to, allowing improved whole life cost of project delivery whilst ensuring that we maintain resilience on the network. The North-West has reduced annual spend by £5m through analysis of network pressure data to focus on known poor pressure sections of the network, coupled with a drop in work volume from 14km to 5km.

In the Eastern Network, costs rose by £3m to £11m due to increased General Reinforcement and we remain on track relative to the £42m allowance. Our London network saw higher volumes and efficiencies from aligning work with mains replacement and remains broadly aligned to allowances overall. In contrast, the West Midlands optimised delivery with a £6.7m underspend relative to allowances. We continue to assess year on year as part of our mains replacement delivery programme on where it is most economical to deploy to keep costs down for customers.

In agreement with the HSE, Cadent has undertaken a three-year programme of improvements to our **Governor** assets, ensuring the entire population of over 9,000 sites is compliant with DSEAR legislation whilst also remediating other issues identified including corrosion, security and HASAWA (Health & Safety at Work Act) signage compliance.

This work was effectively completed in December 2023, so as forecast, the in year spend is significantly reduced from the prior year, with 131 housing replacements being completed in year in comparison to 562 in 2023/24. The overall Governor spend for RIIO-2 is expected to be £96m, which is broadly in line with our forecast from last year.

The programme has also impacted **Other Network Capex** which included £32m of investment in electrical and instrumentation across all pressure reduction installations over and above our allowances.

Overall for the RIIO-2 period, **Other Capex** is comprised of an underspend versus allowances on non-network capex of £119m, offset by an overspend of £112m on Other Network Capex. This is largely due to the additional spend mentioned above on the works associated with pressure reduction sites, coupled with additional spend of £22m on Non-Routine Maintenance programme work (“NRMP”) classified as capex but included as opex within the business plan. This has been offset by other non-network capex mentioned below. Within Other Capex is the investment requirement to improve our compliance with the enhanced cyber framework which drives a large increase over 2025/26.

As forecast, Capex expenditure on **Vehicles** (Other Capex) vs allowances is lower than originally forecast after a change in approach to procuring vehicles where we have leased vehicles rather than purchasing them. This means that this spend is therefore included within Opex rather than Capex. Our Fleet Transformation Programme has meant that almost 900 vans have been replaced, reducing the

average age of the operational fleet to 3 years, compared to 5.5 years in 2019. In addition, we now have 509 electric commercial vehicles, contributing to our net zero commitments.

Investment in **IT and Telecoms** (Other Capex) increased by £1.6m mainly the result of mobilising reopener funded cyber resilience projects. A substantial increase is forecast for the final year of the Price Control as these projects progress. We continue to see lower than expected spend within IT capex as a result of projects delivered in 2024/25 being accounted for as Software as a Service (SaaS) and thus included in Controllable Opex, which is reflected in our revised forecast of Other Capex for RIIO-2.

Whilst we continue to invest in our **Property** portfolio (Other Capex) to ensure it remains safe, compliant and fit for purpose, during 2024/25 we have seen a slight dip in property spend due to the timing of projects completing. Property costs are expected to rise again in year 2025/26, with investment underway to further rationalise the number of operational sites in the NW network through the creation of a new depot in Huyton, Liverpool.

Repex performance

Repex Costs

£m (18/19 prices)	2022	2023	2024	2025	2026	Total	Allowance	
Tier 1: Mains & Services	338	353	356	352	313	**1,712**	1,593	(7%)
Tier 2: Mains & Services	5	6	7	7	15	**40**	28	(43%)
Tier 3: Mains & Services	9	11	17	10	7	**54**	40	(35%)
Steel Mains & Services	16	16	19	18	14	**83**	77	(8%)
Other Mains	9	2	2	2	- 5	**10**	55	82%
Diversions	5	4	12	10	14	**45**	57	21%
Other Services	41	51	53	49	46	**240**	215	(12%)
Tier 1 Stubs	3	1	-	-	13	**17**	21	19%
Risers	13	19	24	22	26	**104**	101	(3%)
Robotic Intervention	1	4	5	1	-	**11**	2	(450%)
Total Repex costs	**440**	**467**	**495**	**471**	**443**	**2,316**	**2,189**	**(6%)**
Allowances	451	443	428	429	438	2,189		
Variance	**11**	**(24)**	**(67)**	**(42)**	**(5)**	**(127)**		
Eastern	129	154	158	150	148	**739**	673	(10%)
London	130	141	161	153	126	**711**	629	(13%)
North West	105	98	100	95	97	**495**	500	1%
West Midlands	76	74	76	73	72	**371**	387	4%

Table 4.5 Repex costs

Our investment in Repex totalled £471m in 2024/25, £42m higher than allowances but £24m lower than the previous year. We have driven efficiencies to reduce unit rates for all work types across all Networks, delivering a comparable workload volume to 2023/24.

Overall, there are a number of factors that contribute towards our Repex spend position compared to allowances that can be summarised as follows:

- The use of the 85th percentile in cost assessment and the inclusion of a very stretching efficiency assumption applied to our already stretching Business Plan.

- Input cost pressures beyond those compensated for through allowances, including the competitive market for resources driving up labour rates, particularly impacting our London and Eastern networks which show expenditure being greater than allowances, and higher costs of raw materials and ancillary costs related to working in the road e.g. traffic management and reinstatement.

Our London network has unique costs and challenges due to the nature of the operating environment. The dense nature of population and the resulting congested utility ecosystem limits the use of least cost techniques (with insertions of Polyethylene pipe often not possible) and has increased delivery times as we need to navigate complex underground networks. The type of housing stock, particularly the presence of converted flats and listed and/or protected buildings means greater levels of enabling and delivery work are needed relative to when replacing similar lengths in the presence of other building types. Alongside these factors, intensive urban road and foot traffic drive additional costs due to the need to break up harder wearing road and pathway materials and comply with streetworks restrictions. Whilst some of these factors were reflected in the allowances for our London network, we note as part of the RIIO-ED2 final determinations, further regional factors were awarded to network operators and in our view, this illustrates that the full scale of factors that impact our efficiency in London is not currently being accounted for.

The largest spend relates to decommissioning and replacing **Tier 1 iron mains** and undertaking interventions on the associated services. This accounted for 74% of the total Repex spend in 2024/25 and 74% of our forecast spend over the price control period.

For the first three years of RIIO-GD2, we delivered a higher proportion of the smaller diameter band workload, however, in 2024/25, we have significantly increased our more complex 8" diameter work (+35%) whilst maintaining a similar overall volume run rate compared to 2023/24. Despite this, we have delivered savings through the successful demobilisation of our Contract Management Office ("CMO") in our London network as well as implementing efficiencies following a review of CMO end-to-end processes.

There is 1,414km of Tier 1 mains left to be decommissioned by the end of the RIIO-2 period against the Tier 1 mains PCD baseline, and we expect to be within the PCD deadbands across each of our networks by the end of the RIIO-GD2 period.

Diversions spend decreased slightly in 2024/25. As diversionary work is typically customer driven, costs and workload therefore tend to fluctuate year on year. Customer contributions are also impacted by the timing of final completion.

Spend on **Other services** has reduced by £4m in comparison to 2023/24. All networks have cumulatively delivered less volume due to reactive service failures not materialising at the anticipated rate outlined within the Baseline Network Risk Output (BNRO) within the Network Asset Risk Metric (NARM). Over the remainder of the regulatory period, we are forecasting that we will deliver less volume in services not associated with mains replacement.

Repex workload

Km	2022	2023	2024	2025	2026	Total
Tier 1	1,537	1,596	1,572	1,576	1,498	**7,779**
Tier 2A	1	2	3	2	12	**20**
Tier 2B	11	19	19	19	13	**81**
Tier 3	6	7	11	10	3	**37**
Iron Mains	1,555	1,625	1,604	1,607	1,526	**7,917**
Steel	54	62	59	69	62	**306**
Other	37	61	61	42	14	**215**
Diversions	36	38	29	37	71	**212**
Total	**1,682**	**1,787**	**1,754**	**1,755**	**1,673**	**8,650**
Eastern	563	638	652	621	645	**3,118**
London	329	354	340	391	330	**1,744**
North West	471	458	432	423	397	**2,181**
West Midlands	319	337	330	320	301	**1,607**

Table 4.6: Repex workload[2]

[2] Tier 1 workload in table includes Tier 1 Mains decommissioned PCD plus Tier 1 Stubs

Repex spend is directly correlated to the amount of length we have or are forecast to decommission. In 2024/25 we have decommissioned a total of 1,755km of metallic mains across all tiers and materials. Within Tier 1 Mains, we have decommissioned 4km more than 2023/24, however the mix of workload has changed towards the larger diameter pipes, with 115km less 4" and 5" mains decommissioned, but 83km more 8" mains decommissioned.

The largest spend relates to decommissioning and replacing Tier 1 iron mains and undertaking interventions on the associated services. During RIIO-GD2 this work is captured within a PCD and the base workload within our **Tier 1 Mains** PCD is just over 7,692km across RIIO-GD2, or 1,538km per annum. We delivered 1,576km in 2024/25, bringing our total to date for RIIO-GD2 to 6,278km which is 2% more length than the baseline assumes. This positive delivery against the baseline is reflective of the hard work in implementing our new Repex delivery model. In terms of work mix, our delivery plans will see us being within deadbands estimated at -2% to +3% against the PCD target in all networks.

Tier 2A Mains can be difficult to predict and as such is subject to a volume driver revenue adjustment mechanism. Our delivery in the four years of RIIO-2 has been lower than originally forecast .

The **London Medium Pressure** ('LMP') programme of work, which started in RIIO-GD1, is part of a long-term programme to upgrade and replace strategic sections of the Central LMP network. For RIIO-GD2 we proposed to replace 9.9km of mains and replace four governors across the area. In 2024/25, we decommissioned a further 2.8km and commissioned 2.3km of LMP mains. Overall, we have replaced 12.4km of LMP mains over the first four years of RIIO-GD2, which includes both RIIO-1 carry over (2.2km) and RIIO-2 workload (10.2km). Despite logistical challenges of working in Central London, we are confident we are going to fulfil the PCD requirements in full.

We expect to deliver significantly more **Steel Mains** during the five-year period than included in the RIIO-2 Final Determination. This increase relates to obligations we have to replace associated steel mains that are directly connected to our Iron Mains. In the first four years we have seen higher volumes of Steel Mains per km of Iron Mains than historically observed, and we expect this to continue into the final year of RIIO-2. Steel Mains form part of the Network Asset Risk Metric (NARM) mechanism where we are funded to remove risk across a number of asset categories. As such, this additional Steel Mains delivery will contribute towards any reactive workload forecast within the NARM baseline that does not materialise and over-delivering against our monetised risk targets.

5. Output performance

Performance highlights

We set out in our RIIO-GD2 business plan the outcomes our customers and stakeholders want us to deliver. In the section below, we provide the key performance highlights against each of these outcomes and explain how we have performed against the relevant regulatory outputs or commitments that sit under these.

Delivering a resilient network to keep the energy flowing safely and reliably

92.3% of your calls answered in 30 seconds

(Minimum standard: 90%)

98.9% of gas emergencies attended within standard

(Minimum standard: 97%)

99.9% Network reliability

(23/24: 99.9%)

Tackling climate change and improving the environment

3.7% Reduction in Shrinkage Emissions

(23/24: 3.4%)

51% Commercial FCO fleet are zero emission

(23/24: 49%)

8.6% Reduction in Business Carbon Footprint *Scope 1 & 2 (exc. Shrinkage)*

(23/24: 0.2% increase)

Providing a quality experience to all our customers, stakeholders & communities

9.4/10 Average Customer Satisfaction score

(23/24: 9.3/10)

£31.9m of VCMA funds invested to support vulnerability

(23/24: £10.8m)

90% Complaints resolved within one working day

(23/24: 88.9%)

Trusted to act for our communities

£4.2m Invested by shareholders in the Cadent Foundation

(23/24: £3.3m)

1,276 days in employee volunteering

(23/24: 1.259)

Delivering a resilient network to keep the energy flowing safely and reliably

Output commitments					Target/commitment			
Output name	**Common/ bespoke**	**Output type**	**Annual/ Period target**	**Measure/unit**	**EN**	**LN**	**NW**	**WM**
Emergency call handling	Common	Licence Obligation	Annual	% answered in 30 seconds	90%	90%	90%	90%
Uncontrolled escape response	Common	Licence Obligation	Annual	% attended within 1 hour	97%	97%	97%	97%
Controlled escape response	Common	Licence Obligation	Annual	% attended within 2 hours	97%	97%	97%	97%
Tier 1 mains	Common	Price Control Deliverable	Period	km	2,774	1,531	1,918	1,469
Tier 1 services	Common	Price Control Deliverable	Period	No. of services	241,930	185,295	195,011	157,646
London Medium Pressure	Bespoke	Price Control Deliverable	Period	km		9.89		
Capital Projects	Common	Price Control Deliverable	Period	No. of projects	14	2	7	7
Network Asset Risk Metric (NARM)	Common	Price Control Deliverable	Period	Monetised risk (R£m)	5.2	7.6	5.6	3.1
High Rise Building Plans	Bespoke	Reputational Output Delivery Incentive	Period	No. of plans	207	2,590	86	276
Cyber resilience	Common	Price Control Deliverable	Period	PCD delivery	✓	✓	✓	✓
Digitalisation Strategy & Action Plan	Common	Licence Obligation	Annual	Strategy implemented	✓	✓	✓	✓
Data Best Practice	Common	Licence Obligation	Annual	Compliance	✓	✓	✓	✓

Responding to gas emergencies

Answering emergency calls

Output performance summary

Output name	Target	2024/25 Performance			
		EN	LN	NW	WM
Emergency call handling	90%	92.3%			

We operate the National Gas Emergency Service (NGES) contact centre on behalf of all gas networks across Great Britain, providing a 24/7 emergency call handling service, taking calls and providing safety advice. As part of our licence, we have an annual standard (Licence Obligation, 'LO') which requires us to answer calls to the NGES within 30 seconds, 90% of the time. In 2024/25, we received c.1.3 million telephone calls and answered 92.34% within 30 seconds.

To ensure the NGES is prepared in the event of a major incident or surplus of calls, we have continued to deliver 'Fast Track' emergency call training to over 260 additional call handlers from within the business and through a working partnership with Coventry University. We called upon support from Coventry University during the year when we received a significant volume of calls.

Last year (2023/24), we successfully implemented our 'Select Step' triage process, a tool that allows genuine gas emergencies to be prioritised on the NGES line. We have set up the 'Select Step' process to be implemented only when pre-defined operational risk levels are exceeded (as agreed with Ofgem and the HSE). We used this on 11th and 12th January 2025 when trigger levels were reached. When we assessed the call types after we implemented this process, we found that 60% of calls were not related to genuine gas emergencies.

To promote awareness of what should be considered a gas emergency, we continue to run public campaigns such as our 'Make the Right Call' campaign centred around educating and encouraging customers to consider the most appropriate service for their issue, e.g. calling Suppliers for gas meter issues and not the NGES.

Alongside raising customer awareness, we have played a key role in supporting Ofgem in introducing a gas supplier licence obligation that requires the Suppliers to provide better out of hours availability for metering issues. We are pleased with Ofgem's decision but will continue to work with the Regulator to ensure that other non-gas emergency call traffic such as billing and appliance cover support is also available out of hours from Suppliers.

Our emergency call handlers have continued to use the 'Locate Me' app, which we introduced last year, to aid in locating gas emergencies that are not linked to a fixed address. Through this initiative, we decreased call times and increased the location accuracy to ensure engineers attended incidents more promptly, which helped to prioritise safety throughout the customer journey. This year we have been developing a new telephony and Customer Relationship Management system and a video call functionality for customers who may need greater support and guidance in locating and using their Emergency Control Valve at their gas meter during an emergency.

Attending emergency gas escapes

Output performance summary

Output name	Target	2024/25 Performance			
		EN	LN	NW	WM
Uncontrolled escapes	97%	98.9%	98.7%	98.9%	98.7%
Controlled escapes	97%	99.2%	98.5%	98.8%	99.0%

In our network areas, we provide a gas emergency service free at the point of use, which keeps people safe and warm in their homes and businesses. We respond to internal and external gas escapes and potential cases of carbon monoxide poisoning from appliances. Within our licence, we have an annual standard (Licence Obligation, 'LO') which requires us to attend gas escapes within one-hour where they are uncontrolled and two hours (97% of the time) where they are controlled (where the person reporting the escape or other emergency advises that after carrying out the advised actions that the escape or other emergency has ceased).

In 2024/25, we attended over 305,000 controlled and uncontrolled gas escapes, a slight reduction of 1.2% in instances compared to 2023/24. Our performance against both the uncontrolled (P1) and controlled (P2) escape standards in 2024/25 was in line with our historic trends, with all our networks achieving above 98.5%. This year our London network delivered its best performance across both controlled and uncontrolled gas escapes compared to the whole of RIIO-GD2 to date.

%	One hour response to uncontrolled emergencies	Two hour response to controlled emergencies
EN	98.9%	99.2%
LN	98.7%	98.5%
NW	98.9%	98.8%
WM	98.7%	99.0%

Table 5.1: 24/25 Emergency Standards of Service ('ESOS') performance

Although the licence obligation is measured against an annual standard, for RIIO-3 networks will be required to report their monthly breakdown (in their annual reporting pack). In readiness for this, we have provided a view of this in the RRP. Despite all Cadent networks exceeding the 97% annual standard across both controlled and uncontrolled gas escapes, we experienced variances in job volumes that led to some discrete months where we were slightly below 97%. In November, controlled escapes in the London network were at 95.8%, and in January, the North West were at 96.1% for uncontrolled and 93.9% for controlled escapes.

Whilst annual workload was slightly lower than the previous year, there were time periods during the year where workload was higher than forecast and this led to these isolated months dipping below 97% in London and North West. The largest impact was in North West where there was a significant spike in workload between 9-15 January 2025. When compared to the same period across the previous four years*, we experienced a workload increase of 51% for uncontrolled and 58% for controlled escapes. Indeed, >35% of North West's annual ESOS failures for 2024/25 were experienced across these six days in January 2025.

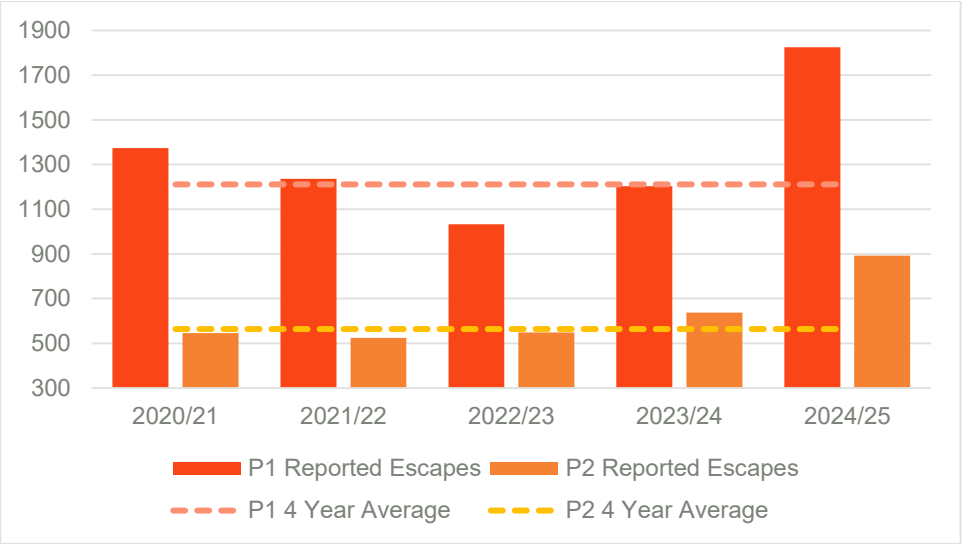


Figure 5.2: North West ESOS Workload - 9th - 15th January 2025

Mains replacement

Tier 1 Mains & Services

Output performance summary

Output name	Period target	End of period forecast			
		EN	LN	NW	WM
Tier 1 PCD programme	100%	100%	100%	100%	100%

To ensure the continued safety of our customers and the resilience of our network, we are required to, as part of the HSE's Iron Mains Replacement Programme, replace all at risk Tier 1 Mains by 2032. For RIIO-GD2, a Price Control Deliverable ('PCD') was set for this workload to track delivery and ensure allowances match the workload delivered.

The Tier 1 Mains PCD includes a baseline target for us to decommission 7,693km of Tier 1 iron mains by the end of RIIO-GD2 across all our networks, and so far, we have replaced 6,278km against this target.

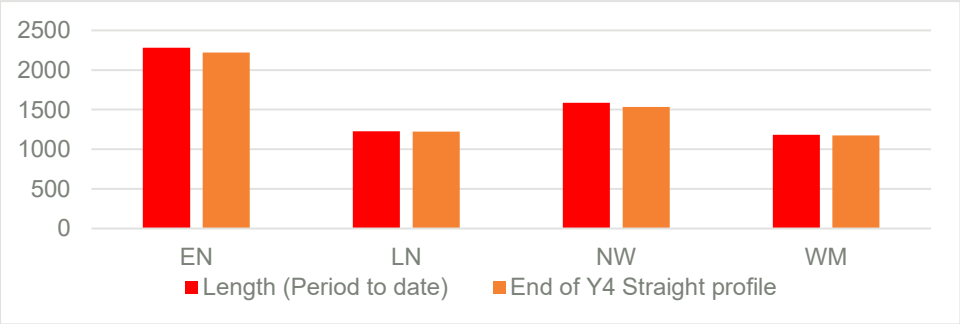


Figure 5.3: Tier 1 Mains PCD – Cumulative length decommissioned vs. straight profile

The Tier 1 Mains PCD sets baseline volumes against four diameter bands each assigned an allowed unit cost which when multiplied together makes up our total PCD allowance per network. For the first three years of RIIO-GD2, we delivered a higher proportion of the smaller diameter band workload, however in year four, through our new operating model and in order to deliver against the PCD, we have significantly increased our more complex 8" diameter work whilst maintaining a similar overall volume run rate compared to 2023/24.

Overall, we have decommissioned 2% more Tier 1 Mains workload compared to a linear profile. When adjusted for the diameter mix, at the overall Cadent level we are on track at 80% delivery. By network, we are ahead in EN and NW and slightly behind for WM (1%) and LN (3%). However, following the transition to using Cadent direct management (away from our Contract Management Organisation), LN has been able to significantly increase its workload delivered this year across all diameter bands bringing the network back in line with the linear target. LN is forecasting a similar level of delivery in Year 5 so we are confident that all networks will be within the PCD deadband (+3%/-2%) by the end of the period.

% vs Tier 1 mains baseline	EN	LN	NW	WM
<=3"	116%	202%	103%	104%
4"-5"	85%	88%	87%	84%
6"-7"	80%	78%	77%	83%
8"	75%	61%	75%	69%
Total	**81%**	**77%**	**81%**	**79%**
	80%			

Table 5.4: Tier 1 Mains PCD – % delivered against baseline by diameter

When we deliver Tier 1 mains replacement activity, we also intervene (undertake a 'relay' or a 'test and transfer') on the metallic services associated with these mains. For RIIO-GD2, PCD was set for this consequential workload to ensure that our allowances match the interventions actually delivered.

Based on historic data, our baseline workload expectation across all networks was set at 779,882 interventions (which equates to a service density of around 100 services per km of Tier 1 Mains replaced). Whilst historic intervention data was used to generate the forecasts used in setting the Tier 1 services PCD, it is well understood that the density of services can vary significantly from scheme to scheme.

So far during the period we have experienced a lower service density compared to the expected baseline density. In total, we have undertaken 556,257 service interventions over the first four years of RIIO-2, which represents an overall Cadent delivery of 71% against our baseline expectations. This service density comparison is shown in the table below, and volumes delivered shown in the graph (figure 5.5).

	EN	LN	NW	WM	Cadent
Baseline service density	87.2	121.0	101.7	107.4	**101.4**
Experienced service density	84.2	99.4	88.3	86.4	**88.6**
% variance	-3%	-18%	-13%	-20%	**-13%**
Services delivered (% period to date)	79%	66%	72%	65%	**71%**

Table 5.5: Tier 1 Service Density Baseline vs Experienced

The Tier 1 Services PCD is subject to an upward revenue adjustment cap of 10%. However, there is no downward revenue collar, meaning that the allowances for any expected interventions that are not realised will be returned to customers. Whilst there is no downward revenue collar, there is a requirement that if outturn volumes are less than 90% of baseline expectations, then the GDN must explain the variance.

As can be seen above, our Eastern and North West networks currently fall within this downward deadband, at 1% and 8% under the baseline respectively. Our London and West Midlands networks currently fall outside of this deadband at 14% and 15% under the baseline, respectively.

As explained, we are on track to deliver our Tier 1 Mains output. Therefore, this downward variance in service interventions is just a consequence of the mains that have been delivered in this period compared to those delivered historically.

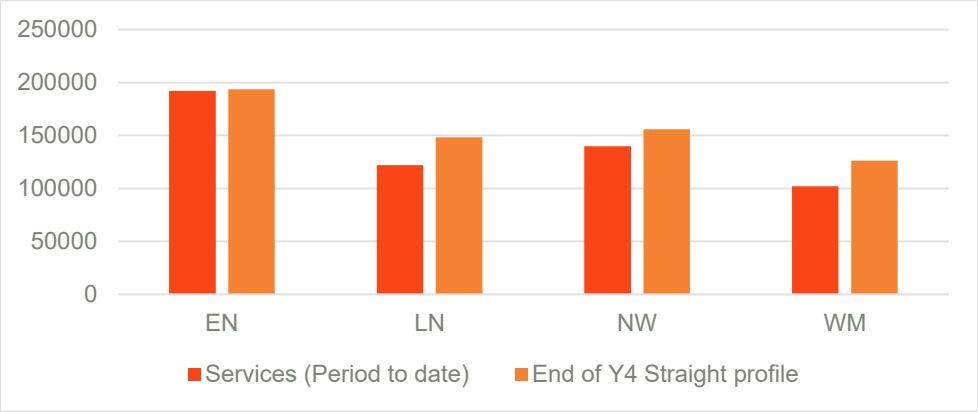


Figure 5.6: Tier 1 Services PCD – Cumulative interventions vs. straight profile

London Medium Pressure (LMP)

Output performance summary

Output name	Period target	End of period forecast - LN
LMP - Mains	9.9km	10.6km
LMP - Governors	4 governors	4 governors

The LMP programme of work, which we started in RIIO-GD1, is part of a long-term programme to upgrade and replace strategic sections of our Central London Medium Pressure network. This work needs to be undertaken primarily due to Asset Health and the risk the associated mains pose to nearby buildings and their occupants.

Our work will take place in some of the most sensitive locations within central London, and therefore it is important that we work in close consultation with stakeholders and with the least disruption to residents, workers, businesses and tourists.

For RIIO-GD2 we proposed to replace 9.9km of mains and replace four governors across the area. This was set as a bespoke Price Control Deliverable ('PCD') for Cadent which will also be continuing for RIIO-GD3.

In 2024/25, we decommissioned a further 2.8km and commissioned 2.3km of LMP mains. Overall, we have replaced 12.4km of LMP mains over the first four years of RIIO-GD2, which includes 2.19km of RIIO-1 carry over and 10.22km of RIIO-2 workload- overdelivering against the original 9.9km stated against the PCD. In the final year of RIIO-2, we expect to deliver some additional replacement and forecast to deliver 10.6km by the end of the period.

Our remaining governor intervention on Goswell Road (previously Central Street) is due for completion by August. During the price control, we encountered limited space for replacement and future impracticalities with ongoing maintenance at the original Central Street location so, to ensure resilience of the network, the governor replacement was amended to the adjoining Goswell Road. We are confident in fulfilling the PCD requirements in full by the end of the period.

Asset health investment

Capital Projects

Output performance summary

Output name	Period target	End of period forecast			
		EN	LN	NW	WM
Capital Projects	100%	93.3%*	100%	87.5%*	100%

**2 projects in EN and NW de-scoped during period as no longer required – Hence not able to achieve 100% of original target.*

Our Capital Projects are large network investments which help to ensure the safety and reliability of critical assets on our network. For RIIO-GD2, a number of these projects are governed by a Price Control Deliverable ('PCD'), an output which holds networks to account for the delivery of these specific projects. The PCD mechanism allows for the funding to be returned to customers if the output is not fully delivered.

We have three categories of work to deliver under this PCD; Capacity upgrades (>7 bar) to ensure we can meet 1-in-20 demand requirements at 13 sites, Metering systems replaced at 18 Offtake sites, and the replacement of interim PE pipes within a service tunnel at Lowestoft Harbour.

Capacity Upgrades at two sites have now been descoped from our delivery programme: Hambleton due to the customer withdrawing their request, and Eye Green as it was no longer at risk of failing to meet peak capacity demands in our network. The funding for these will be returned to customers.

We completed the Lowestoft Harbour project, replacing the interim PE pipe with a permanent 8" steel pipe in the first year of RIIO-GD2. We have also delivered a further four capacity upgrades and eight metering systems. Due to some supply chain and contractor issues, some projects have been delayed to year five; however, we are working to overcome remaining challenges and are confident we will deliver all remaining projects by the end of the period.

Network Asset Risk Metric (NARM)

Output performance summary

Output name		EN	LN	NW	WM
NARM	Monetised risk targets (R£m)	5.2	7.6	5.6	3.1
	Monetised risk end of period forecast (R£m)	5.3	7.8	5.7	3.3

The Network Asset Risk Metric (NARM) is a regulatory mechanism designed to encourage networks to continually "optimise" asset health related investment plans and provide a means of comparing the benefits delivered to customers across different companies and sectors.

There is flexibility within the mechanism which allows us to risk trade the input workload to optimise investment whilst achieving the defined period output – i.e. the reduction in monetised risk. When we articulate the benefits of investments into a comparable means of comparison we do this to enable stakeholders to more quickly understand if changes in investments offer the same/greater/lesser benefits compared to the baseline plan.

The NARM mechanism is a type of Price Control Deliverable ('PCD') which adjusts revenues based on a network's outturn reduction in monetised risk compared to the baseline level. It also contains a penalty-only financial output delivery incentive ('ODI-F') element, which penalises unjustified under-delivery.

The table below provides our current view of our period target, end-of-year position and period forecast. However, at this time this is provided on an indicative basis ahead of the fully validated and assured performance position being provided within our NARM RRP which will be submitted in October 2025.

We expect all our networks to deliver beyond the RIIO-2 NARM target (normalised) by the end of the period. Rephasing of our plan within our Eastern network has meant that our higher risk delivery interventions for Capex have moved to year 5 but we expect to deliver within the associated NARM deadband by the end of the period.

Network	RIIO-2 period normalised target (FD)	End of Year 4 cumulative monetised risk delivered (R£m)	Period forecast monetised risk (R£m)	Period forecast Percentage delivery of Target
EN	5.188	3.532	5.308	102.3%
LN	7.55	6.386	7.818	103.5%
NW	5.576	4.408	5.672	101.7%
WM	3.108	2.635	3.257	104.8%

Table 5.7: NARM monetised risk delivered vs. target

High Rise Building Plans

Output performance summary

Output name	Period target	End of period forecast			
		EN	LN	NW	WM
High rise building plans	100%	156%	101%	65%	100%

We have a large proportion of high-rise buildings (HRBs) across our networks, and it is imperative we have the tools in place to quickly and effectively intervene, restore supplies and safeguard all customers in the event of a gas supply issue.

For RIIO-2 we proposed a bespoke (i.e., Cadent-only) reputational Output Delivery Incentive ('ODI-R') to develop robust building management plans for all of our high-rise buildings to enable us to quickly and effective respond to any incidents.

After a year of strong delivery in 2024/25, we have now developed 3,131 plans across our networks, which exceeds the original target of 3,107. Our ability to deliver a larger number of plans is a result of our continued survey inspections, which have increased our understanding of our multiple occupancy building (MOB) portfolio.

In Eastern and London, we have already exceeded the original volume as survey inspections have resulted in the re-categorisation of buildings, including from medium to high rise. Whereas, over the first four years in North West we have identified 38 buildings, within the original target, that do not meet the criteria for a HRB (for example due to being medium-rise or having meter banks), eight that have been subject to the Energy Exchange Programme and one that has now been demolished. The table below shows known adjustments to the original targets and the total volume delivered at the end of year four.

	EN	LN	NW	WM	Cadent
Original period target	132	2,566	133	276	3,107
Known target adjustment	+75	+24	-47	0	+52
Revised period target	207	2,590	86	276	3,159
Delivered year 1-4	207	2,590	86	248	3,131

Table 5.8: High rise building plans delivered vs target

Cyber and IT

Cyber Resilience OT and IT

Output performance summary

Output name	Target	2024/25 Performance
Data Best Practice	Comply with guidance	Compliant
Digitalisation Strategy & Action Plan	Publish in line with Licence Obligation	Delivered

Cyber Security continues to be a priority for our business with regular engagement with all stakeholders including our Board, Ofgem and the National Cyber Security Centre (NCSC). We continue to improve our Cyber Security strategy, adding a number of controls across Access Management, Incident Management and Business Continuity

Through the RIIO-GD2 framework we currently have a number of Price Control Deliverables ('PCDs') aimed at enhancing our overall cyber resilience strategy, and that complements our requirements under the Network and Information Systems (NIS) Regulations for both Information Technology (IT) and Operational Technology (OT) respectively, with allowances granted to us for investing throughout the RIIO-2 period.

The purpose of these deliverables is to:

- Demonstrate activities implemented contribute to increased cyber resilience,
- Invest in technology to improve our cyber resilience (especially in relation to OT)
- Mitigate associated risks, including changes to level of risk and the cyber threat landscape,
- Improve our status with respect to Cyber Assessment Framework (CAF) outcomes on our network and information systems.

As cyber threats have significantly increased on a global scale over the last few years, we continue to closely monitor threats, assessing risks, and adapting our resilience plans in this area to ensure customer data and our critical systems remain safe and secure. Being part of the Critical National Infrastructure (CNI) means that technology is core to our operations, and we understand the impact system failures can have on customers and businesses. That's why we're committed to delivering a safe, secure, and reliable network for our customers and the communities we operate in, both now and for the future; and is why we have utilised both the re-opener windows in January 2023 and January 2024 to apply for additional funding to help us achieve this. Due to this work being sensitive in nature, we will continue to provide detailed progress reports to Ofgem in line with the reporting requirements set out in our licence.

Data and Digitalisation

We have Licence Obligations (LOs) to have, regularly update and publish a Digitalisation Strategy and Digitalisation Action Plan, as well as complying with a range of Data Best Practice Guidance.

We published our latest Digitalisation Strategy in December 2024, detailing how we will deliver on our activities up to the end of the RIIO-2 period and prepare for RIIO-3. Our Digitalisation Action Plan gives visibility to our stakeholders on our progress in finalising our RIIO-2 digitalisation deliveries. Actions delivered include:

- A new Open Data Portal, giving self-service access to Open Data Assets for our stakeholders. There are currently 210 Data Assets published for our external stakeholders including Individual and Business Customers, Low Carbon Connecting Parties, Government Authorities and Policy Makers, as well as Energy Industry participants and Other Utilities.
- A three-part innovation project to reduce natural gas emissions and improve safety across the network. Through this we have trialled new technologies that detect network emissions. Analysis has shown how this new data can shape operational activities, and we are in the process of complementing new insights with dedicated machine learning models to predict emissions in the places where physical detection technology is less feasible.

We chair the Gas Data & Digitalisation Collaboration Group, which has been formed by all Gas Distribution Networks and National Gas. The purpose of this group is to collaborate in efforts to make gas data more accessible and interoperable for our Stakeholders and collectively mature our approach and compliance with the Data Best Practice guidance.

Providing a quality experience for all our customers, stakeholders & communities

Output commitments					Target/commitment			
Output name	**Common/ bespoke**	**Output type**	**Annual/Period target**	**Measure/unit**	**EN**	**LN**	**NW**	**WM**
CSAT: Unplanned Supply Interruptions	Common	Financial Output Delivery Incentive	Annual	Score out of 10	9.37	9.37	9.37	9.37
CSAT: Connections	Common	Financial Output Delivery Incentive	Annual	Score out of 10	8.38	8.38	8.38	8.38
CSAT: Planned Supply Interruptions	Common	Financial Output Delivery Incentive	Annual	Score out of 10	8.51	8.51	8.51	8.51
Complaints Metric	Common	Financial Output Delivery Incentive	Annual	Weighted metric	5	5	5	5
Connections Guaranteed Standards of Performance ('GSOP'	Common	Licence Obligation	Annual	% in standard	90%	90%	90%	90%
Unplanned interruptions: Non MOBs	Bespoke	Financial Output Delivery Incentive	Annual	Average duration (hours)	12	14	14	13
Unplanned interruptions: MOBs	Common	Financial Output Delivery Incentive	Annual	Average duration (hours)	518	601	601	601
Collaborative streetworks	Common	Financial Output Delivery Incentive	Annual	No. of projects (max)	9	7		
Vulnerability and Carbon Monoxide Allowance (VCMA)	Bespoke	Use it or lose it allowance	Period	Allowance (£m)	31.3	17.5	20.9	15.2
Consumer vulnerability minimum standard	Common	Licence Obligation	Annual	Compliance	✓	✓	✓	✓
Consumer vulnerability reputaional incentive	Common	Reputational Output Delivery Incentive	Annual	Various measures	✓	✓	✓	✓
Personalising welfare facilities	Common	Price Control Deliverable	Period	No. of customers supported		164250		

Customer service

Customer Satisfaction ('CSAT')

Output performance summary

Output name	Annual Target	2024/25 Performance			
		EN	LN	NW	WM
Unplanned supply interruptions	9.37	9.67	9.57	9.68	9.66
Connections	8.38	9.41	9.34	9.39	9.19
Planned supply interruptions	8.51	9.16	8.87	9.17	9.14

A financial output delivery incentive ('ODI-F') was introduced for RIIO-1, which has been continued in RIIO-2. It was aimed at driving GDN focus on improving customer satisfaction with the key services they provide. The incentive is aimed at rewarding exceptional customer service and penalising deterioration in customer satisfaction.

In the earlier years of RIIO-1, we lagged behind other networks. However, following the formation of Cadent (having come out of National Grid) and the new Executive team's relentless focus on improving customer service, we have closed the gap with the other companies and are now consistently in the top positions in the GDN ranking across all our core services.

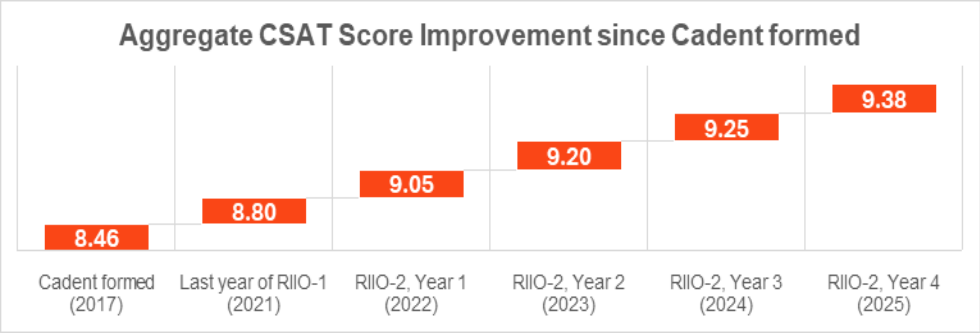


Figure 5.9: Aggregate CSAT score

Our RIIO-2 customer strategy set out our commitment to establish a customer-centric operating model. The aim of this was to create closer proximity between our customers and decision makers in our business, by switching from a highly centralised process-centric model to a regional one, placing greater emphasis on local accountability to deliver strong customer outcomes. In implementing this, we have delivered year-on-year improvements in customer satisfaction.

The unvalidated GDN league table shows that three of our networks are in the top four positions at an aggregate level. This reflects the sustained improvements in our processes and the dedicated efforts of our workforce to enhance the customer experience. These achievements underscore our commitment to driving continuous improvements; ensuring the customer is at the heart of everything we do and that their experience with Cadent is a positive one.

Network	23/24	24/25	Movement from last year
EN	9.33	9.41	+0.08
LN	9.16	9.26	+0.10
NW	9.25	9.41	+0.16
WM	9.19	9.33	+0.14

Table 5.10: Average CSAT scores by network across all surveys

Unplanned supply interruptions

This survey measures our Emergency Response & Repair service. We continue to achieve very high scores, with an average score of 9.65 out of 10 across our networks. All our networks improved on or maintained performance compared to last year and the unvalidated GDN CSAT league table shows that three of our networks are in the top five positions.

Network	23/24	24/25	Movement from last year	Average GDN Score
EN	9.67	9.67	0.00	9.71
LN	9.55	9.57	+0.02	
NW	9.67	9.68	+0.01	
WM	9.63	9.66	+0.03	

Table 5.11: Unplanned supply interruptions CSAT scores by network

Our 2024/25 plans remained centred on learning from key consumer insights with a specific focus on reducing disruption from our works, notably on reducing the frequency and length of gas supply interruptions, and ensuring we complete reinstatement works efficiently and to a high standard. We have embedded a solid process in all networks to communicate with impacted customers after our works, ensuring they fully understand next steps after our attendance.

Connections

Network	23/24	24/25	Movement from last year	Average GDN Score
EN	9.27	9.41	+0.14	9.20
LN	9.24	9.34	+0.10	
NW	9.16	9.39	+0.23	
WM	9.08	9.19	+0.11	

Table 5.12: Connections CSAT scores by network

We continue to lead the sector in customer satisfaction with our connections service with our overall score increasing by an average of +0.16 compared to the previous year. We achieved an average of 9.36 out of 10 (our highest ever score), significantly exceeding our regulatory target of 8.38 in all four networks. All our networks improved on performance compared to last year and the unvalidated GDN CSAT league table shows that four of our networks are in the top five positions.

We have developed a structured approach to reviewing the customer journey which has supported our ability to resolve issues at the root cause and drive continual improvements. One of our key improvements relates to our planning and work execution processes, enabling us to successfully deliver on our promise**s.**

Planned supply interruptions

Network	23/24	24/25	Movement from last year	Average GDN Score
EN	9.05	9.16	+0.11	9.07
LN	8.68	8.87	+0.19	
NW	8.91	9.17	+0.26	
WM	8.85	9.14	+0.29	

Table 5.13: Planned supply interruptions CSAT scores by network

Last year we recognised that there were some opportunities for further improvement in our planned work CSAT and implemented several initiatives to target areas of improvement. Customers have recognised these improvements and our customer satisfaction with our planned work increased by an average of +0.21 compared to the previous year, with significant improvements in all four of our networks. We achieved an average of 9.12 out of 10 (our highest ever score), exceeding our regulatory target of 8.51 across all four networks. We are now leading the sector and the unvalidated GDN CSAT league table shows that three of our networks are in the top four positions for planned work.

We've improved performance around several key areas of our customer journey, from improving and broadening our communication channels, speed and quality of reinstatement and implemented real-time tracking of customers off gas to minimise disruption and get customers back on gas sooner.

Complaints handling

Output performance summary

Output name	Minimum Performance Level	2024/25 Performance			
		EN	LN	NW	WM
Complaints Metric	5	1.27	1.22	1.18	1.10

When things do go wrong, we know customers want issues to be resolved quickly and without any hassle. The RIIO-GD2 complaints metric is a penalty-only financial output delivery incentive designed to drive improvements in gas distribution companies' complaint handling performance.

All our networks have performed significantly beyond the minimum standard of five against the complaint's metric and resolved more than 90% of complaints within the first working day. Our continued focus to respond and resolve complaints has improved an already industry-leading level of performance. We have driven this by utilising and empowering local teams to resolve complaints directly, using their knowledge, expertise and experience to the satisfaction of our customers.

Network	23/24	24/25	Movement from last year
EN	1.09	1.27	-0.18
LN	1.03	1.22	-0.19
NW	1.84	1.18	+0.66
WM	1.34	1.10	+0.24

Table 5.14: Complaints Metric scores by network

Network	23/24	24/25	Movement from last year
EN	90.44%	89.29%	-1.11%
LN	92.07%	91.51%	-0.59%
NW	85.70%	90.76%	+5.06%
WM	87.50%	90.05%	+2.55%

Table 5.15: D+1 Resolution by network

Connections Guaranteed Standards of Performance ('GSOP')

Output performance summary

Output name	Minimum Performance Level	2024/25 Performance			
		EN	LN	NW	WM
GSOP 4-11	90%	>90%	>90%	>90%	>90%

We endeavour to deliver a high-quality experience for every customer we interact with, recognising that there is a standard that customers should expect, and when these standards are not met that these customers are compensated.

The minimum standards for our connections delivery service are measured via Guaranteed Standards of Performance ('GSOP'). Customers are entitled to a compensation payment if we fail to deliver against them and we are obliged to meet them at least 90% of the time (as per Standard Special Condition D10: Quality of service standards). In 2024/25 we significantly exceeded the 90% standard for all GSOPs across all our networks.

GSOP	EN	LN	NW	WM
GSOP 4: Provision of standard quotation	99.14%	98.90%	98.85%	99.11%
GSOP 5: Provision of non-standard quotation (≤275 kWh per hour)	99.62%	98.86%	99.17%	99.54%
GSOP 6: Provision of non-standard quotation (>275 kWh per hour)	97.86%	98.52%	97.83%	96.75%
GSOP 8: Response to land enquiries	99.50%	97.75%	98.71%	99.47%
GSOP 9/10: Provision of a date for starting and finishing work	99.11%	98.57%	99.90%	97.81%
GSOP 11: Completing work in the agreed timescales	95.80%	98.04%	97.23%	96.34%

Table 5.16: Connections GSOP performance against 90% standard by network

Keeping the energy flowing

Unplanned interruptions

Output performance summary

Output name		EN	LN	NW	WM
Non-MOBS Unplanned Interruptions	Minimum Performance Level	12	14	14	13
	2024/25 Performance	5.6	12.3	8.8	5.7
MOBS Unplanned Interruptions	Minimum Performance Level	518	601	601	601
	2024/25 Performance	87.2	318.3	67.7	159.7

While we are dedicated to operating a reliable gas network 24/7, there may be unforeseen occasions where a customer experiences an interruption to their gas supply without prior notice. We recognise this can be extremely distressing for customers and it is imperative we seek to restore gas supplies in a timely manner.

For RIIO-2, Ofgem introduced a penalty only financial output delivery incentive ('ODI-F') to monitor the average duration of unplanned interruptions and protect customers from any deterioration in performance from 'acceptable' levels delivered during RIIO-1.

Cadent has two Unplanned Interruption measures, one measuring the average duration of unplanned interruptions in Multiple Occupancy Buildings (MOBs), as defined in our gas transporter licence, and another for all other buildings (i.e. non-MOBs). The other GDNs have a combined measure for Unplanned Interruptions, but for RIIO-3 will have separate MOB and Non-MOB measures.

For each measure, a Minimum Performance Level (MPL) and an Excessive Deterioration Level (EDL) were set, with a financial penalty increasing between these levels. These MPLs and EDLs are network-specific recognising the regional factors that impact unplanned interruption response.

Unplanned interruptions in non-MOBs performance

Whilst average durations fluctuate year on year, all our networks have performed better than their MPLs. In 2024/25, Eastern, North West and West Midlands finished the year significantly below their MPLs. Our London network came in closer to the MPL, due to the impact of a number of complex non-MOB buildings (predominantly large buildings with multiple properties, however not served by a gas riser). These sites are more similar to MOBs than other non-MOBs, which due to their complexity sees an increasing overall average interruption duration.

The RIIO-3 Sector Specific Methodology Decision ('SSMD') and Draft Determinations ('DDs') propose to introduce common industry targets for non-MOB interruptions. This is due to Ofgem's belief that non-MOB interruptions are not as complicated to restore as those in MOBs and that there is a small spread of average durations across the GDNs. However, we are concerned that this does not account for regional differences, especially around London where there are a large number of complex non-MOB buildings which skew the annual average restoration timescales for the non-MOBs on our London network (explored in the section below). These regional differences do account for what could be considered a significant statistical spread in average durations in 2023/24 ranging from 4 hours in NGN to 23 hours in Southern (almost 600%).

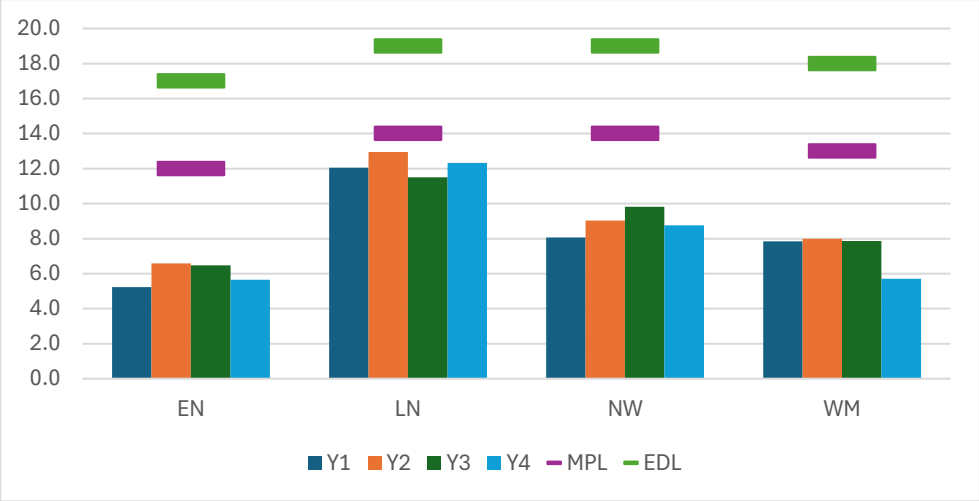


Figure 5.17: Non-MOBs Unplanned Interruptions Average Duration (Hours)

Complex non-MOBs

While interruptions in 'Complex non-MOB' buildings are reported as non-MOBs interruptions, their characteristics have more in common with MOBs than they would other non-MOBs (i.e. single occupancy buildings). We often have to pass the work required to restore supply to these buildings to our MOBs teams to rectify due to complex nature of the sites. This is despite these installations not meeting Ofgem's definition of a 'MOB'.

As outlined in our gas transporter licence, a 'MOB' is a building containing a minimum of three individual premises, each with a separate supply point and supplied via an internal or external riser, and where at least one of those premises is more than two floors above ground level. Buildings where all premises on the third floor or above are supplied through individual pipes, with the meter and emergency control valve located at a lower level, are not included.

We see a large proportion of these complex building types in our London network which increases the difficultly of rectifying an otherwise straightforward unplanned interruption. In 2024/25 there were 144 interruptions on complex non-MOBs with an average duration of 128.5 hours. If these interruptions were to be separated from the total non-MOBs average duration, performance would have been around 10 hours, rather than 12.3 hours. In 2023/24, while we saw a smaller number of these complex non-MOB interruptions (66), the average duration was much higher at 189 hours.

Despite complex non-MOBs accounting for less than 2% of the total non-MOB interruptions, in 2024/25 they made up nearly 20% of the total duration of unplanned interruptions.

Given this information, setting a common minimum performance level based on an unrepresentative geography and building population would seem to unduly penalise the London network, whilst potentially not incentivising other networks to manage their interruption performance to the benefit of their customers.

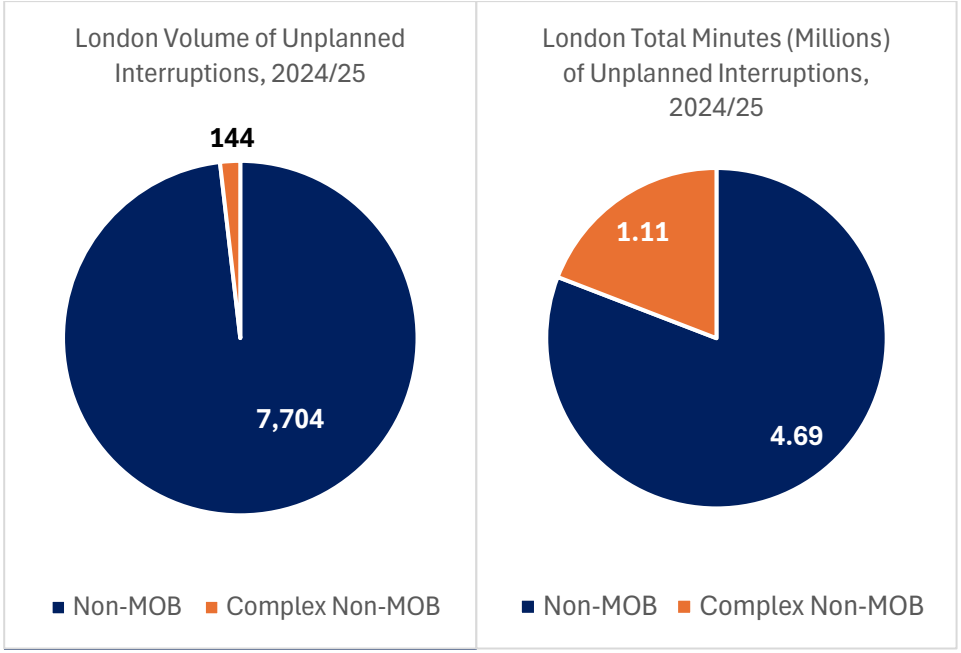


Figure 5.18: 2024/25 London unplanned interruptions – Volume & Duration

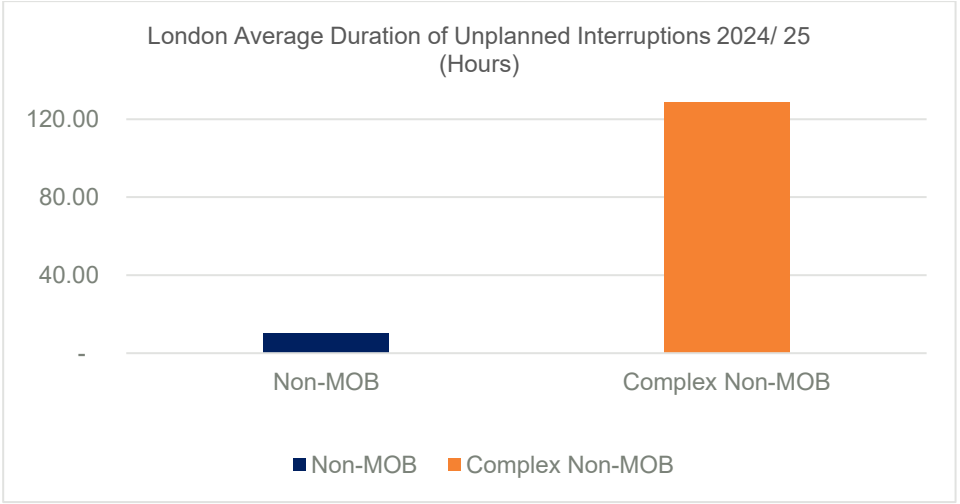


Figure 5.19: 2024/25 London unplanned interruptions – Average duration

Unplanned interruptions in MOBs

In 2024/25, all our networks performed better than the MPL. With the complex nature of MOBs interruptions considered, the average durations can fluctuate significantly year on year, with the mix of buildings and differing levels of permissions required impacting the time it takes to restore customers. While we are committed to restoring customers as quickly and efficiently as possible, there are a number of factors impacting MOB interruptions which are largely outside of our control. However, over the RIIO-2 period to date each of our networks have performed below the MPL every year.

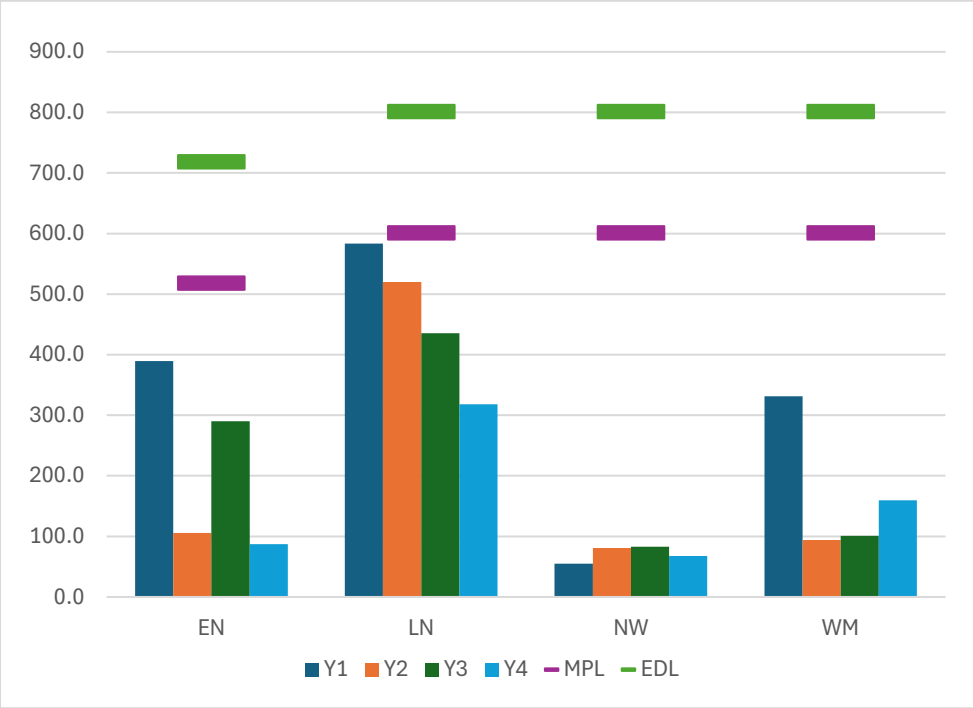


Figure 5.20: MOBs Unplanned Interruptions Average Duration (Hours)

Case study: Muswell Hill, Hornsey and Colney Hatch

In the early hours of 12th January 2025, a major incident caused by water ingress saw over 60,000 litres of water infiltrate our East of England gas network. Almost 3,000 customers had their gas supply impacted due to an incident outside of our control. To recommission supplies in the most efficient manner, we created two zones each with multiple phases that isolated parts of the network section by section. Each phase systematically had the excess water extracted, gas recommissioned in the network, before finally restoring customers' supplies.

This challenging incident saw a massive effort across our East England network with more than 100 Cadent engineers and staff on site at the peak. We received fantastic support from The British Red Cross and their partners, Barnet Council, Haringey Council (their emergency planners), and Colney Hatch Tesco. We maintained consistent communication across multiple online platforms, a dedicated customer centre was set up at the Freehold Community Centre, and we made available alternative cooking and heating supplies, such as fan heaters and hot plates, to those in need. In addition to this, we made arrangements to provide shower facilities at a local lido for the affected residents, and we also made the decision to pay compensation directly to each affected bill payer as soon as their gas supply had been restored. By 27th January 2025, the incident was closed. We received many encouraging messages from residents to show their appreciation for our efforts, in particular as our engineers had worked through the night to support the response.

"There are 100 engineers from around the UK working on this huge problem. I really do think they are doing their best…"

"They should be knighted for everything they do…"

"They really are unsung heroes…"

This incident alone accounts for 93% of our Eastern network's GSOP 1 payments and 43% of all Cadent GSOP 1 payments in 2024/25.

Major Supply Incidents

Gas supply interruption events are classed as major incidents when more than 250 supplies are interrupted. Many of these are caused by water ingress, which occurs when water enters the gas network and impacts the supply of gas to consumers' properties. The causes of water ingress are commonly burst water mains, or significant leaks from the water network, which cause damage to the gas asset, enabling water to enter the gas network.

It only takes the equivalent of one egg cup full of water to enter the gas main to cause supply issues, however, in some instances these events can result in thousands of litres of water needing to be removed from the gas network.

Water Ingress Major Incidents are not in the control of the GDNs; usually operationally challenging and are costly to respond to and are likely to leave a customer without gas for a prolonged period. Furthermore, the customer's gas meter, in-home gas pipework and appliances are at risk of water damage, which then require repair or replacement.

The following charts show that when compared to other Major Incidents, events that are outside of Cadent's direct control have a far greater impact upon customers. Specifically, water ingress events which make up 36% of Cadent's Major Incidents reported in the first four years of RIIO-2. Since the start of RIIO-2, these events have made up 46% of the customer supply interruptions and 42% of the total interruption minutes associated with Major Incidents. This shows that they are the largest cause of Major Incidents, impact the most customers per incident and have resulted in the highest volume of supply interruption minutes attributed to Major Incidents during RIIO-2, with the longest average duration per customer.

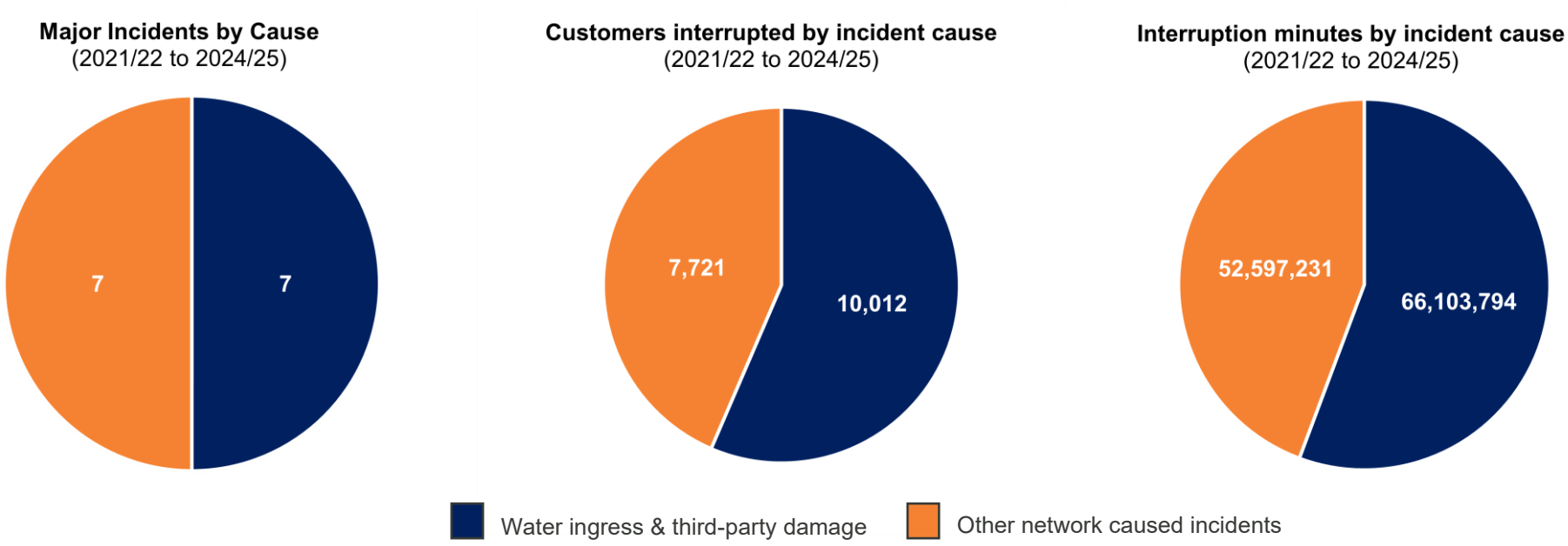


Figure 5.21: Major Incidents – Volume, customers interrupted, minutes

Collaborative Streetworks

Output performance summary

Output name	2024/25 Performance			
	EN	LN	NW	WM
Collaborative streetworks	0	7	N/A	N/A

Due to the nature of our gas network, to carry out improvements we often have to work in pathways or in the road, causing disruption to our customers, commuters and road users. When developing the RIIO-2 Business Plan, our customers informed us that they want us to collaborate with other utilities when we undertake streetworks so that disruption is kept to a minimum. From this, the Collaborative Streetworks financial output delivery incentive ('ODI-F') was introduced in RIIO-2 for networks that operate in Greater London (i.e. Cadent – Eastern and London, and SGN Southern).

In 2024/25 we worked collaboratively with other utility providers on 70 streetworks projects which saved 700 days of disruption. Of these, seven met the criteria for the incentive which saved 115 days of disruption. Whilst there is a fixed incentive reward for each project delivered, the social value generated for each completed project is far greater, benefiting our customers and wider society.

All seven projects were completed in our London network, which covers a much larger proportion of Greater London for which the incentive applies. The opportunity in our Eastern network is much smaller as only a small proportion of the network covers the Greater London region (8.6%), and whilst we pursued several opportunities to collaborate, the projects did not follow through to delivery in 2024/25.

Tabe 5.22 summarises the incentive-applicable collaborative streetworks projects completed in 2024/25 and the estimated days saved in reduced disruption.

Project name	Collaborative partners	Est. number of days saved
Wood Lane	Thames Water	7
Farringdon Street	UKPN	17
Vallance Road	UKPN & Thames Water	4
Artillery Lane	UKPN & Thames Water	12
Vernon Place	London Borough of Camden	10
Stag lane	Affinity Water	21
Station Road	UKPN	44

Table 5.22: 2024/25 Collaborative streetworks projects delivered

Within the Eastern network, we identified several collaboration opportunities throughout Year 4 however, due to procurement and permitting constraints, we were unable to deliver these. The Eastern Streetworks team continue to engage with the Greater London Authority (GLA) and utilise their mapping tools to identify suitable schemes. We aim to maintain early engagement to ensure collaboration opportunities are explored with enough time to account for challenges.

We continue to utilise our monitoring and evaluation (M&E) tool to support the delivery of projects with local authorities, providing a pre-emptive look at the associated benefits, and during the end of projects to track the benefits of each project. The GLA have developed a new digitised M&E tool to easily display the incentive statistics by criteria. Alongside this implementation, we maintain the quarterly engagement sessions with the GLA to review our deliverable schemes.

The 'collaborate on everything' model that we started in year one continues to be successful, and we have engaged with a variety of organisations and workstreams. For the third year running, Streetworks UK has awarded us (alongside Camden Council) the accolade of "Streetworks Collaboration of the Year" for our works on the Parliament Hill Sustainable Drainage System (SuDs) project. The SuDs project has also allowed us to develop several Construction, Design and Management (CDM) processes for site take overs to ensure the safety of everyone involved when collaborating on works, which has been shared with the GLA to help enable more collaborations. Our 7 key collaboration projects were presented to the GLA for

independent approval – this was detailed in our new process flow report, which we completed throughout the year and checked regularly. Further information on each of the projects delivered has been published on the Future Energy Network's (FEN) Innovation portal.

As part of our RIIO-3 Business Plan, with support from regional stakeholders, we proposed expanding Collaborative Streetworks across all networks. Key customer insight results showed that two thirds of our surveyed customers experienced a disruption during the last 12 months and, unsurprisingly, over 70% support the expansion of the scheme with the greatest support being outside of London. We have engaged with various local and combined authorities who are keen to see collaborative working implemented within their regions. As such, we are delighted that Ofgem's RIIO-3 Draft Determinations supports this proposal and has signalled the expansion of the incentive across all networks.

Figure 5.23: Streetworks UK Awards

Supporting customers in vulnerable situations

Vulnerability and Carbon Monoxide Allowance (VCMA)

Output performance summary

Output name	2024/25 Performance			
	EN	LN	NW	WM
VCMA (£m invested)	11.8	6.6	7.8	5.7
Fuel poor connections (period to date)	1,774	482	1,060	1,195
CO awareness (score out of 10)	9.13	8.86	8.67	9.12
PSR CSAT (score out of 10)	9.49	9.40	9.49	9.35

We are motivated by the social impact we can have on our customers and the communities that we serve, and this is a key part of how we do what we do – with our aim of making life easier, fairer, and greener for our customers and colleagues. Over the past four years we have continued to recognise how situations in our society impact on our customers, particularly those who are most vulnerable - with inflation and rising energy bills impacting households across the UK. We recognise the role Cadent, alongside the other GDNs, can play in supporting and tackling vulnerability, and therefore when Ofgem introduced the Vulnerability and Carbon Monoxide 'Use it or lose it' (UIOLI) allowance for RIIO-2 and granted Cadent £84.98m to support our customers in vulnerable situations we did our utmost to utilise it for the benefit of our customers.

We are proud to be leading the sector with our activities to support vulnerability and social purpose. We have significantly scaled up our support to maximise our impact with groundbreaking initiatives such as Centres for Warmth which has been vital to the communities we serve. We have focussed our efforts and funding to support more customers in fuel poverty. This revised approach allowed an increase in the number of cost of living and fuel poverty focused projects which we were able mobilise quickly to ensure that the maximum support could be provided.

The fourth year of the Vulnerability and Carbon Monoxide Allowance (VCMA) saw our first full year of Ofgem's decision to reallocate a proportion of the Fuel Poor Network Extension Scheme (FPNES) funding into the VCMA due to changes in the Energy Company Obligation (ECO) scheme which reduced the amount of funding available to off-grid customers for first-time gas central heating (FTGCH). In the last 12 months, we have worked on over 80 projects and invested £31.9m of the VCMA,

creating social return on investment of £21.84 per £1 committed over the RIIO-GD2 period to date. We have used this investment to support customers with a wide range of innovative and effective services to increase awareness of the dangers of Carbon Monoxide poisoning, reduce fuel poverty and identify individual needs and joining up services to meet these.

We initially committed to an expenditure of £27.6 million for the fourth year of RIIO-2. However, we revised our forecast to £32.5 million to accommodate the earlier implementation of initiatives focused on fuel poverty, with our actual spend being £31.9m (within 1% of our amended forecast).

The collaborative VCMA focus continues to be on large scale national projects and campaigns, whereas our individual company funding focuses more on local partnerships. We continue to be successful with our local approach which has allowed us to reach customers most at need. Key initiatives such as our Centres for Warmth, Mobile Warm Hubs, regional Citizens Advice partners, NPCC, YMCA and other smaller partners and organisations demonstrate our local focus.

We are forecasting a spend of £29.9m across company and collaborative projects in the final year of RIIO-GD2 to invest our full £85m VCMA allowance whilst continuing to deliver positive social return for each investment.

£m (18/19 prices)	21/22	22/23	23/24	24/25	25/26	Total
	Actual				*Forecast*	
Cadent specific fund	2.1	4.1	9.0	19.0	19.9	**54.1**
Collaborative fund	0.8	2.3	4.8	13.0	10.1	**30.9**
Total VCMA	**2.9**	**6.4**	**13.9**	**31.9**	**29.9**	**85.0**

Table 5.24: VCMA Actual and Forecast spend over RIIO-GD2

Our vulnerability strategy is built around four key priority areas: tackling fuel poverty, carbon monoxide awareness, identifying individual needs and joining up services, and going beyond the meter to never leave a customer in a vulnerable situation without gas. Our 2024/25 VCMA Annual Report provides detail on how we have performed against these priority areas, however in the next sections we provide some insight, including performance against the consumer vulnerability reputational incentive measures.

Tackling fuel poverty

Over 6 million in the UK live in fuel poverty today and there are no signs of the fuel crisis reducing. We continue to deliver initiatives focused on the provision of tailored, professional, face-to-face energy and income maximisation advice to families most in need. We offer these services in people's homes, but we reach more households through our expanding network of Centres for Warmth, which support local communities. We conceptualised and introduced Centres for Warmth and they are unique to Cadent, these hubs are where we fund professional resources to provide a range of financial and safeguarding support. This year we exceeded our stretch target of having over 350 Centres for Warmth, with the centres now seeing an average of 60,000 people every week. The average household who attend the centres have benefitted from an estimated energy bill saving of £2,500 as a result; resulting in an at least overall benefit of £184m to some of the most vulnerable customers across our network.

Fuel Poor Network Extension Scheme (FPNES)

To help tackle fuel poverty and provide access to affordable heating, the Fuel Poor Network Extension Scheme (FPNES) mechanism was introduced for RIIO-2 to support off-grid, fuel poor households to connect to the gas network. This was put in place by Ofgem as means of reducing fuel bills for customers who were using electricity, oil or other non-mains gas fuels to heat their homes. Ofgem's decision to repurpose the FPNES fund into the VCMA has meant that we have significantly changed our approach to supporting customers in fuel poverty. Despite reduced funding for off-grid customers for in-home measures, we have delivered 43 Fuel Poor Connections and in total over the RIIO-GD2 period to date we have delivered 4,511, which equates to just over 72% of the five-year period target of 6,250.

Irrespective of the changes to the FPNES and funding landscape, we remain committed to supporting off-grid fuel poor households through the FPNES, alongside driving multi-millions of pounds worth of social value through the increased VCMA and Cadent Foundation, our shareholder-funded charity which supports vulnerable customers. Due to reduced funding, FPNES volumes for 2024/25 have reduced from last year and we expect output figures to remain at the lower end of the scale throughout the remainder of RIIO-GD2.

Network	FPNES connections delivered over RIIO-GD2	Period target	% Delivered vs. target	Cap	% Delivered vs. cap
EN	1,774	2,050	87%	2,446	73%
LN	482	500	96%	639	75%
NW	1,060	2,250	47%	1,909	56%
WM	1,195	1,450	82%	2,003	60%
Cadent	4,511	6,250	71%	6,997	64%

Table 5.25: RIIO-GD2 FPNES connections delivered vs. annual targets and cap

Carbon Monoxide (CO) Awareness

We introduced a new Carbon Monoxide (CO) Ecosystem last year and it has been hugely successful for 2024/25. We have created a platform called CORA that is available for all interested parties across the CO landscape to provide data or information pertinent to CO. This is truly an innovative concept that has now been adopted by other GDNs and is the first time the industry has a central repository for all CO data. The data and information has been provided by 13 organisations and partners and has resulted in tens of thousands of lines of data.

This year, we have significantly grown our school aged education programme, introducing a KS3 initiative called '221 Baker Street' to target secondary school pupils and we have grown our Minecraft model with a relaunch and update of a play at home CO unit that no longer needs to be completed in a classroom environment. We have also created our own CO Competition alongside Fun Kids Radio, which encourages children to write a 30 second radio advert to help listeners understand the dangers of CO with the winning scripts played across the channel to further educate Fun Kids Radio listeners. We have aimed these projects at educating young people and together these have allowed us to directly reach over 207,000 children and young people and indirectly over one million people.

Due to differences between GDNs in measuring CO awareness reach, we have worked collaboratively with SIA Partners to develop a more accurate percentage knowledge retention rate to apply per communication method. With the developed rates applied, we have reached nearly 2.7m people through media campaigns.

We continue to measure CO awareness through a common survey which is completed on emergency jobs with customers by our first call operatives (FCOs) as well as through our partnerships. Our FCOs share knowledge and information about the dangers of CO, and the survey allows us to demonstrate customer awareness pre and post CO discussions. Of the 70,744 customers who have been surveyed in 2024/25, we have seen an average increase in knowledge of 2.35 points (out of 10).

	EN	LN	NW	WM	Cadent
Average score before	6.84	6.52	6.58	6.45	6.60
Average score after	9.13	8.86	8.67	9.12	8.95
Average score difference	2.29	2.34	2.09	2.68	2.35
No. of customers reached (million)	4.13	2.22	2.89	2.03	11.27

Table 5.26: 2024/25 CO awareness survey scores and reach

Identifying individual needs and joining up services

Despite our huge efforts to raise awareness of the Priority Services Register (PSR), and remove the stigma associated with the word 'vulnerability', we know that many more of our customers could be registered on the PSR, who are not. This is why we continue to engage with hundreds of thousands of our customers each year, to talk about the PSR and work with trusted partners to share this information with the communities they have developed trust with. We continue to explore new and innovative ways to share this information, considering the language and the channels we use to communicate with our customers, including how we engage with non-native English speakers.

Vulnerability is ultimately transient and therefore the PSR will never be complete. This is why we invest in a range of industry leading data analytics, using multiple data sources to provide the most advanced and accurate view of customer needs, so we can target proactive measures to provide the necessary support packages.

Over the course of RIIO-GD2, we have had 2.8 million direct PSR conversations, making great progress against our commitment to have over 4 million conversations by the end of the period. We have also formed 140 strategic partnerships to help extend our reach and positive social impact.

We use our accreditation to the BS ISO 22458 standard as a means of ensuring that we are delivering positive outcomes and an inclusive service for customers living in vulnerable situations.

Our ongoing commitment to support customers in vulnerable situations is reflected in the scores provided by Priority Services Registered customers, who gave us an average of 9.38 out of 10. Our PSR customers scored us higher on average in all four of our networks compared to CSAT for all customers.

Network	PSR CSAT score	Difference vs. all customer CSAT
EN	9.49	+0.08
LN	9.40	+0.14
NW	9.49	+0.08
WM	9.35	+0.02
Cadent	9.38	+0.08

Table 5.27: Average PSR CSAT by network across all surveys:

Going beyond the meter to never leave a customer vulnerable without gas

Previously, we may have needed to switch off a customers' gas supply at the meter, leaving them safe but without heating or cooking facilities. Now through the specific services we have developed, which include CO investigations, we can keep more customers on gas.

Along with us undertaking these in home measures and interventions, we provide all eligible customers with energy efficiency and CO advice. Additionally, by working with our expert partners, National Energy Action and Groundworks UK, we can refer customers to them to see if they are entitled to further income support or energy measures.

This year, we have expanded our team of trained in-home pipework and appliance engineers to 80, we have introduced the programme to several charity partners who can now make referrals into Services Beyond the Meter. Through this, we have helped around 6,000 customers to date.

This year, we were awarded IGEM's Customer Service Award for our Services Beyond the Meter scheme. The judges commented that this programme:

"Delivers exceptional, 24/7 customer service with a direct impact on thousands of vulnerable households. Its proactive approach, including 29,000 funded interventions, CO investigations, appliance repairs, and crisis support, demonstrates industry-leading dedication. The 10/10 customer satisfaction tracking, extensive training and return on investment cement this as a gold standard initiative and it provides world-class customer service across the board".

Figure 5.28: IGEM Gas Industry Awards 2025 – Customer Service Award

Personalising Welfare Facilities

Output performance summary

Output name	Period target	End of period forecast			
		EN	LN	NW	WM
Personalised Welfare	164,250	>200,000			

During supply interruptions, we want to ensure our customers in vulnerable situations are supported with alternative provisions to keep warm, safe and comfortable in their homes. As such, as part of our RIIO-2 Business Plan, we proposed a Personalising Welfare Facilities Price Control Deliverable ('PCD') which centres around offering additional personalised welfare provisions to these consumers. In the RIIO-2 Final Determinations, Ofgem recognised the significant additional value this would deliver to customers above our minimum standards (GSOPs) and this was the only bespoke proposal made by any of the GDNs that received an Ofgem Consumer Value Proposition ('CVP') reward under the Business Plan Incentive ('BPI').

Our provision of personalised welfare products and services has increased significantly from last year, with 70,657 customers benefiting in 2024/25; a 37% increase from 2023/24. These figures reflect the successful implementation of several initiatives and innovations being embedded across our processes by our Safeguarding Strategy Team.

At the start of the period, we set a target to support 164,250 customers and by the end of Year 4 we have reached 92% of this target. Given the significant ramp up in Years 3 and 4 and an expected further ramp up in the final year of RIIO-GD2, we anticipate that we will support more than 200,000 customers in total, delivering a significant outperformance. Despite the over-delivery in terms of customers supported, we are forecasting an underspend against the £12.4m PCD allowance. We had anticipated a high uptake in more expensive products / services such as alternative heating and temporary accommodation; however, customers have preferred less expensive alternatives such as food vouchers and products such as blankets, therefore we are at a current spend of £4.4m across PSR and Non-PSR for all Cadent networks.

	EN	LN	NW	WM	Cadent
Provisions to PSR customers	18,067	6,996	8,280	5,474	**38,817**
Provisions to non-PSR customers	11,930	5,035	9,710	5,165	**31,840**
Total	**29,997**	**12,031**	**17,990**	**10,639**	**70,657**

Table 5.28: Number of personalised welfare facilities provided in 2024/25

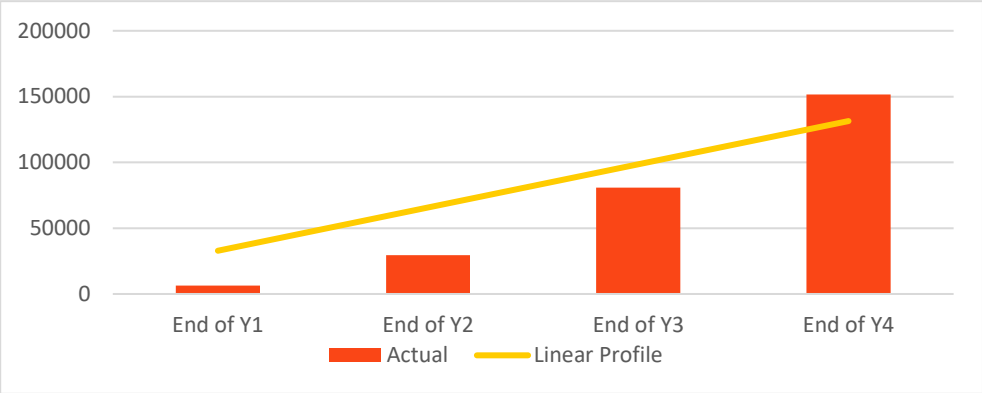


Figure 5.29: Number of personalised welfare provisions

We have made significant developments this year to grow the positive impacts of Additional Welfare Products (AWP) when PSR customers and non-PSR (or those who are in a vulnerable situation) are off-gas due to our works.

We have now developed and deployed Phase 2 of our Additional Welfare Decision Tool (AWDT), which supports our commitment of providing AWPs by specific customer need to households in a gas-off situation. Our new version allows our colleagues to place welfare orders for Next Day delivery (7 days a week) directly through our delivery partners. Furthermore, as we have introduced a Logistics Portal within the tool, teams across Cadent can track where items are from point of order and when items are dispatched right through to when they are delivered with the portal incorporating photo/signature confirmation capability. We will now move into the 3rd and final stage of our AWDT development which will enhance the tool to provide Multiple Property functionality. We are also going to extend use of this tool outside of this being GDN specific by engaging charity partners and other industry

participants (DNOs & Water Companies) to offer them to utilise the tool to support their customers and service users.

We have continued to develop our systems, processes and logistics to improve our capability to capture and report of AWP provision allowing us to move away from assumptions previously used and offer a high level of confidence in the figures we report via RRP.

In addition to our developments this year, we have continued to see our food vouchers (and e-voucher) schemes to access already prepared hot food as highly popular with customers. Whilst we offer alternative cooking equipment, many customers prefer vouchers as they can avoid the additional costs of running the alternative cooking equipment and, knowing that an outage will be relatively short, do not wish to be left with the additional equipment. We have added the option for customers to request Parsley Box microwaveable meals for those who are in more rural areas or do not want to order from restaurants or take-aways.

We have continued with our process across all Cadent networks to provide customers who were left electrical AWPs once their gas has been restored, to be contacted, offered, and paid respective running cost payments to support the cost-of-living crisis. This has resulted in 2,200 customers contacting Cadent to accept the electric welfare payments at a combined amount of £192,109.72 paid directly to the customers (based on 37p per KWh energy costs).

Tackling climate change and improving the environment

Output commitments					Target/commitment			
Output name	**Common/ bespoke**	**Output type**	**Annual/Period target**	**Measure/unit**	**EN**	**LN**	**NW**	**WM**
Shrinkage reputational incentive	Common	Reputational Output Delivery Incentive	Annual	GWh (baseline)	350.5	179.6	248.9	229.6
Shrinkage financial incentive: Average system pressure	Common	Financial Output Delivery Incentive	Period	mbar	28.2	26	27.3	26.6
Shrinkage financial incentive: MEG saturation	Common	Financial Output Delivery Incentive	Period	% saturation	34%	36%	30%	41%
Commercial EV fleet: Vehicles	Common	Price Control Deliverable	Period	No. of vehicles (max)	351	235	243	170
Commercial EV fleet: Electric charging points	Common	Price Control Deliverable	Period	No. of charging points (max)	141	95	98	68
Environmental Action Plan (EAP)	Common	Reputational Output Delivery Incentive	Annual	No. of EAP commitments	30			
Annual Environmental Report (AER)	Common	Licence Obligation	Annual	Publish anually	✓			
Business Carbon Footprint	Common	Reputational Output Delivery Incentive	Annual	BCF exc. Shrinkage (tCO2e)	38,837			
Hynet Front End Engineering Design	Bespoke	Price Control Deliverable	Period	Deliver PCD outputs	✓			

Decarbonising our business operations

Environmental emissions and shrinkage

Output performance summary

		EN	LN	NW	WM
Shrinkage ODI-R	Annual target (GWh)	350.5	179.6	248.9	229.6
	24/25 Performance	341.6	171.3	239.0	221.0
Shrinkage ODI-F	End of period incentive forecast (£m, 18/19 prices)	0.28	0.06	2.38	0.48

We are responsible for operating a sustainable and resilient network, protecting the environment and taking proactive intervention to decarbonise our business operations where possible. Methane leakage, gas which leaves our network without passing through a customer's meter, commonly known as 'Shrinkage', is the largest contributing factor of greenhouse gas emissions from the gas transportation network.

Shrinkage includes non-combusted gas that leaks or is vented from our system (leakage), gas that is used for our operational purposes, for example, preheating gas prior to pressure reduction (own use gas), and gas that is stolen upstream of the meter (theft of gas).

Ofgem recognises the importance of measuring and monitoring Shrinkage reduction and in RIIO-2 introduced two output measures to target this:

- A Shrinkage reputational output delivery incentive ('ODI-R'), providing a holistic view of overall Shrinkage Reduction; and,
- A Shrinkage financial output delivery incentive ('ODI-F'), which isolates two value levers that contribute towards overall Shrinkage reduction; Average System Pressure ('ASP') and gas conditioning through mono-ethylene glycol ('MEG') saturation levels.

Shrinkage Reputational Output – ODI-R

There are a wide range of actions that GDNs can take to reduce gas shrinkage from their networks. These include replacing old metallic mains and services with new plastic ones, managing the pressure which the network operates at, and tackling the theft of gas. The Shrinkage reputational incentive requires networks to take a holistic view to reducing emissions with the aim of outperforming the baseline expectations for the reductions that can be achieved during the RIIO-2 period. To do this the GDN must balance the actions they take across all of the Shrinkage value levers.

The RIIO-2 Final Determinations took account of many factors including historic reductions and future planned investments to set baseline targets for all GDNs. At a Cadent level, our target, set by Ofgem, for RIIO-2 is to reduce Shrinkage by 16% by the end of the period.

We continue to perform well against this reputational measure, delivering Shrinkage reductions greater than baseline targets across all four networks. Shrinkage gas losses were reduced by 37.2 GWh (3.7%) when compared to the previous year (2023/24), and by 149 GWh (13.2%) when compared to the start of the period, which is equivalent to the annual gas usage of approximately 12,000 domestic houses. We are on track to achieve our 16% reduction target by the end of RIIO-2. Unsurprisingly, we continue to see the biggest reduction in our year-on-year emissions coming from delivering our mains replacement programme. This highlights the importance of developing an Advanced Leakage Management Approach to proactively target network interventions, including through mains replacement, to optimise emissions reductions. See the section on improving shrinkage management below for more information.

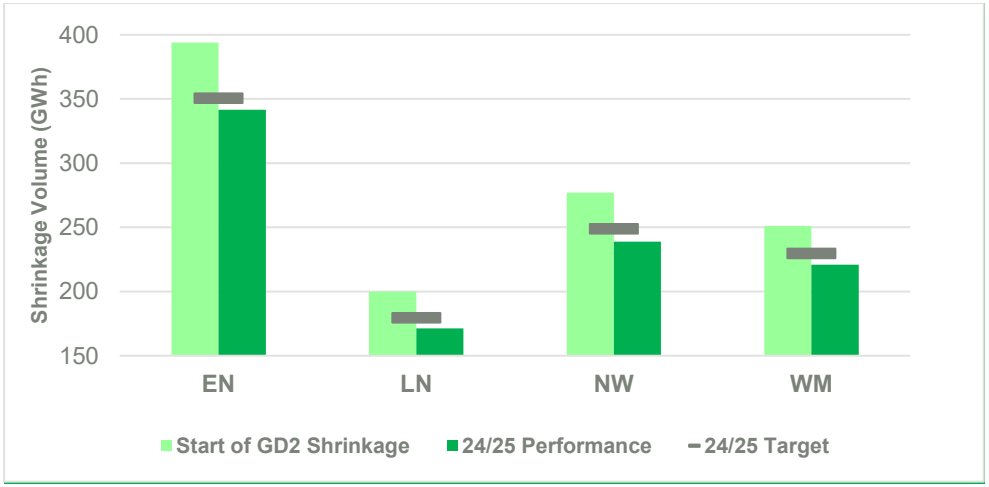


Figure 5.30: Shrinkage Performance vs. Baselines (GWh) 24/25

Our holistic and targeted approach to Shrinkage management has seen us consistently deliver the lowest emissions per customer out of all GDN companies from RIIO-1 through RIIO-2. Based on a comparison of GDN Business Plans, we expect this to also be the case in RIIO-3.

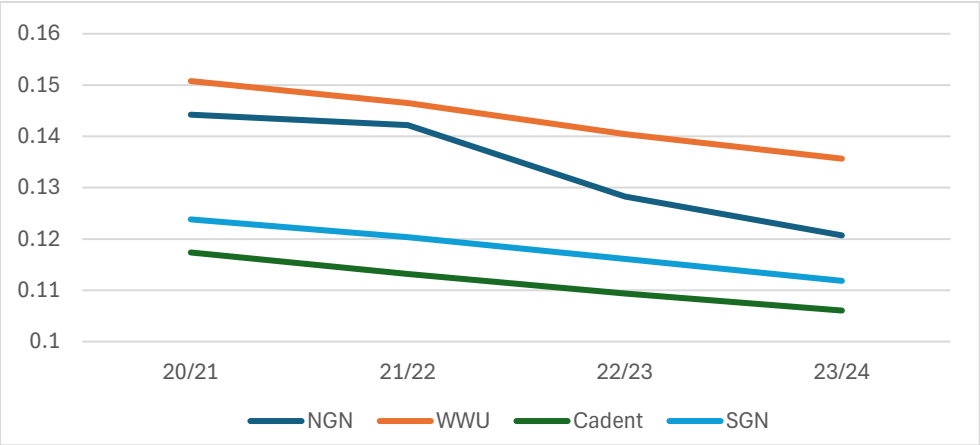


Figure 5.31: Shrinkage emissions per customer (tCO2e)[3]

[3] *Calculated using the Shrinkage and Customer number data submitted through RRP in previous years, up to and including 2023/24.*

Shrinkage Financial Output – ODI-F

The Shrinkage Financial Incentive isolates just two of the value levers which contribute towards overall shrinkage reductions. These two levers are:

- Average System Pressure ('ASP'): We need to optimise the ASP of the network to balance the ability to reduce leaks, through pressure reduction, against ensuring that there is sufficient gas pressure at consumers premises and to meet demand; and
- Gas Conditioning: By increasing the saturation levels of mono-ethylene glycol ('MEG'), a wetting agent, in relevant mains it reduces leakage from lead yarn joints. However, this must be balanced against the cost of buying, maintaining and operating this equipment needed to condition the gas, as this will become a redundant technology as metallic mains are replaced by plastic ones.

Ofgem recognised the continuous fluctuations in ASP and MEG, and as such used a three-year average (2017/18 to 2019/20) to set the incentive baselines for RIIO-2. This meant that where a GDN had optimised performance during RIIO-1 they were set more stretching targets for RIIO-2. Conversely, those networks who did not pursue these technologies in RIIO-1 had less stringent baselines set for RIIO-2 and therefore more opportunity to outperform the incentive. As such, GDN financial performance against the incentive is not directly comparable.

As detailed in the table below, so far in RIIO-2 we are achieving a reward (£2.36m) at a Cadent group level. Our North West network, which had more of an opportunity for optimisation on ASP and MEG coming into RIIO-2, has achieved the maximum reward available thus far (£1.91m). Whilst our London network (LN) is in a slight penalty position (-£0.07m) at the end of year 4, we have a plan to recover this by the end of the period, and we therefore expect all of our networks to receive a reward.

(£m, 18/19 prices)	EN	LN	NW	WM	Cadent
Year 4, *period to date*	0.17	(0.07)	1.91	0.28	2.29
End of Period Forecast	0.28	0.06	2.38	0.48	3.20

Table 5.32: Shrinkage ODI-F incentive position

Whilst this incentive position is positive and demonstrates that we are effectively managing these two shrinkage value levers, the incentive position is not truly indicative of the strength of our underlying performance in this area. As mentioned above, we achieved greater optimisation of these levers during RIIO-1 and this resulted in Cadent having more stretching incentive targets for RIIO-2

Therefore, to understand the real context of this performance and how it compares across the sector, we have assessed our performance against these two value levers, beyond the headline incentive figures.

Average System Pressure (ASP)

System pressure impacts the level of Shrinkage from the network, with increased system pressures resulting in higher levels of Shrinkage. Whilst we seek to minimise system pressures, increases are sometimes required to facilitate network reinforcement activities or as part of our ongoing mains replacement programme. Likewise, to ensure security of supply, there is a need to balance reduced ASP to minimise shrinkage but also ensure there is sufficient pressure in the network to deliver safe and reliable gas supplies.

The RIIO-2 ASP incentive mechanism was set on an average period basis (i.e. not an annual measure) with a deadband set around the target. This approach recognised that ASP can fluctuate for a range of reasons, including those outside of the GDNs' control, and that the short-term impact of exogenous factors, such as weather, could skew in-year performance. The use of a period-wide average smooths out these in-year fluctuations, and the use of a deadband manages the risk that a reward/penalty could be applied for small variances outside the GDN's control.

The table below shows the GDN RIIO-2 baseline targets for ASP, and these are subject to an asymmetric deadband of +0.6mbar/-0.3mbar around the target.

	EN	LN	NW	WM	NGN	Sco	Sou	WWU
ASP Baseline	28.2	26.0	27.3	26.6	31.6	26.4	26.6	30.0

Table 5.33: ASP Baseline Target (2017-2020 average)

This year we saw an overall increase in pressures of 0.7 mbar which resulted in a modelled increase in Shrinkage of 4.4 GWh compared to baseline levels. Despite this, period to date, ASP levels for our EN, LN and WM networks fell within the deadband, leaving them in a neutral position (no reward or penalty). Our NW network achieved average pressures below the lower deadband in each year of RIIO-2, resulting in a reward for its ASP performance.

mbar	EN	LN	NW	WM
2024/25 ASP Outturn (period to date)	28.62	26.36	26.69	26.35
Upper Deadband	28.69	26.49	27.86	27.20
Lower Deadband	27.79	25.59	26.96	26.30

Table 5.34: ASP Outturn (2024/25)

GDNs do not report ASP levels in their RRPs, however occasionally share this information with each other. The last time this was shared was at the end of 2022/23, and the data showed that Cadent is leading the industry in optimising ASP levels. Based on the information shared, if Cadent increased the ASP in our networks to the average of the other GDNs our shrinkage would increase by around 8%, demonstrating that the headline incentive performance figures are not comparable.

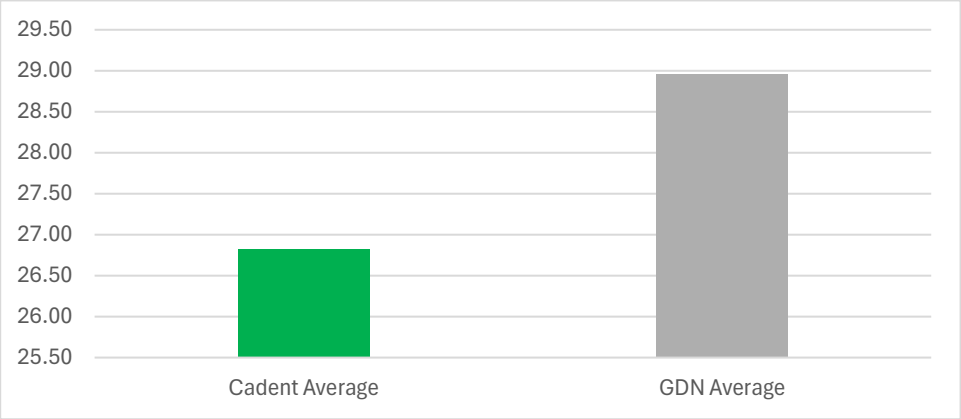


Figure 5.35: 2022/23 ASP – Cadent vs. Other GDNs

Mono-ethylene Glycol (MEG) Saturation

Within our networks we still have lengths of low pressure iron mains that have lead yarn joints. These joints can be treated using MEG, a wetting agent, which reduces the rate at which gas leaks from them.

We replace a proportion of lead yarn jointed pipes each year with plastic ones as part of our mains replacement programme. As such, each year the length of main

that requires MEG treatment reduces and likewise the benefits of the gas conditioning programme reduce.

The table below shows the GDN RIIO-2 baseline targets for MEG saturation, which were based on GDN-specific averages of 2017/18 to 2019/20 performance.

%	EN	LN	NW	WM	NGN	Sco	Sou	WWU
MEG Saturation	34%	36%	30%	41%	21%	22%	10%	0%

Table 5.36: MEG Saturation Baseline Target (2017-2020 average)

The incentive considers both MEG Saturation (%) and treated length (%), which includes all pipes in the given year which are eligible to be treated with MEG. To understand our performance, we can assess our MEG performance by comparing our Actual Leakage Volume (GWh) to our Gas Conditioning Baseline (GWh). If our Actual Leakage Volume falls below the Gas Conditioning Baseline, we are in the reward position against the incentive, and if it remains above the baseline we are in penalty.

In 2024/25 our overall MEG saturation decreased from 35.9% to 31.8% compared to 2023/24, and as a result of this our emissions increased by 1.6 GWh. However, we were still 2.9 GWh lower than the baseline.

EN and NW performed below the baseline and were in reward. While WM's MEG Saturation percentage was higher than its baseline target, the MEG treated length percentage meant we landed 2.38 GWh below the baseline and in the incentive position. Conversely, LN performed slightly above the baseline and in slight penalty against the overall financial incentive in 2024/25, however we plan to recover this by the end of the period.

	EN	LN	NW	WM	Cadent
MEG Saturation (%)	35.3%	27.3%	32.7%	33.1%	31.8%
GWh Baseline Difference	(0.26)	0.8	(2.38)	(1.05)	(2.9)

Table 5.37: MEG Saturation performance 2024/25

Improving Shrinkage management

The Shrinkage outputs in RIIO-2 use a modelled estimation of emissions from the Shrinkage and Leakage Model ('SLM') and has underpinned the delivery of significant environmental benefits. However, the leakage rates utilised are now over 20 years old, the SLM does not incorporate all GDN assets, and it only supports intervention decisions at a 'cohort' level.

We have led a Strategic Innovation Fund (SIF) project during RIIO-2 which seeks to develop a Digital Platform for Leakage Analytics (DPLA) which will see the industry move from utilising static rates applied at a cohort level on all network assets to more dynamic rates based on real-time data. This will enable networks to have greater control over their shrinkage management, allowing them to target more impactful interventions over and above mains replacement. The project is currently in the SIF-Beta stage and will become integrated as a BAU practice across the RIIO-3 period. Further detail can be found in the innovation chapter.

The DPLA forms part of our broader Advanced Leakage Management Approach (ALMA). This approach will will integrate the DPLA with Advanced Leakage Detection (ALD) technologies and an Advanced Leakage Intervention Programme (ALIP) to proactively target interventions on our leakiest assets. Further detail can be found in our RIIO-3 Business Plan.

Our commitment to proactively driving down our Shrinkage emissions was recognised in May 2025, with Cadent picking up the IGEM project of the year award for the Advanced Leak Reduction Transformation project.

Figure 5.38: IGEM Project of the Year

Zero emissions commercial fleet

Output performance summary

Output name		EN	LN	NW	WM
Zero emission commercial vehicles	PCD max	351	235	243	170
	Delivery period to date	201	115	94	99
EV charging points	PCD max	141	95	98	68
	Delivery period to date	143	56	83	53

In support of our ambition for decarbonisation and achieving our carbon neutral targets, we have been committed to converting our first responder vehicle fleet to electric or other zero emission equivalents (e.g. Hydrogen). Prior to RIIO-2 our commercial fleet was made up of mostly petrol or diesel vehicles which are more harmful to the environment due to the gases they emit during combustion.

The Commercial Fleet Price Control Deliverable ('PCD') provides funding to procure zero emission commercial vehicles and the installation of charging infrastructure. For Cadent we were provided funding to procure up to 999 vehicles and 402 charging points

We are extremely proud to be leading the sector in the decarbonisation of our Commercial Fleet, successfully delivering on our ambition to tackle climate change that we set out in our RIIO-2 Environmental Action Plan.

After careful consideration we adopted a leasing strategy to purchase zero emission commercial vans as this generates the most value to Cadent and our customers, allowing us to keep pace with the progressing zero emission vehicle technology in the market.

The impact of infrastructure scarcity in rural areas combined with lower-than-expected vehicle mileage ranges, means that achieving the PCD maximum within the price control is not currently logistically practical. Especially when weighed up against the duties that FCOs have, such as responding to an emergency gas escape within 1 hour.

In 2024/25 we have procured an additional 18 EVs, resulting in a total of 509 EVs procured over the RIIO-2 period to date, representing 51% of the PCD maximum. We also installed 5 EV charging points, resulting in a total of 335 charging points over the RIIO-2 period to date which represents 83% of the PCD maximum.

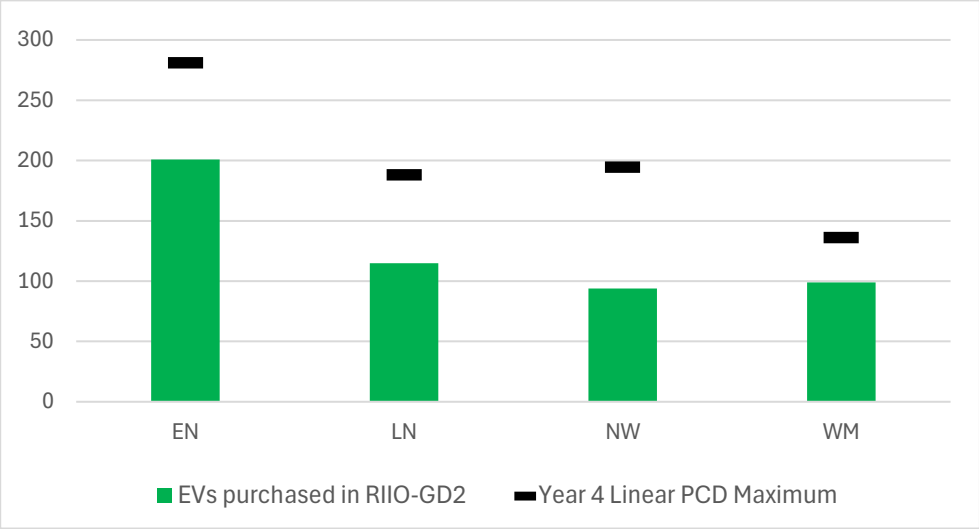


Figure 5.38: RIIO-2 Commercial EV Fleet purchased

	EV Charging Points installed in RIIO-GD2 to date	RIIO-GD2 PCD maximum	% installed vs. PCD maximum
EN	143	141	101%
LN	56	95	59%
NW	83	98	85%
WM	53	68	78%
Cadent	**335**	**402**	**83%**

Table 5.39: RIIO-2 EV Charging Points installed

Environmental Action Plan (EAP)

Output performance summary

Output name	Target	2024/25 Performance
Environmental Action Plan (EAP)	Deliver commitments in the EAP	On track
Annual Environmental Report	Publish in line with Licence Obligation	Delivered

As we maintain and upgrade our gas network in support of the UK's Net Zero target, we remain focused on targeting the subsequent environmental impacts, recognising any opportunities to enhance the environment.

It is imperative that we provide Customers and Stakeholders visibility of our commitments and progress, and as part of the RIIO-2 business plan, all GDNs developed an Environmental Action Plan (EAP).

We made 30 EAP commitments outlining our ambitions to decarbonise the business, operations, reduce our environmental impact, and facilitate a low-carbon future. We report progress each year via the Annual Environmental Report (AER), which is a Licence Obligation ('LO').

We continue to make great progress against our EAP commitments, with approximately 30% of actions completed by the end of Year 4 and the majority of applicable actions expected to be delivered by the end of the period. For a detailed breakdown of EAP commitment progress, please see the Annual Environmental Report.

Notably, in 2023, we received 'Sector leader' status from 'The Global Real Estate Sustainability Benchmark (GRESB)' for our ESG performance and scored 100/100, in an international ESG league table.

Business Carbon Footprint

Output performance summary

Output name	Target	2024/25 Performance
Business Carbon Footprint	BCF reduction as per EAP	On track

As part of our decarbonisation strategy, we aim to reduce our Greenhouse Gas emissions to Net Zero in line with the UK Government's ambition by 2050. We measure our Business Carbon Footprint in line with the Greenhouse Gas Protocol to monitor, review and reduce our emissions.

To support this, GDNs have a reputational output delivery incentive ('ODI-R') to reduce their Business Carbon Footprint (BCF). BCF is a measure of the total direct and indirect greenhouse gas emissions (in tonnes of CO2 equivalent) caused by the reporting company, categorised into scope 1, 2 and 3 emissions.

The reputational measure, which applies across the energy sector, includes scope 1 and 2 emissions, and excludes gas leakage. All GDNs are currently working to their own baseline targets, as agreed at the time of the RIIO-2 business plan. The targets are outlined in our EAP, along with our individual environmental commitments to achieve this.

In 2024/25 we reduced our Scope 1 and 2 emissions (excluding Shrinkage) by 8.6% compared to the previous year, which includes a 8.5% reduction in Scope 1 emissions and a 9.3% reduction in Scope 2 emissions. All Scope 1 emissions categories have seen a reduction, with the exception of own use gas which has increased by 3.1%.

Our Scope 3 emissions saw an increase of 12%, and while this remains an optional reporting category, we are committed to expanding our Scope 3 emission reporting to provide the greatest visibility of our emissions for stakeholders. This includes emissions from Air and Rail Travel, PE Pipe and Helicopter Aerial surveys which all increased. We also expanded our reporting to include Hotel Travel, which contributed 251 tCO2e to the total emissions. The increase in Scope 3 emissions led to an overall BCF (excluding Shrinkage) increase of 3.12%.

While the emissions target for 24/25 as quoted within our RIIO-2 business plan is 38,837, this target only includes: Own use gas, fleet and local delivery partner commercial vehicles, company cars and PE pipe. Our total BCF emissions (excluding Shrinkage) are 64,316 tCO2e. While this seems significantly higher, the measures are not directly comparable due to a number of changes since the targets were set, including the use of location-based emission factors for gas and electricity.

BCF (tCO2e)	23/24	24/25	% change
Scope 1 and 2 excl. shrinkage	27,180	24,849	-8.58%
Scope 1 and 2 incl. shrinkage	1,189,245	1,138,397	-4.28%
Scope 3	35,190	39,467	12.15%
BCF excl. shrinkage	62,370	64,316	3.12%
BCF incl. shrinkage	1,224,435	1,177,864	-3.8%
Emissions Target excl shrinkage (based on Business Plan)	42,683	38,837	-9%

Table 5.40: BCF performance

Serving industry, power and transport through Biomethane Connections

The Methane we transport through our network, is a potent greenhouse gas with a global warming potential 56x more than carbon dioxide over a two-year period. As an energy transporter across vital UK infrastructure, we recognise our obligation in promoting the transition to cleaner, lower carbon alternatives such as hydrogen and biomethane.

Biomethane is produced by fermenting organic matter, making use of feedstocks ranging from farm and animal waste to food and sewage waste, crops, and silage. The production and injection of biomethane into the gas grid offers a green and sustainable solution to waste management for industrial, commercial, and domestic users, while providing an additional green revenue stream. Expanding this across our networks will support our efforts to reduce methane emission rates by more than the UK's 30% target.

We have now connected 47 Anaerobic Digestion (AD) plants to our network. These 47 sites along with the expansion of an existing connection in East Midlands can deliver 4.04TWh of energy per annum and heat up to 351,000 homes at maximum installed capacity.

We received 141 biomethane connection enquiries during 2024/25, demonstrating the continued market growth potential for biomethane production in the UK. However, this is 25% lower than the number of enquiries received last year, which reflects the level of uncertainty within the industry, including the future of the Green Gas Support Scheme (GGSS) post 2028 and with the high capital cost of network reinforcement for entry to the network.

Currently, we have 3 projects scheduled for build in 2025/26 and a further 12 connection offers have been confirmed and are awaiting customer commencement.

We continue to work collaboratively with the anaerobic digestion industry and the GDNs through the 'Customer Entry Forum' and 'Technical Working Group', which are now facilitated by Future Energy Network (FEN) and will be refocused throughout 2025/26. The forum highlighted a significant barrier to wider biomethane adoption: the high cost of network reinforcement. Currently, the cost is recovered from the single "triggering" party, rendering many projects financial unviable.

Unlocking further network capacity remains a key priority for Cadent. We are actively developing network-specific mobilisation plans, incorporating data modelling and concept solution development to ensure cost-effective, timely, and deployable solutions.

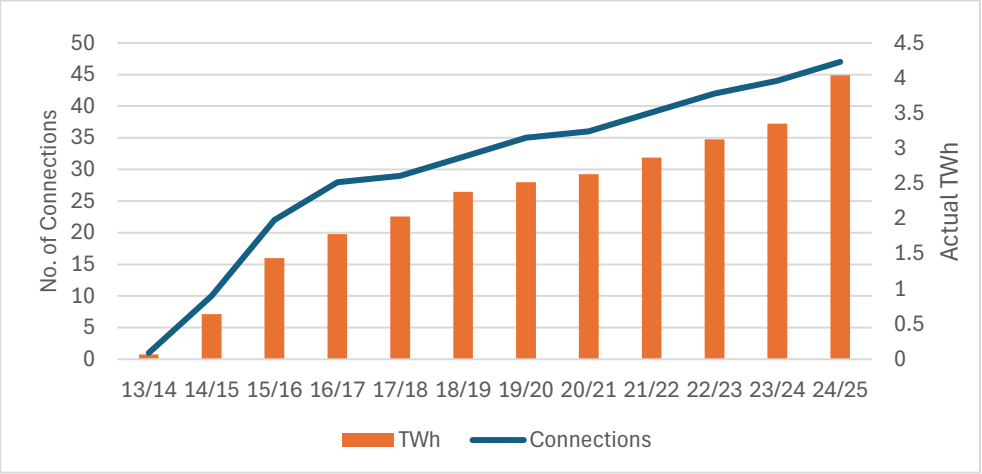


Figure 5.41: Growth of Biomethane connections

Hynet Front-End Engineering Design (FEED)

Output performance summary

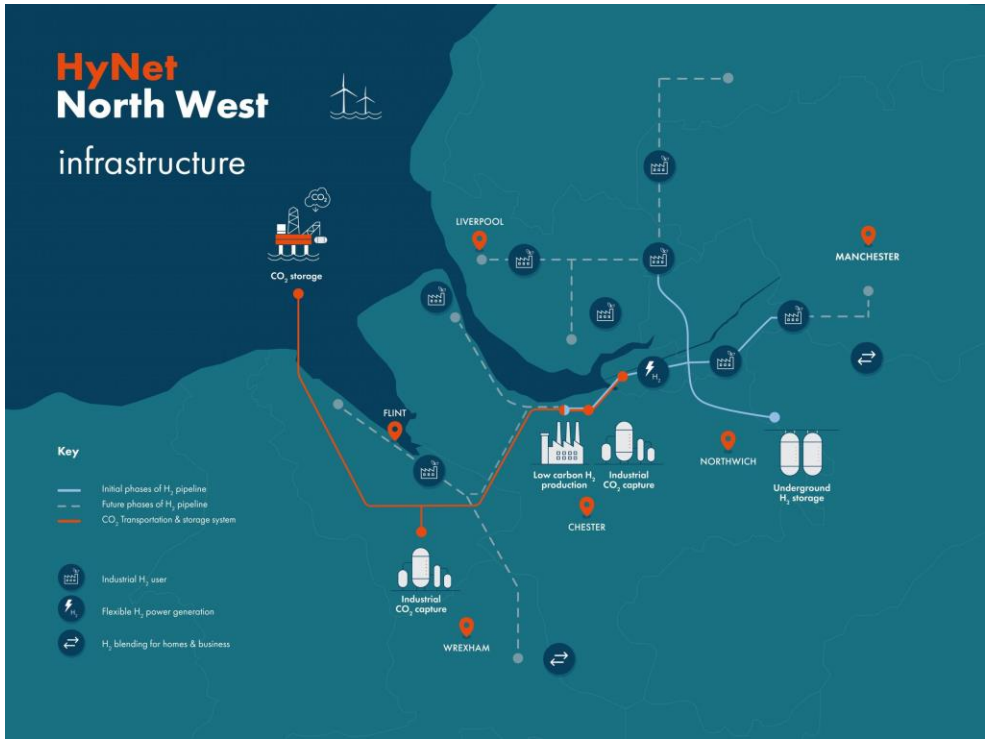
Output name	Target	2024/25 Performance
Hynet FEED	Deliver PCD outputs	Fully delivered

The RIIO-2 Final Determinations allowed £12.15m of funding for us to produce a Front-End Engineering Design (FEED) study for our HyNet 85km hydrogen pipe in the North West, under an evaluative Price Control Deliverable ('PCD'). This was intended to support the development of GB's first Hydrogen Industrial Cluster and we successfully completed this in December 2024.

We facilitated a first-of-a-kind hydrogen related FEED study aimed to generate useful knowledge around the use of hydrogen and the decarbonisation of industry. We also intended to provide detailed planning information to inform any future decision on whether to go forward with the building of the HyNet project.

In December 2024, we completed the final stage of the HyNet FEED PCD as outlined in our Gas Transporter Licence and submitted a final close out report to Ofgem. This included an independent audit, knowledge sharing evidence, and relevant, detailed, informational and evidence.

We have taken key learnings from the delivery of this project which will be fundamental in the development of future Hydrogen Development and large-scale industry decarbonisation projects, while also supporting the overall case for HyNet as it continues to evolve.



Trusted to act for our communities

Cadent Foundation

In 2019 Cadent's investors went beyond the company's regulatory obligations, to invest 1% of the company's post tax profits to set up the Cadent Foundation, which has been working with charities and partners to support vulnerable customers. The investors have continued to support the Foundation and it has evolved into a long term, strategic funder of vulnerable customers, focused on supporting households find sustainable solutions to fuel poverty and ensure people are safe and warm in their homes.

Fuel poverty continues to be a real issue in the market, affecting more people than ever before. Research from National Energy Action shows almost half (45%) of UK adults on a low incomes have struggled to pay for energy in the last year and 43% have eaten cold food to avoid using their ovens

It's statistics like these that drive our ambitions, projects and partnerships. With spiralling demand on the charitable sector, we wanted to do more, but in a way that ensures our funding is going to where it can help the most. With this in mind, we have maintained our mission to tackle the root causes of and impact of fuel poverty within our communities by finding sustainable solutions.

Our latest Impact Report details the funding we have awarded throughout 2024, totalling over £4.2million. Over the past year, our Cadent Foundation has supported over 32,000 people living in vulnerable situations and secured cost savings of over £1.9million in energy costs for families across the UK – through energy efficiency measures and advice. We helped over 9,500 homes become more energy efficient by carrying out over 11,000 energy efficiency measures such as draught proofing. Through our support and projects, over £600,000 of energy debt has been managed or written off and we have helped achieved over £7.7 million financial gains from income maximisation support for people.

We established our Winter Support Fund in November 2023, which aims to deliver an injection of much needed financial support through food and energy vouchers by rapidly distributing vouchers through the Cadent Foundation's charity partners. Since its inception, we have helped over 67,000 adults and children with over £4 million in funding to date. The fund is designed to make an immediate impact with each household receiving up to two vouchers. There's also an option to receive additional support, in the event of a no gas situation, with essential heating and low-energy-cost appliances, such as heated blankets, slow cookers, and air fryers.

We are continuing to introduce various partnerships through the Cadent Foundation. These include 'Groundworks Green Doctors' who are community- based energy advisors; 'Care City' which is a community led approach to tackling fuel poverty in Barking & Dagenham and 'Act on Energy' which is a new partnership focused on the correlation between a cold home and poor health. Following a successful pilot, we were awarded additional funds from our shareholders to extend our partnership with Citizens Advice for 2 more years and across 17 locations. This delivery model helps clients to overcome the fuel poverty challenge through their dedicated energy caseworkers, who are highly skilled to help reduce energy bills for consumers and enhance their income. For this initiative, we received the 'Special Project Award' at this year's Collaboration Networks Awards alongside Citizen's Advice.

The achievements of 2024 have impacted a large portion of our community and have made vital progress to helping people stay warm and well, but there's no time to stand still. Looking ahead, fuel poverty shows no signs of abating - and our work to reduce its impact on our most vulnerable households isn't slowing either.

Employee volunteering

A key highlight of a recent colleague survey was the pride so many of our colleagues feel working for Cadent. Many explained that a key factor in this was Cadent's role within communities, including how we allow individuals to contribute through fundraising and volunteering. Therefore, we have launched a new charity partnership with the Cadent Foundation for 2024/25, backed by a £120,000 support funding - the Cadent Foundation Community Fund, which divides their fund equally across six regions, supporting charities nominated and voted for by our Cadent colleagues as part of the 'Your Community, Your Choice' campaign. Our employees have shown a continued commitment to volunteering efforts, demonstrating true care and dedication to their chosen projects over the last twelve months. Through a range of employee engagement activities, our employees understand the contribution they can make and are actively encouraged to participate to the fullest extent they can.

Alongside fundraising and volunteering for their chosen charities, Cadent continues its partnership with Neighbourly and employees are encouraged to utilise their 2 paid days of volunteering each year with their chosen charities. This year, we totalled

over 1,276 days of activity giving back to our communities through volunteering, with teams across the business coming together to work in schools, on community projects and adding much needed support on their doorstep.

A diverse and inclusive workplace

We recognise that creating a fair and inclusive place to work where all our people feel they belong will ensure that we continue to provide great outcomes for our customers, stakeholders and the communities we serve over the remainder of RIIO-2 and into RIIO-3.

Our Equity, Diversity & Inclusion (ED&I) Steering Group sets our strategic direction, and the senior leaders who sit on the Steering Group sponsor and support our employee communities and our three ED&I working groups. Our working groups drive progress in three areas: anti-racism, inclusive leadership and fair and inclusive processes. These working groups aim to deliver real change and include members from all over our business and our communities, to ensure changes are positive for everyone.

We have several well-established employee communities covering gender, ethnicity and religion, disability, LGBTQ+ and military. Our new Men's Engagement Network and Grief Awareness have been fundamental in their first year in focusing on the important issues impacting men's physical and mental health and supporting colleagues dealing with grief.

A culture of continuous improvement regarding inclusion has seen our new-starter onboarding updated to ensure new colleagues are aware of our employee communities and our current employees encouraged to discuss ED&I within their teams.

Cadent's key achievements in ED&I in 2024/25

Shortlisted at IGEM Awards:

Both our Embrace community and our health and wellbeing team have been shortlisted by IGEM for their 'Investment in People Award'. Embrace for leading the first cross industry collaboration for Black History Month alongside NGN, SGN and WWU. Our wellbeing team for the implementation of employee wide 'health checks'.

Pride at Work are Sponsors:

Through Pride at Work's continued dedication and commitment to fostering inclusion and diversity, Cadent are proud to have sponsored the Gaydio Pride Awards 'Pride Network of the Year' award 2025.

Women in Cadent & M.E.N:

Alongside our Health & Wellbeing team, Women in Cadent and M.E.N have been instrumental in implementing a new employee benefit supporting fertility, women's health and men's health.

We are proud to be:

- Armed Forces Covenant Employers Recognition Scheme Gold Award
- Disability Confident Leader and Visibility Better Employer
- Lexxic Neurodiversity Smart Certified
- Menopause Friendly and Fertility Friendly Employer
- Bronze Race Equality Trailblazer

6. Innovation

We are committed to deploying and supporting innovation across our footprint in a way that provides the greatest outcomes for all gas consumers.

Our innovation projects support the UK's energy transition to net zero and support our customers in vulnerable situations. We currently have three allowances to be drawn upon from an innovation perspective including:

- The Strategic Innovation Fund (SIF)
- The Network Innovation Allowance (NIA)
- The Net Zero Development funds (as explored below).

We have outlined below the key areas and projects which have utilised these funding mechanisms to enforce innovation across our networks.

The Strategic Innovation Fund (SIF)

The Strategic Innovation Fund (SIF) is designed to drive the innovation required to equip the gas network for a low-carbon future. 2024/25 was the fourth year of Strategic Innovation Fund (SIF) under RIIO-GD2, and to date, we have spent £5.3m across the various stages of three projects; Digital Platform for Leakage Analytics (DPLA), Digital Inspector and EMStor (East Midland Hydrogen Storage). Over the last 12 months, we have invested £3.18m (£18/19) across the DPLA Beta phase, and the Discovery Phase of the EMStor project.

Digital Platform Leakage Analytics (DPLA)

Drastically reducing leakage across gas infrastructure is a global challenge that must be addressed to achieve the Global Methane Pledge and Net Zero targets by 2030 and 2050, respectively. Currently, GDN emission reporting requirements provide only static, modelled values of total gas leakage, not identifying actual leak locations or volumes. The DPLA is an innovative approach to utilise digital technology and data to provide an accurate view of leakage across our gas network. This is expected to enable efficient operational and investment decisions to reduce leakage, improve network safety and reduce customer bills.

As we approach the end of the Beta phase of the project, as lead partner, we continue to work collaboratively with Guidehouse, NGGT, SGN, NGN and WWU to ensure successful roll-out of the project. Whilst in the first instance the ambition of the DPLA was to address gas leakage, the use cases have now expanded into a non-mutually exclusive set of regulatory, operational, and business use cases.

As confirmed in the RIIO-GD3 Sector Specific Methodology Decision, the DPLA is set to be rolled out across all networks during the upcoming price control, with it being the first SIF Beta project set to be integrated into business-as-usual practices. We continue to influence the future regulatory and policy landscapes to allow for a smooth DPLA transition, where all networks can realise the notable benefits to Shrinkage and Leakage reduction.

EMStor (East Midlands Hydrogen Storage)

To enable energy network optimisation and provide system flexibility, we recognised the importance of understanding the business models and technical designs required for long-term hydrogen storage.

The project focuses on assessing the feasibility of storing hydrogen in old hydrocarbon fields in the East Midlands. The Discovery Phase of the project identified the hydrocarbon fields as the best option for hydrogen storage due to their size, location, development time, and readiness levels. They are also nearing the end of their productive life, making them suitable for repurposing to help achieve net-zero emissions.

This is the first project in the UK to assess the feasibility of storing hydrogen in onshore hydrocarbon fields. The key learnings from the project will be extremely valuable in developing the future case for hydrogen production and storage.

Network Innovation Allowance (NIA)

The Network Innovation Allowance (NIA) is intended to fund projects with the intention of supporting both customers in vulnerable situations and the Whole Energy System Transition. 2024/25 was the fourth year of Network Innovation Allowance (NIA) funding under RIIO-GD2, and over the last 12 months we have invested £3.4 million through 36 projects.

We have 13 NIA projects which support customers living in vulnerable situations that are due to be completed by the end of the period. Below outlines some examples of the work we are currently delivering.

Easy Assist Remote Actuation - NIA_CAD0085

The project follows on from the EasyAssist™ Emergency Control Valve (ECV) project, which enabled customers to press a button to close the ECV rather than turn the handle. The Remote Actuation project builds on this, allowing gas meters in inaccessible locations to be isolated by installing a push button attached to a cable.

The project commenced in November 2022, and we went on to complete the Alpha phase of the project in 2023, which involved building Alphas units and testing them for activities such as thermal triggering, leak tightness, button trigger force and button trigger endurance. In January 2024, the Beta stage commenced, and in the early stages, it was established that the initial distance (2m) would not be possible and instead a 1m distance would be optimal and suitable.

The Beta phase has now been completed, and prototypes have been produced to enable field trials to commence. We are due to start training our engineers on the installation of the products and aim to have these trials completed and the project closed by September 2025.

Homeshield - NIA_CAD0095

Collaborating with other Gas Distribution Networks and UIS Technologies Ltd, we are working on the development of a retrofitted alarm, that will support those who are unable to respond to a standard audible alarm, or who may lack the understanding and/or ability to process the purpose of the audible alarm.

Homeshield will have the capability to detect an alarm sound within a property and communicate to the occupier and a 'key contact' via a text message. The concept has been well received by stakeholders who support the hearing impaired and advocate for those who may find independent living a challenge. Their input has been fundamental when manufacturing prototype devices, which are currently being tested against their success criteria.

We aim to have this project completed by autumn 2025.

Supporting the transition to Net Zero

Over the course of the year, we have funded 24 projects under the NIA allowance in support of the whole system net zero transition. Cadent have led on 14 of these projects, with the remaining being collaborative efforts with the other GDNs.

As the lead of the End User Safety Evidence (EUSE) Working Group, focused on 100% Hydrogen End User Safety, we have been working collaboratively with involved industry Stakeholders to drive forward the programme of work. When initiated in 2022/23, the programme originally consisted of 10 research projects, funded under NIA, focusing on hydrogen applications downstream of the ECV.

Since the programme's initiation, a further six projects were added to the programme in response to early learnings, ensuring that the HSE could be presented with the evidence required to inform their Comprehensive Formal Assessment (CFA) of 100% hydrogen heating, which will impact the Heat Policy decision expected in 2026.

In the past year, we have completed the majority of the initial projects on the programme, with the focus on delivering any new or longer-running projects to HSE in time for their CFA deadline.

Some of the key projects Cadent have led on under this programme include:

- Dispersion of Helium Releases in Domestic Properties (NIA_CAD0097)
- Air (Oxygen) Ingress in Isolated Installations (NIA_CAD0108)
- IGEM Downstream Hydrogen Standards Development (NIA_CAD0101)
- Great Britain Hydrogen Distribution QRA (NIA_CAD0096)
- Hydrogen Blending National Safety Evidence Review (NIA_CAD0104)
- Hydrogen Blending Implementation Plan (NIA_CAD0102)
- International Gathering Evidence (NIA_CAD0105)
- Strategic Education Roadmap (NIA_CAD0107)
- Hydrogen Environment Testing of Girth Welds – (NIA_CAD0103)
- Customer Demand Profiling for Hydrogen Networks – (NIA_CAD0099)
- Effect of 100% Hydrogen on Cast Iron Assets – (NIA_CAD0094)

Further details of NIA projects can be found in our RIIO-GD2 Year 4 Innovation Report (which will be published at the end of July)

Net Zero Development Allowances

In RIIO-2, Ofgem have included three funding provisions to support net zero activities; the net zero pre-construction works and small net zero projects (NZASP) re-opener, the net zero and re-opener development fund use-it-or-lose-it allowance (UIOLI) and the net zero re-opener. The allowances provide funding to deliver projects which sit outside of NIA funding, yet work towards providing low-carbon, environmental benefits to customers. In 2024/25, we have accessed one of these three funds, the UIOLI allowance.

Net Zero and re-opener development (UIOLI)

Over the 2024/25 period, we have invested £4.31m through the re-opener development UIOLI fund, and to date, we have utilised over £13m of our £19m allowance across RIIO-GD2. The increased focus on spend against this allowance is a testament to the increasing number of projects which work to develop and lead the transition to a low carbon future.

23 projects have utilised the UIOLI allowance over the 2024/25 period, which includes projects focused on HyNet development, East Coast Hydrogen, the NESO Regional Hydrogen Forecasting and Future Energy Scenario Modelling.

Hydrogen Regional Vision NW and NE (NZNW0003 and NZEA0012)

As we invest in converting the gas network to meet future hydrogen demand we need to clearly articulate what the regional roll out of hydrogen (and its enabling infrastructure) will look like across different sectors. This must be done in increments between 2030-2050 and demonstrate the benefits this could bring to consumers and the regions as a whole.

Consumers also want to understand when hydrogen might be coming to them, and the vision project helps to articulate how this could happen. It paints a picture of how the economy will be built in our regions and the associated benefits to consumers. The work demonstrates the growth of a place-based hydrogen economy in the North West and the Humber and East Midlands.

NESO regional hydrogen forecasting (NZCF0023)

With 95% of industrial energy demand sitting outside of the main industrial clusters, this project has worked to identify where industries outside of the main clusters have a need for Hydrogen. In turn, this helps to determine future opportunities, including: the prioritisation of the next phases of existing hydrogen pipeline projects, creation of new hydrogen pipeline projects, or quick wins in the form of point-to-point private pipelines.

We continue to engage the largest industrial gas users to understand their decarbonisation plans and where their appetite for Hydrogen exists, requesting hydrogen demand forecasts from these key stakeholders. This hydrogen demand data will be shared with DESNZ and NESO to support their over-arching and co-ordinated hydrogen network planning.