



Annual Environmental Report 2024/25

A responsible company
preparing for a net zero future



Welcome to our Annual Environmental Report 2024/25

We have prepared this report in accordance with the RIIO-GD2 Environmental Reporting Guidance provided by Ofgem. It includes data for the reporting period 1 April 2024 to 31 March 2025.

RIIO-GD2 is a five-year price control period, set by our regulator Ofgem. We are publishing this report as part of our licence obligations for the RIIO-GD2 price control, which runs from April 2021 to March 2026.



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The production of the report is an Ofgem licence obligation and covers Southern Gas Networks and Scotland Gas Networks, collectively called SGN.

To stay up to date on our latest news please go to:

 www.sgn.co.uk/news

 linkedin.com/company/sgn

 facebook.com/sgngas

 [@SGNgas](https://twitter.com/SGNgas)



Overview

SGN's vision is to play our part in a fair and affordable energy transition. We have a robust environmental strategy to help us deliver that vision



Who we are

SGN own one of the largest and most innovative gas distribution networks in the UK.

Gas flows into our network from the high-pressure National Transmission System operated by National Gas, and directly from an increasing number of biomethane plants. We reduce the pressure as gas travels through our underground pipes to heat and power over six million domestic, industrial and commercial properties.

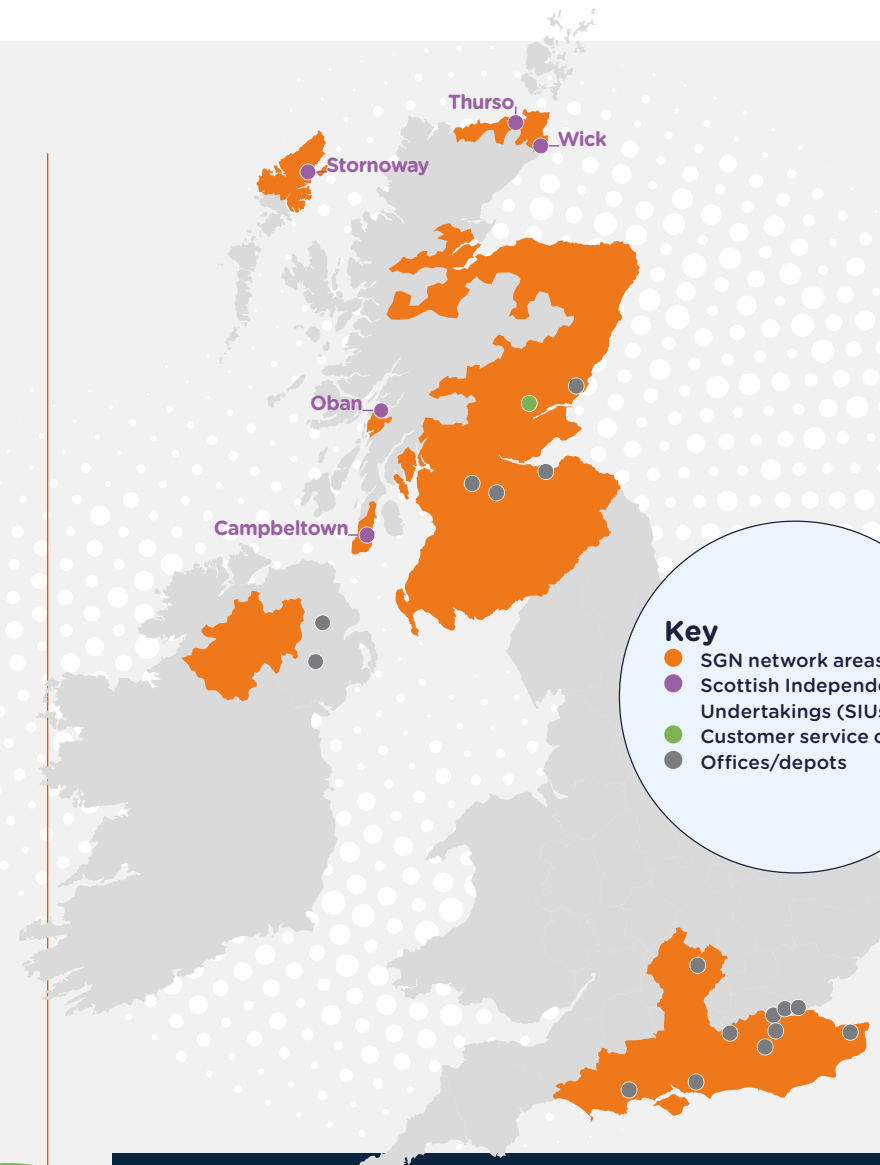
Our network may be largely invisible, but our 4,600-strong workforce ensures the UK's energy security is maintained and we provide lasting value for all our customers.

What we do

Our company manages 74,000km of pipe, day and night, to ensure natural and green gas is safely and efficiently delivered to our customers.

Our purpose

Serving our communities by keeping everyone safe and warm.

Our values**Operations throughout the UK****Scotland**

Our network distributes gas across Scotland to 75% of households including in remote areas operated by our Scottish Independent Undertakings (SIUs).

Southern England

We distribute gas to 4.15 million homes in south and south-east England.

Northern Ireland

Nine towns are connected to our network in the west of Northern Ireland.

SGN manage three gas network areas across the UK, safely distributing gas to over six million customers.

The diverse geographical attributes, plus different political and legal requirements, create variations in how we deliver daily in each region.

While the SGN Group owns gas networks across Scotland, southern England and Northern Ireland, this report relates to our regulated businesses operating in Scotland and the south of England.

The SGN brand portfolio

As our business expands, so does our portfolio under both our regulated and non-regulated activities.

Regulated business

Our regulated businesses form the core of our activities in providing a safe and secure supply of gas to our customers throughout our three gas networks.

**Non-regulated business**

Beyond our regulated operations, we engage in complementary business ventures, leveraging expertise and diversifying the Group's portfolio.





Driving progress towards net zero

Gas networks are essential to the UK's energy infrastructure, playing a vital role today and into the future. We recognise the significant potential for gas to support a low-carbon energy system, particularly through integration of hydrogen and biomethane. As such, we see the gas network as a key enabler of the UK's net zero ambitions.

Over the past year, we've made meaningful progress in decarbonising our operations, including advances in our flagship hydrogen initiatives and our ongoing efforts to increase the role of biomethane across our network.

Cutting operational emissions

This report outlines our environmental achievements and challenges from 2024/25, with a focus on progress against our Environment Action Plan to reduce emissions from both our operations and assets.

Our most significant operational environmental impact remains the leakage of natural gas into the atmosphere. Our mains replacement programme continues to be our most effective

intervention, and in 2024/25 we replaced 1,012km of old metal mains with new polyethylene (PE) pipework to reduce leakage. We also advanced innovative solutions such as the use of drawdown compressors, which capture and reuse gas during pipeline decommissioning activities.

However, we also experienced two significant gas escapes in our Southern network in 2024/25. As a result, our Scope 1 and 2 carbon emissions increased by 3% over the reporting period.

Adapting to climate change

The effects of climate change, including more frequent and severe flooding, droughts and extreme heat, are increasingly affecting our network. One of the clearest examples is the rising number of pipeline washouts, which threaten the security of gas supply.

This year, we saw the number of washouts increase from 12 to 31, illustrating the growing impact of climate-related hazards on our infrastructure.

We remain committed to assessing and responding to these risks. For the third consecutive year, we have reported against

"We've made meaningful progress in decarbonising our operations, including our ongoing efforts to increase the role of biomethane across our network."

the Task Force on Climate-related Financial Disclosures (TCFD) framework, which guides our approach to managing climate-related risks and opportunities. You can find our latest TCFD disclosures in the SGN Annual Report.

Jeffrey Rosenthal

Chair, Stakeholder, Environmental, Social and Governance (SESG) Committee



As a gas distribution network, we recognise the crucial role we play in enabling a just transition to a net zero energy system.

This year's report highlights the significant steps we have taken to strengthen climate resilience, embed sustainability across our operations, and continue delivering our mains replacement programme, which is a key driver of long-term emissions reduction.

We have continued to deliver on key projects such as H100 Fife and increased our investment in connecting biomethane to our system, supporting the decarbonisation of our networks.

We know there is more to do, but our direction is clear. We remain fully committed to working with government, regulators and industry to build a cleaner, more resilient energy future.

Simon Kilonback

Chief Executive Officer, SGN

Our Environment Advisory Panel provides challenge, insight into best practice and acts as a critical friend to support the delivery of our Environment Strategy

A letter from the SGN Environment Advisory Panel

September 2025

The SGN Environment Advisory Panel (EAP) was established in February 2021 and comprises five external environment and sustainability experts, supported by key SGN staff. The purpose of the EAP is to provide robust and constructive challenge as a critical friend and to bring external perspectives and relationships. The panel had three meetings this year and has reviewed the Annual Environmental Report. The discussions during these meetings are wide-ranging, with the SGN team being open and ready to listen to the expertise provided through the group.

SGN has asked the EAP to provide this statement for inclusion in the Annual Environmental Report, reflecting observations of the panel members.

The EAP has seen that SGN is seeking to develop and roll out innovations that will positively impact environmental performance. Examples include advanced systems for improved leak detection and developing the infrastructure to enable the transport of lower-carbon gas. Along with ensuring the mains replacement programme meets its targets, these will be the most significant actions towards achieving SGN's net zero targets, and are therefore critical.

Key to innovation is collaboration and partnership, and there have been some great examples of this by SGN, such as the hydrogen Local Transmission System demonstration project in partnership with INEOS. Members of the EAP would encourage SGN to continually look for opportunities to engage with suppliers, research partners, other GDNs and wider society to realise opportunities and innovation across all aspects of the environmental agenda.

Aside from achieving net zero, discussions during our meetings have highlighted other interlinked impact areas across the environmental agenda. These include:

- **Setting more challenging targets and actions for biodiversity:** The Panel acknowledges the work

already done by SGN in establishing biodiversity baseline surveys, but would encourage more ambitious targets in this area. The UK has a major challenge with biodiversity loss, but also has opportunities to develop nature-based solutions to address climate resilience. SGN should consider its role both on land it owns, but also through partnerships, in restoring wildlife-rich habitats, increasing species abundance and protecting species at risk of being lost, adopting a systems-thinking approach that reflects the interconnectedness of climate and sustainability issues.

- **Reducing resource use supporting a more circular economy:** SGN has had waste reduction and recycling targets for several years, but the focus across the business on achieving them has been mixed. Enabling greater circularity of resources such as aggregate, spoil and PE pipe, as well as other depot waste, will require culture change, improved project information and management metrics, engagement with key stakeholders and many other factors, as well as considering economic drivers. Waste prevention should be core to any drive towards increasing circularity.

Thinking forward to the GD3 price control, in addition to the above, the EAP looks forward to seeing progress on the work already started in considering climate change adaptation for SGN. Seeing the costs and challenges of climate adaptation needed over the coming years for SGN surely focuses the mind on why the drive towards carbon reduction and net zero is so important for SGN, its stakeholders and indeed the planet. The EAP members look forward to continuing to be a part of SGN's environmental improvement journey throughout 2025 and 2026.



Alan Hendry

Technical Director Sustainability, Mott MacDonald;
Member of the SGN Environment Advisory Panel



Anna Graham

Head of Environment, Science & Innovation at The Scottish Whisky Association



Alan Hendry

Technical Director Sustainability, Mott MacDonald



Maxine Frerk

Chair of SGN's Independent Stakeholder Group



Roddy Yarr

Director of Sustainability, University of Glasgow



Stephen Farrant

Independent Director, Advisor and Sustainable Business Consultant

Our Environment Strategy sets out how we'll deliver on our commitment to reaching net zero carbon emissions across our networks by 2045. This includes our direct carbon emissions in Scope 1, our indirect carbon emissions in Scope 2, and our Scope 3 carbon emissions from our supply chain

Informed by the United Nations' Sustainable Development Goals (SDGs), the Environment Strategy guides our efforts to decarbonise the energy system, cut the carbon footprint of our operations, and strengthen the resilience of our networks in the face of a changing climate.

It's built around five core pillars that reflect our long-term environmental priorities:

1. Achieve net zero business carbon emissions (Scope 1, 2 and 3).
2. Engage in meaningful supplier partnerships.
3. Drive towards a circular economy transition.
4. Protect and enhance biodiversity.
5. Support the introduction of greener fuels like biomethane and hydrogen.

The SDGs help us communicate our purpose and impact in a global context. We've identified six of these goals as particularly relevant to our business and stakeholders, and we've adopted them as our priority SDGs.

Throughout this year's report, we'll highlight how our work aligns with these six goals — beginning with how we're supporting decarbonisation of the energy network and extending to our role in protecting and improving the local environment.

7 AFFORDABLE AND CLEAN ENERGY



SGN focus Contribution to energy system decarbonisation

Central heating accounts for up to a third of the UK's carbon emissions. Tackling this is essential to meeting net zero targets.

We're exploring low-carbon alternatives to natural gas, like biomethane and hydrogen, to heat homes safely while addressing the climate emergency. Biomethane is carbon neutral as it comes from organic sources; hydrogen produces no carbon emissions.

See pages 17–21 for more details.

8 DECENT WORK AND ECONOMIC GROWTH



SGN focus Sustainable procurement

Over 70% of our carbon footprint (excluding shrinkage) is attributed to our suppliers. As part of our overall net zero journey, it is vital to engage with our supply chain to implement sustainable practices that

will help reduce our carbon footprint.

We've committed to ensuring that at least 80% of our supply chain (by spend) meet our new Sustainable Procurement Code by 2026.

See page 28 for more details.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



SGN focus Innovating for decarbonisation and to protect the environment

The decarbonisation challenge involves the development of new energy carriers, improving energy efficiency, achieving net zero

emissions and creating new markets for carbon and other by-products as part of an increasingly circular economy.

To meet this challenge, we require innovation.

See pages 22 and 26–27 for more details.

11 SUSTAINABLE CITIES AND COMMUNITIES



SGN focus Local environment

By improving or restoring the environmental quality and biodiversity of sites we own and manage, as well as other locations within our network areas, we can have a profound positive impact on the quality of life and

wellbeing of our colleagues and our communities.

We are also committed to making our network more resilient to climate change and maintaining our track record of no significant reportable environmental incidents.

See pages 30–33 for more details.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



SGN focus Efficient resource use and circular economy

The objective of the circular economy is to do more with less. This is achieved through preventing waste and unnecessary resource use in the first place, using sustainable resources, such as secondary raw materials,

and prolonging the life of products through reuse, repair, refurbishment and remanufacturing.

When all these options are exhausted, and products or materials reach their end of life, then the materials should be recycled.

See page 29 for more details.

13 CLIMATE ACTION



SGN focus Climate change mitigation

We have set an ambitious target of reaching net zero emissions across both our networks by 2045, in line with the more ambitious Scottish Government target.

This target encompasses our direct carbon emissions including leakage from our network (Scope 1), energy that we purchase from others (Scope 2) and indirect carbon emissions from our value chain (Scope 3).

See pages 23–25 for more details.





“As a gas network operator, we recognise the environmental footprint of our activities and take this responsibility seriously. Our Environmental Action Plan outlines the proactive steps we’re taking to reduce our carbon emissions and environmental impact, manage challenges, and help build a more sustainable future for the communities we serve.”

Carolina Karlstrom
Head of Sustainability, SGN

Our Environment and Sustainability Policy

From our Environment Strategy comes our Environmental Policy, which can be found [here](#). This reflects our ongoing commitment to preventing pollution from our activities and building a sustainable, environmentally responsible business with a net zero impact. As part of our company-wide Safety Management Framework, we maintain an Environmental Management System (EMS) to help us identify, assess and manage environmental risks effectively.

Our EMS has been certified to the international ISO 14001:2015 standard since SGN was established in 2005 – an achievement we’re proud to have upheld for nearly two decades. A core principle of the ISO framework is continuous improvement, which we’ve embraced as a driver for ongoing progress in our environmental performance.

Measuring our carbon emissions

We use the Greenhouse Gas Protocol – the globally recognised standard for greenhouse gas accounting – to measure our carbon emissions. It categorises emissions into three Scopes, which we reference throughout this report:

- **Scope 1** – direct carbon emissions from our own sources, including gas shrinkage and combustion of fuel in our vehicles and heating systems.
- **Scope 2** – indirect carbon emissions from the generation of energy we purchase.
- **Scope 3** – all other indirect carbon emissions across our value chain, including those from goods and services we procure.

Environmental, Social and Governance (ESG) reporting

To reinforce our transparency and demonstrate progress on key ESG issues, we’ve once again included voluntary ESG reporting in our SGN Annual Report – now for the fourth consecutive year.

Our disclosures follow the World Economic Forum’s Stakeholder Capitalism Metrics framework. This globally recognised structure brings together elements from multiple established standards and enables us to measure our performance against ESG indicators, while aligning our efforts with the UN Sustainable Development Goals (SDGs).

As extreme weather events become more frequent and severe, we continue to see the physical impacts of climate change on our infrastructure.

We remain committed to understanding the impacts of climate change on SGN, sharing how we are managing our climate-related risks and opportunities, and addressing the effects of climate change on our business. For the third year running, we’ve used the Task Force on Climate-Related Financial Disclosures (TCFD) framework to report on climate-related risks and opportunities.

Benchmarking our performance

We’ve been disclosing our environmental performance through CDP, the leading global environmental reporting platform, for the past nine years.

While not a regulatory requirement, we choose to report through CDP to meet stakeholder expectations, better understand potential environmental risks and opportunities, and benchmark our progress against industry peers.

SGN is one of over 24,000 companies assessed by CDP across four consecutive levels, which represent the steps a company moves through as it progresses towards environmental stewardship.

In 2024, SGN received a climate change score of B (Management level) from CDP, a result that places us above the sector average of C for oil and gas storage and transportation companies.

It demonstrates our commitment to managing our environmental impacts and taking strategic action on climate change.



“The gas network will be providing a resilient, reliable source of energy to industry, businesses and our homes for many decades to come. As we incrementally decarbonise the gas we carry with green gases such as biomethane and hydrogen, it’s important we prepare the engineers of today for the skills they will require tomorrow.”

Antony Green

Chief Strategy and Regulation Officer,
SGN

Key 2024/25 highlights

Reducing our business carbon footprint and helping our customers reduce their emissions

We’re continuing to reduce our business carbon footprint in line with our RII0-GD2 reduction target. This footprint includes our Scope 1 and 2 carbon emissions, excluding shrinkage, and we’re aiming for a 25% reduction by 2026. Since our baseline year in 2019, we’ve already reduced our footprint by 23%. You can read more about how we are decarbonising our operations on pages 17-19.

So far in RII0-GD2, we have worked with our partners to deliver over 160,000 personalised energy efficiency sessions to vulnerable households, helping them use energy safely, efficiently and affordably. Read more about our work with vulnerable customers in our latest [Vulnerability and Carbon Monoxide Allowance Report](#).

Improving and protecting biodiversity

We are particularly proud of the improvements we have made as part of our

biodiversity programme. Since 2021/22, we have invested over £500,000 in schemes to enhance our local environments. In 2024/25, we completed improvement projects at 12 sites across our network, bringing the total number of improvement projects to 31. You can read more on pages 30-32.

Through our company Community Action Programme (CAP), employees can use a day of company time each year to volunteer and help an organisation or charity of their choice. Our amazing colleagues were busy over the last year volunteering their time and expertise to support environmental projects aimed at improving biodiversity and nature in our local communities.

H100 Fife is our groundbreaking flagship hydrogen-to-homes demonstration

Read more about some of our volunteering projects below.

Preparing to deliver a decarbonised gas network

Our H100 Fife project will bring 100% renewable hydrogen into Fife homes in 2025, providing zero-carbon fuel for heating and cooking. In 2024/25, we completed the new hydrogen distribution network and opened the demonstration homes where customers can see hydrogen appliances in use.

We have partnered with Fife College to develop the UK’s first hydrogen training facility, which will open in 2025. The facility will be based in Fife College’s Levenmouth Campus and will create a new net zero workforce in Fife by upskilling over 200 existing Gas Safe registered engineers to work with hydrogen gas. Engineers who receive this training will work on H100 Fife.



[Shoreham community special school’s outdoor space transformed by gas network volunteers](#)



[Our volunteers make waves clearing rubbish from Worthing beach](#)



[SGN team helps refresh Cyrenians’ community garden in Kirknewton](#)



Dashboard indicators

A quick look at our environmental performance through some key facts and figures



Environmental impact and KPI	2024/25 performance
Contribution to energy system decarbonisation	
Biomethane Annual addition of low-carbon and renewable energy connected to the network	11,681,026 scm/h
Equivalent customers able to receive biomethane	44,507
Innovating for decarbonisation and to protect the environment	
Innovation investment Annual investment in ongoing innovation activities that are primarily supporting decarbonisation and/or protecting the environment	£63.5m
Climate change mitigation	
Carbon footprint excluding shrinkage Annual reduction in business carbon footprint excluding shrinkage	17,852 tCO₂e 2% reduction
Carbon footprint excluding shrinkage Annual change in business carbon footprint excluding shrinkage in comparison to the end of RIIO-GD2 target of 17,395 tCO ₂ e	2.4% increase
Shrinkage emissions reduction Annual reduction in total shrinkage	692,653 tCO₂e 3% increase See page 23 for further details on shrinkage
Sustainable procurement	
Suppliers meeting Sustainable Procurement Code Proportion of suppliers meeting the environmental supplier code or equivalent	See page 28 for update on sustainable procurement

Environmental impact and KPI	2024/25 performance
Efficient resource use and circular economy	
Total waste produced Annual total waste (office, network, depots, construction)	352,030 tonnes
Waste Office and depot waste - recycled Office and depot waste - landfill Office and depot waste - Energy from Waste (EfW) Office and depot waste - anaerobic digestion	54% / 956 tonnes 13% / 226 tonnes 31% / 551 tonnes 2% / 36 tonnes
Spoil waste - recycled Spoil waste - landfill	87% / 299,833 tonnes 13% / 46,541 tonnes
Local environment	
Investment in local environment Annual investment in schemes to enhance or restore local environmental quality	£220,659
Area with biodiversity improvement Land area being treated in schemes to enhance or restore local environmental quality	145,873 m²
Biodiversity studies Number of biodiversity baseline studies carried out at our sites	0 All biodiversity baseline studies complete
Biodiversity improvement Number of biodiversity projects carried out across our network areas	12
Biodiversity improvement Net change in biodiversity units from network development projects granted planning consent in the year that impacted the local environment	Figures not yet available
Environmental incidents Number of reportable environmental incidents with a risk of land or water pollution	1



Environmental commitments and impacts

We're committed to improving our environmental impacts and making our business more sustainable. We have a variety of initiatives already under way to make this a reality



- Progress against milestones is at significant risk and highly likely to be missed
- Progress is delayed but likely to be achievable before the end of the price control period
- Progress against the implementation milestones is on track

Initiative	Description	Target year	Implementation milestones	Progress	Status update
Climate change mitigation – reducing business carbon footprint					
Reduce emissions from company car business travel to reduce Scope 1 carbon emissions	Encourage the uptake of hybrid and zero-emissions company cars, and reduce the allowance of gCO ₂ e/km for eligible company cars	2025/26	Maximum allowance of 95gCO ₂ /km average across company car fleet by 2026	●	Following the improvements achieved last year, we have further reduced our average carbon emissions from 44.2gCO ₂ /km to 40.0gCO ₂ /km, well below the implementation milestone of 95gCO ₂ /km average. This continued reduction reflects our commitment to lower-emission travel across the business. Our salary-sacrifice employee car scheme follows a similar approach to the company car scheme, with an upper limit on CO ₂ emissions to help support our sustainability goals.
Transition to a zero-emissions operational fleet to reduce Scope 1 carbon emissions	Transition our commercial fleet to 50% zero-emissions vehicles, where possible	2025/26	New electric vehicles (EV) vans planned to be added to our fleet: 2025/26: 30	●	Our commitment is to transition our commercial fleet to 50% zero-emissions vehicles, where possible. To date, we have added 25 small EV vans (in 2021/22) and will add a further 30 in 2025/26, bringing our zero-emissions fleet to 55 vehicles. Progress towards the 50% target has been slower than anticipated, primarily due to limitations with 3.5t Battery Electric Vehicle (BEV) vans around payload, range and charging infrastructure – key factors for our 24/7 emergency response service. To address this, we are working with suppliers to plan a larger trial of around 50 operationally capable 3.5t BEV vans. While the timing of this trial is still being finalised, it will provide critical insight into how we can scale up the transition and progress towards meeting this initiative.
Install charging infrastructure to support a zero-emissions operational fleet to reduce Scope 1 carbon emissions	Install 355 EV charging points at our depots and offices	2025/26	Implementation milestones to be reviewed in 2025/26	●	Regional boundary changes have influenced our strategy for locating charging infrastructure within our Southern network. While plans remain in place, assessments across multiple depots have identified the need for substantial power supply upgrades, with costs and timelines still uncertain. As a result, the installation of all 355 charging points is now expected to continue into the GD3 period, as we refine our approach to meet these evolving requirements.
Energy efficiency improvements to reduce Scope 2 location-based carbon emissions	1. Install building management systems at our large and medium-sized sites 2. Install LED lighting 3. Net zero mapping of our property portfolio	2025/26	Install LEDs at a further six sites in 2025/26	●	We installed LEDs at three of our sites during 2024/25. We are looking to build on this in the upcoming financial year, with the aim to install LEDs at six more sites.

- Progress against milestones is at significant risk and highly likely to be missed
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Initiative	Description	Target year	Implementation milestones	Progress	Status update
Climate change mitigation – reducing business carbon footprint (continued)					
Renewable energy on selected occupied sites to reduce Scope 2 location-based carbon emissions	Install direct-feed solar PV	2025/26	Install solar PV at three sites in 2025/26	●	We were unable to install any solar PV at our depots and offices in 2024/25. We are aiming to install solar PV at three of our sites in 2025/26.
Climate change mitigation – reducing carbon of products, projects and services					
Identify tools and methodology for measuring embodied carbon to reduce Scope 3 carbon emissions	Measure and eventually manage the embodied carbon of key projects (with a value of >£20m), products and materials	2025/26	Measure embodied carbon of key products and materials by spend	●	We continue to capture data relating to our PE pipe and reinstatement materials and aim to expand this to other key products and materials by the end of R10-GD2. In 2024/25, the embodied carbon associated with purchased PE pipe was 15,221 tCO ₂ e and the embodied carbon associated with reinstatement materials was 5,815 tCO ₂ e.
		2025/26	Work collaboratively with industry and stakeholders to develop tools for measuring embodied carbon and share best practice	●	We continue to participate in the Transport for London (TfL) and HAUC(UK) Road to Net Zero project. We are part of a steering group helping to inform and test a universal carbon tool for street works emissions. We're part of the Energy Networks Association (ENA) Gas Environment Group. This is a collaborative forum for the gas networks.
		2025/26	Gather embodied carbon data for projects valued over £20m	N/A	We have established a threshold for embodied carbon reporting where data collection is required only for projects valued over £20m, which Ofgem have agreed with. As we did not have any projects exceeding this threshold during the 2024/25 financial year, no embodied carbon data was gathered. Additionally, our plans to construct a new head office in Horley were not progressed due to external factors outside of our control.

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- Progress against the implementation milestones is on track

Initiative	Description	Target year	Implementation milestones	Progress	Status update
Sustainable procurement					
Target 80% of suppliers (by spend) to meet the Sustainable Procurement Code	Engage with our supply chain to improve and apply best practice	2025/26	Issue revised Sustainable Procurement Code Identify opportunities to engage further with Supply Chain Sustainability School and share resources with key suppliers	●	In 2024/25, we updated our Sustainable Procurement Code to make it clearer and easier for suppliers to follow. The revised code will first be rolled out to 59 critical and strategic suppliers, then expanded to cover 131 suppliers representing 80% of SGN's spend.
Set KPIs and improvement targets to improve supply chain performance	Establish relevant KPIs to improve environmental impacts in collaboration with our supply chain	2022/23	Aim to improve collection of Scope 3 data from our supply chain	●	We reviewed our internal processes for collecting evidence from suppliers, aiming to ensure a consistent and robust system for verifying compliance with our Sustainable Procurement Code and tracking suppliers' sustainability performance.
Efficient resource use and circular economy					
Embed principles of circular economy and measure the outcomes	Better understand what a circular economy means to our business in practice	2025/26	Promote circular economy principles across the business and identify appropriate areas for improvement	●	We have strengthened our approach to circular economy practices by working with suppliers to repair and reuse damaged road barriers. We are also planning to improve other key waste streams, such as PPE and PE pipe, while acknowledging more work remains in this area.
Zero office and depot waste to landfill	Practice of waste hierarchy – to avoid waste, improve reuse and recycle	2025/26	Targeted actions for worst-performing depots to improve waste to landfill rates and providing depot-specific data to better understand where we can make changes Share best practices from depots performing well across the business	●	We are working with our framework waste management provider to improve segregation and recycling on our sites and drive improvements in landfill diversion rates. The new Simpler Recycling legislation that came in to place in March 2025 should also help drive improvements across our southern network, particularly in implementing food waste bins. Although we are not going to meet our ambitious zero-to-landfill target by the end of GD2, we are currently sitting at 87% landfill diversion and are working to tackle this more challenging 13%.
Zero avoidable waste to landfill across the business	Practice of waste hierarchy – to avoid waste, improve reuse and recycle	2025/26	N/A	●	We are working with reinstatement managers to ensure robust data collection and compliance checks for reinstatement waste. Recent legislation changes in England may lead to more spoil going to landfill, but we are still in the early stages of adapting and assessing the full impact.

- Progress against milestones is at significant risk and highly likely to be missed
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Initiative	Description	Target year	Implementation milestones	Progress	Status update
Efficient resource use and circular economy (continued)					
Reduce the use of virgin aggregate	Reduce the use of finite resources	2025/26	N/A	●	In Scotland, the use of virgin aggregate is often due to the limited availability of nearby recycled material. Our reinstatement team is working to engage more recycling centres, however, a key challenge remains local authorities approving recycled materials for backfilling excavations.
Maintain ISO 14001 accreditation	Maintain our Environmental Management System to an accredited standard	Ongoing	Recertification audit scheduled for August 2025	●	Our Environmental Management System is certified to ISO 14001. The most recent audit identified minor weaknesses related to Control of Substances Hazardous to Health (COSHH), corrective actions, and internal audits.
Local environment					
No net biodiversity loss	Perform biodiversity surveys and implement improvement activities to target biodiversity net gain	2025/26	Undertake improvement projects at 17 of our sites	●	All biodiversity baseline surveys at 128 sites have now been undertaken. In FY 24/25 we have completed improvement works at 12 sites.
Climate change adaptation	Identify and procure climate change mapping datasets to assess sites and identify action	2025/26	1. Procure and implement data sets 2. Assess sites	●	We have produced our Climate Resilience Strategy as part of our GD3 Business Plan and published our 4th Round Climate Adaptation Report. Additionally, we continue to work on our long-term Asset Management Strategy. Climate change mapping datasets available to be used as and when required. In 2024/25, we experienced 31 pipeline washouts, highlighting the impact that climate change continues to have on our operations.

Contribution to energy system decarbonisation

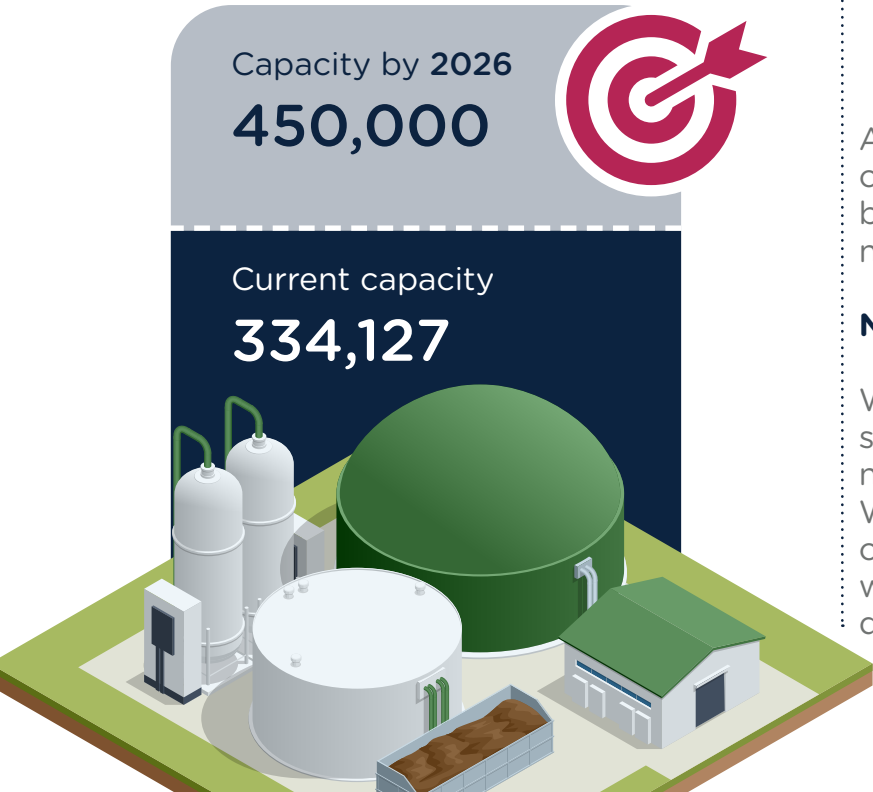
Biomethane

Biomethane is a naturally occurring and renewable gas produced when organic material – such as food waste, cattle manure, sewage, or energy crops – is broken down anaerobically. It can be used for heating and cooking, just like natural gas.

We’re committed to increasing the volume of biomethane in our network to reduce carbon emissions for our customers and provide a sustainable, renewable energy source as we move towards net zero.

We have set ourselves an ambition of providing sufficient network capacity at connected biomethane plants to supply the equivalent of 450,000 homes with biomethane by 2026.

To date, we have connected sufficient biomethane capacity to supply the equivalent of 334,127 homes with biomethane and are projected to facilitate the equivalent of 432,000 homes by the end of RIIO-GD2.



2024/25 biomethane activity summary

Biomethane connections	Unit	Region	2021/22	2022/23	2023/24	2024/25
Enquiries	Count	Scotland:	24	52	54	34
		Southern:	39	66	57	72
Connection studies	Count	Scotland:	11	12	10	16
		Southern:	4	8	10	8
Capacity of connection studies	Scm/h	Scotland:	19,400	20,700	14,100	32,250
		Southern:	11,600	15,370	17,000	15,270
Connections	Count	Scotland:	2	0	4	3
		Southern:	0	0	1	0
Capacity connected	Scm/h	Scotland:	1,500	0	4,300	4,100
		Southern:	0	0	700	0
Volume (energy value) of biomethane injected	kWh	Scotland:	535,364	0	982,557	116,637,978
		Southern:	0	0	733,212	0
Average monthly flow rate (all connections)	Scm/h	Scotland:	573	706	635	635
		Southern:	410	460	410	445

Although this does not reduce our own carbon footprint, it has wider environmental benefits by helping to decarbonise the gas network.

New biomethane connections

We have successfully delivered three new sites across our Scotland network this year, namely Tyneside, Coreside and Seaside. While there were no new biomethane connections to our Southern networks, we’re working closely with project developers to deliver a further ten key sites.

We’re extremely proud of the integral part we’ve played in the development of biomethane as a viable energy resource over the past 14 years.

We already have 43 plants connected and injecting biomethane into our network. We have also been working with our contractors to refurbish and recommission several sites that were previously mothballed. This year, two of these sites have been completed and recommissioned.

Connection studies

We measure biomethane capacity in scm/h, which is the flow rate of a standard cubic metre of gas per hour. The capacity of connection studies we’ve carried out this year exceeds 45,000 scm/h.

We have progressed some of these studies to connection agreements. These projects will be commissioned over the next three years, depending on their financial viability, as well as external factors such as planning permission and feedstock availability.

SIU Bio-CNG

SGN operates five discrete gas grids in the north and west of Scotland. These Scottish Independent Undertakings (SIUs) are centred on Campbeltown, Oban, Stornoway, Thurso and Wick, and are not connected to the national gas transmission system. The mainland sites are supplied with liquefied natural gas (LNG) from the Isle of Grain terminal in Kent and with liquefied petroleum gas in the case of Stornoway. However, the production of LNG and the logistics chain required to transport it to these networks are not compatible with net zero targets. Supplying the SIUs with locally produced, low-carbon energy could help mitigate price and cost volatility and support the decarbonisation of these remote communities.

We're working with the consultancy WSP to complete the conceptual design of the infrastructure required to enable the Wick and Thurso SIUs to be supplied with compressed biomethane gas (Bio-CNG) from a biomethane production site in Invergordon. This will allow around 70% of the LNG demand to be replaced with locally produced, renewable green gas. Following the completion of the conceptual design, we will look to carry out the detailed design of the assets to inform the submission of a Net Zero Reopener in GD3. Additionally, within GD3 we will progress the conceptual designs for Oban and Campbeltown to facilitate the injection of low-carbon gases into these networks.

Future plans

We've been contacted by a number of our existing biomethane sites about their plans to increase biomethane injection rates and improve their overall contribution of green gas flowing into our network. Some biomethane producers are looking to increase the injection rate of individual sites by upgrading their current gas entry facilities and equipment.

Meanwhile other sites, such as some of those in Scotland, are planning to increase their injection rates by constructing additional network entry facilities adjacent to existing sites. The potential expansions at these sites will put them on course to become some of the largest biomethane plants in the world.

We're engaging with some of our connected biomethane sites that are looking to improve their facilities by capturing carbon dioxide (CO₂) instead of releasing it into the atmosphere.

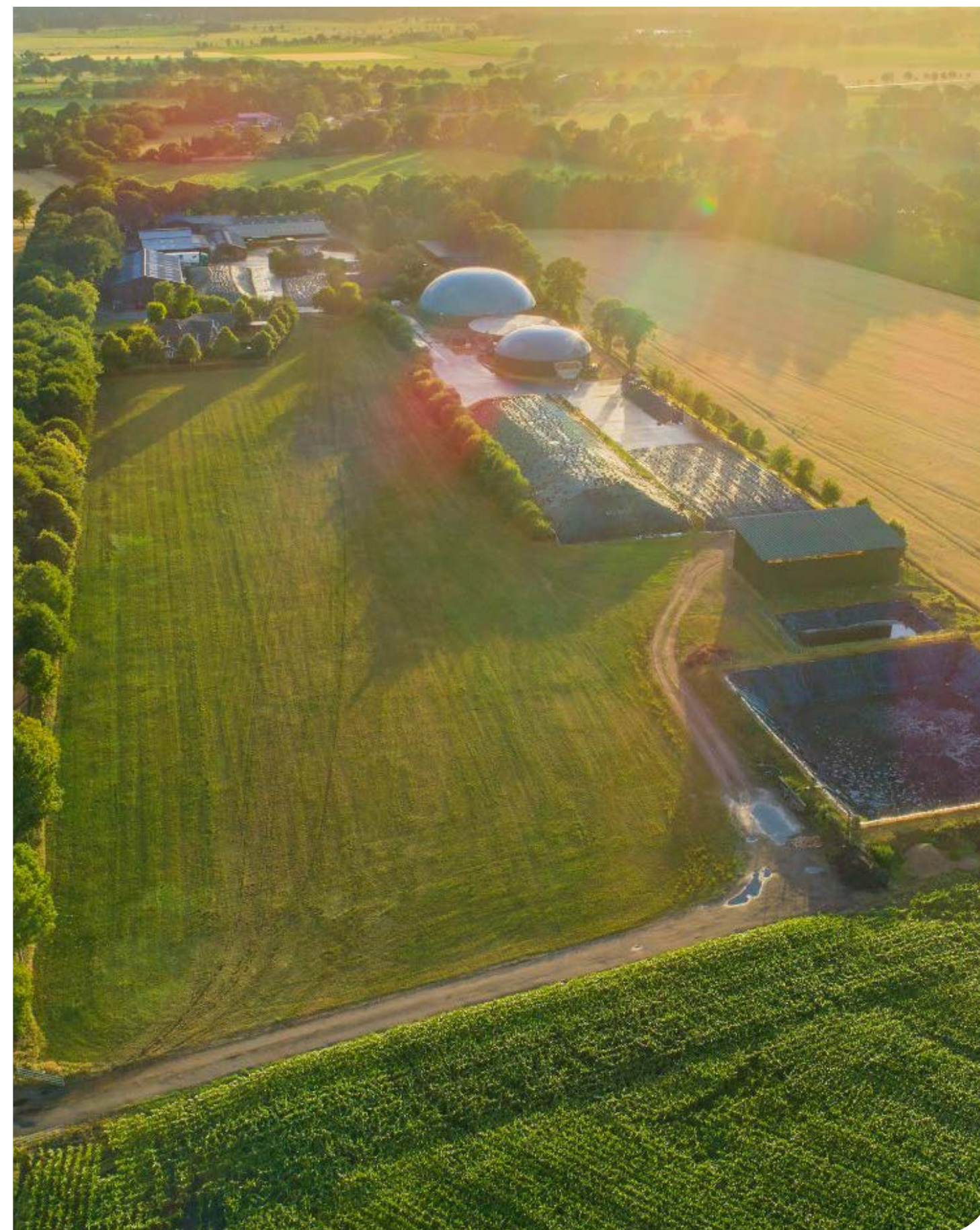
During the biomethane production process, CO₂ is removed from the biogas. By capturing and storing the removed CO₂, it can be used for practical purposes, for example in the food and drink industry. The addition of CO₂ capture would result in sites becoming carbon negative, while also increasing the attractiveness of clean energy certificates.

We currently have nine sites with CO₂ capture and several considering the viability to install.

In addition, many of our biomethane sites are very interested in gas blending and propane reduction, which can reduce the amount of propane required to be added to biomethane to reach gas energy regulation requirements. Reducing propane has a positive environmental impact as it reduces emissions and, in its absence, allows for more biomethane injection.

Through the GD3 business plan process, we are exploring further biomethane initiatives to reduce propane consumption at more plants on our networks.

Our continued efforts will result in significant reductions in both cost and total carbon output, supporting the energy transition to a net zero carbon economy.





Contribution to energy system decarbonisation

Hydrogen

Hydrogen is a clean-burning alternative to fossil fuels with the potential to play a key role across multiple sectors, from heating and power generation to transport and industry. When produced using renewable electricity, such as wind power, green hydrogen generates no harmful carbon emissions, offering a sustainable solution for the future energy system.

We're working closely with Britain's other gas networks, alongside both the UK and Scottish Governments, to explore how our existing infrastructure could be repurposed to distribute hydrogen instead of natural gas. Together, we're building a robust evidence base that could shape how homes are heated and industries are powered in the years ahead, complementing other renewable technologies.

Key projects

H100 Fife

H100 Fife is our flagship hydrogen-to-homes demonstration, delivering 100% green hydrogen through a dedicated gas network directly into homes for heating and cooking.

Located in Buckhaven and Denbeath, the project will supply zero-carbon hydrogen, produced using renewable electricity, to approximately 300 homes. Because the hydrogen is entirely green, no carbon is released when it's used, offering a significant environmental benefit.

Over its two-year trial period, H100 Fife is expected to avoid around 2,650 tonnes of

CO₂ emissions. That's roughly the equivalent of half the participating households removing their cars from the road.

This groundbreaking initiative is a vital step on our journey to decarbonising domestic heating and demonstrates the real potential of using the existing gas network to deliver low-carbon energy in the future.

Further details can be found in the H100 Fife case study on the following page.

LTS Futures

We're assessing whether the Local Transmission System (LTS) can be repurposed to carry hydrogen by using a previously decommissioned 30km pipeline between Grangemouth and Granton in Scotland.

This project is part of the UK's National Hydrogen Research programme, with our team gathering evidence to show the pipeline's suitability for transporting 100% hydrogen instead of natural gas – supporting the journey to net zero. A first-of-its-kind live trial is scheduled for summer 2025.

A newly built 1.2km hydrogen supply pipeline, connecting to existing production at INEOS, will feed the trial pipeline. This key section of infrastructure has now been completed.

Looking ahead, the project will focus on finishing site construction, upskilling SGN operatives, and finalising documentation such as management procedures and work instructions needed to carry out the trial.

Hydrogen blending

While we are exploring 100% hydrogen initiatives, blending hydrogen with natural gas serves as a transition to reduce carbon emissions without fundamentally impacting consumers. The UK Government has taken a strategic policy decision to support blending of up to 20% hydrogen with methane, subject to Health & Safety Executive (HSE) approval of evidence and associated network safety case.

We are working alongside the other gas distribution networks (GDNs) and National Gas Transmission to deliver a programme of work that results in a network that is blend-ready and will support the changes to Gas Safety (Management) Regulations 1996 GS(M)R required to make this a reality. The work involves an Operational Readiness workstream which provides an impact assessment covering assets, processes, systems and people with a corresponding implementation plan to support the transition to blend readiness. In parallel, the Market Frameworks workstream sets out the pathway to a Uniform Network Code (UNC) change required for a blend-ready network.

We are also exploring the potential opportunities of hydrogen blending at our National Transmission System (NTS) offtakes. This also involves a feasibility study into the potential for blending into Edinburgh via the LTS futures pipeline.

Local authorities and UK Government

We're actively collaborating with local authorities, prospective hydrogen producers,



↑ This wind turbine generates the clean energy used to power H100 Fife

and end users as we progress our key hydrogen initiatives. As local governments develop their own pathways to net zero, it's vital that we share insights from our hydrogen projects to help inform and support their strategic planning.

At the national level, we maintain a close working relationship with the Department for Energy Security and Net Zero (DESNZ), contributing valuable evidence from our portfolio of hydrogen projects. This work is helping to shape UK Government policy and reinforces the critical role hydrogen can play in achieving national net zero ambitions.

Blending hydrogen with natural gas serves as a transition to reduce carbon emissions without fundamentally impacting consumers



CASE STUDY: CONTRIBUTION TO ENERGY SYSTEM DECARBONISATION

Creating the world's first green hydrogen community

SGN's H100 Fife project is pioneering a clean alternative to natural gas – while building trust and opportunity in the local community



“We’ve been keeping customers safe for decades with natural gas, and it’s the same with hydrogen.”

Ruaridh Macgregor,
Senior Communications Manager,
SGN

Heating our homes is one of the biggest contributors to carbon emissions in the UK. To meet national net zero targets, we need practical, cleaner and scalable ways to keep warm – and our H100 site in Fife is showing that hydrogen could be part of the answer.

H100 Fife comprises a green hydrogen network for domestic heating, supplying up to 300 homes. Located in Buckhaven, near Leven in Fife, Scotland, this end-to-end system takes electricity from a dedicated offshore wind turbine to power an electrolyser, which produces hydrogen through water electrolysis. The hydrogen is then stored onsite and delivered via a purpose-built network to homes in the area.

Low-carbon energy with minimal disruption

As well as offering a net zero alternative to fossil gas, H100 Fife is straightforward for customers; those who have opted in will switch from natural gas to 100% green (zero-carbon) hydrogen, and will receive free hydrogen-ready appliances.

Because hydrogen behaves much like natural gas, it can be used in existing heating systems with minimal changes inside the home.

“Hydrogen operates in a broadly similar way to natural gas,” says Ruairidh Macgregor, Senior Communications Manager at SGN. “There are actually very few changes required internally, which is a plus for customers.”

For the wider energy system, the project is an important testbed to understand how hydrogen could work at scale and alongside other technologies.



Safety first: building on decades of experience

SGN understands that new energy technologies raise questions – particularly around safety and reliability. That’s why industry-leading procedures have been central to H100 from the beginning.

“We’re a business that has real, robust measures in place to protect our customers,” says Ruaridh. “We’ve been keeping customers safe for decades with natural gas, and it’s the same with hydrogen – we have a comprehensive body of evidence of the work that we’ve done to ensure H100’s safety.”

Built on trust, with the community at its heart

From the outset, SGN’s approach has been about more than just infrastructure. Thanks to strong outreach, the team has built positive relationships with local people, community groups and the local authority.

“Trust has been so critical to this project,” says Ruaridh. “We’re taking an untrodden path, and there will always be challenges and things you may not have anticipated. The key is being really transparent with our customers so they’re on the journey with us – and people are quite excited about the fact that we’re bringing this project to their community.”

While it’s still early days, our work in Fife could help shape national decisions about the future of domestic heating – a key step in proving that green hydrogen can be a viable, safe and effective part of the UK’s future energy mix.





Innovation for decarbonisation and to protect the environment

Innovation plays a critical role in our transition to a net zero economy and in our efforts to protect the environment. SGN is uniquely positioned to lead and support the development of low-carbon technologies, sustainable practices, and future-ready systems that will shape a cleaner, more resilient energy system for generations to come.

For our 2024/25 Annual Environmental Report, we undertook a review of how we define and report investment in innovation. As a result, we have broadened the scope of what we consider innovation-related activity to include our entire Future of Energy portfolio. This change reflects the strategic importance of these projects in delivering decarbonisation, environmental improvement and long-term system transformation.

We recognise that this revised approach has significantly increased the reported investment figure, from £1.6m in 2023/24 to £63.5m in 2024/25. However, we believe this is a more accurate and transparent reflection of our ongoing innovation efforts. It also provides a consistent baseline for reporting in future years.

Our Future of Energy portfolio includes flagship projects such as H100 Fife and LTS Futures, alongside a range of smaller, targeted innovation projects. Together, these initiatives aim to trial new technologies, reduce carbon emissions, and build the capabilities required for a net zero energy system.

Here, we highlight three examples of innovations projects we have invested in during the reporting year.



↑ Community champions drive the Fairer Warmth Hub's mission

The Fairer Warmth Hub

The Fairer Warmth Hub addresses key barriers to a just energy transition, including exclusion of vulnerable groups, fragmented resources, and high engagement costs. It offers a scalable solution through trained community champions, digital tools, and physical hubs to support inclusive local

energy planning. Phase Two will expand tool development for schools and healthcare, implement demonstrators in Fife and the Isle of Wight, and prepare for national scaling with added support from Cadent, Northern Gas Networks and Wales & West Utilities officially joining as partners on the project.

Biomethane Island

A Biomethane Island (BI) is an isolated section of the gas network supplied exclusively by low-carbon biomethane, supporting self-sufficient, low-carbon energy systems and contributing to gas network decarbonisation. This project will assess the feasibility of converting three locations into BIs by evaluating site suitability, network modifications, feedstock availability, carbon intensity, waste management, and environmental impacts. It will also explore production optimisation, storage solutions, funding options, and regulatory compliance. The outcome will be a comprehensive framework to ensure sustainability and supply security, enabling wider replication across Great Britain and supporting the transition to a greener energy system.

Heat Network Transition Study

As the UK moves towards net zero heating, SGN's role, particularly in Multi-Occupancy Buildings (MOBs), must be clearly defined. The Heat Network Transition Study explores SGN's potential contribution by identifying technically feasible and commercially viable energy solutions, with a focus on leveraging existing assets. The study evaluates options for repurposing current infrastructure and considers alternatives where this is not possible. Economic assessments are being carried out to determine viability, including opportunities to reuse, recycle, or resell assets to offset transition costs. The findings will support low-carbon heating development while ensuring commercial sustainability and alignment with regulatory requirements.



Climate change mitigation

We have set ourselves the target of reaching net zero emissions by 2045. This is our long-term carbon reduction target, aligned with the science-based methodology of the Paris Agreement.

We will achieve this across our direct carbon emissions (Scope 1), energy that we purchase from others (Scope 2) and indirect carbon emissions from our supply chain (Scope 3).

By the end of RIIO-GD2 in 2026, we aim to reduce our business carbon footprint Scope 1 and 2 emissions (excluding shrinkage) by 25% compared with our 2019/20 baseline.

Shrinkage

As a gas distribution network, our carbon footprint is largely driven by the natural gas that is transported through our network.

The biggest contribution to our organisational carbon emissions by far is shrinkage. This includes leakage from our network (so called fugitive emissions), theft of gas and our own gas use. Shrinkage is a Scope 1 carbon emission and included in our net zero target for 2045.

In total across both our networks, our annual shrinkage was 692,653tCO₂e. This is a reduction of more than 9.5% compared with baseline year 2019, and an increase of 3% compared with last year. The reason for the increase from last year is due to two significant gas escapes that occurred in our Southern network. If these gas escapes had not occurred, we would have seen a 3.8% reduction in our emissions from shrinkage compared with last year, thus showing that our pipe replacement programme is continuing to effectively reduce leakage.

You can find a detailed breakdown of our leakage volumes by source and by network in the report appendix.

We're replacing old iron gas mains with new plastic pipes to ensure homes and businesses continue to receive a safe and reliable gas supply into the future.

As well as the safety benefits of our network upgrade programme, it also ensures our network is ready for the transition from natural gas to hydrogen.

In 2024/25, we've replaced 1,012km of old metal mains with new polyethylene (PE) pipe, and now have 57,314km of PE pipe within our networks. Our Scotland network is now 82.5% PE pipe and our southern network 77.7% PE pipe¹.

In addition to our mains replacement programme, we are also using innovative new technologies, such as CISBOT, to upgrade our networks and implement a reduction in emissions.

Another key initiative contributing towards reducing shrinkage is our remote pressure control and management system, Utonomy. Reducing excess pressure in our network results in lower leakage levels and fewer emissions.

We plan to fit 265 Utonomy systems across our network by 2026. At the end of the 2024/25 financial year, we had installed 195 systems. We expect the remainder of the systems to be installed by the end of 2025. It is estimated that once the project is complete, we would expect 3.2GWh reduction associated with the pressure management systems.

Scope 1 and 2 carbon emissions

To achieve net zero carbon emissions by 2045, we have determined our Scope 1 and 2 emissions flight path. Not only will this ensure we meet our 2045 target, but it also ensures we are on track with the Paris Agreement goal of limiting global warming to 1.5°C.

By the end of RIIO-GD2 in 2026, we are aiming to reduce our business carbon footprint Scope 1 and 2 emissions (excluding shrinkage) by 25% compared with our 2019/20 baseline.

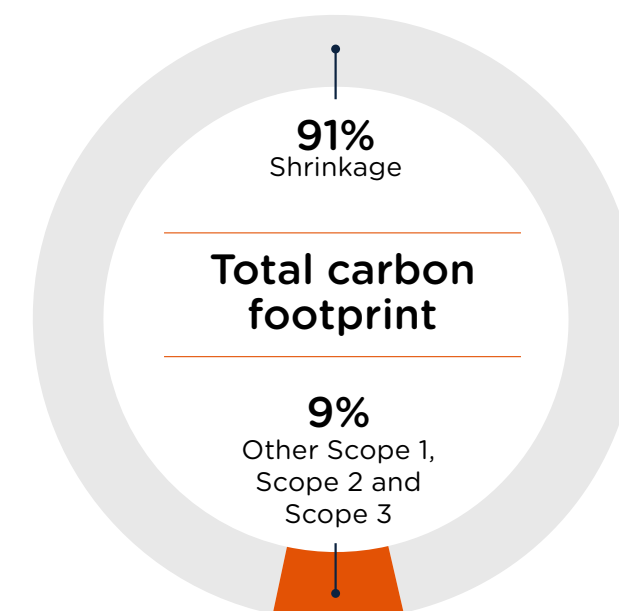
As part of our RIIO-GD3 Business Plan, we have also committed to reducing our Scope 1 and 2 carbon emissions by 46% (including shrinkage) by 2031 compared with our 2019/20 baseline.

Net zero trajectory for Scope 1 and 2 excluding shrinkage

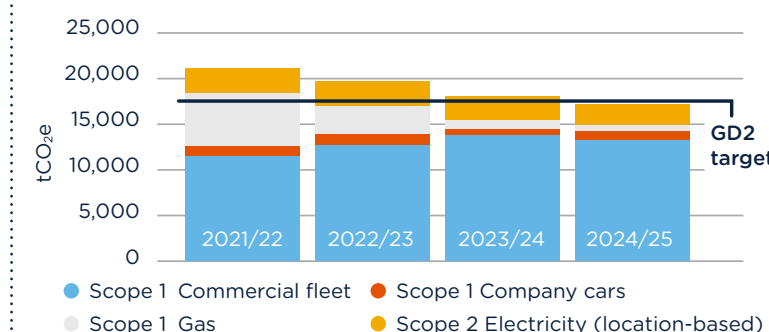
We continue to work towards achieving our 25% reduction target for Scope 1 and Scope 2 carbon emissions by 2025/26. Since our baseline year in 2019, we've reduced our business carbon footprint by almost 23%.

Over the following pages, we explain our progress in reducing our Scope 1 and 2 carbon emissions this year. You can also find more in-depth emissions data within the report appendix.

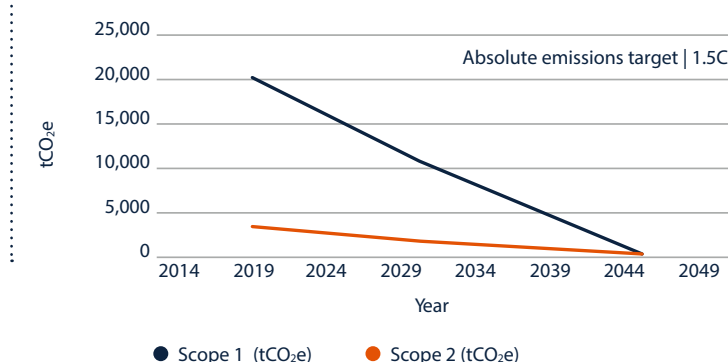
¹Note that last year we reported an inaccuracy in relation to the percentage of the network that had been replaced with PE pipes. In 2023/24, our Scotland network was 81.5% PE pipe and our Southern network was 76.2% PE pipe.



Scope 1 and 2 carbon emissions (excluding shrinkage)



Scope 1 and 2 carbon emissions trajectory (excluding shrinkage)





Climate change mitigation continued

Building energy use

The total carbon emissions from our building energy use have reduced from 3,479tCO₂e in 2023/24 to 3,207tCO₂e this year.

We measure Scope 2 carbon emissions from our building energy use through a location-based carbon emissions approach. This means we measure the carbon emissions associated with the electricity consumed at a specific location (ie our depots and offices).

In 2024/25, our location-based Scope 2 carbon emissions totalled 2,457tCO₂e. We can reduce our location-based carbon emissions by installing solar panels and other direct-feed renewables on our sites, as well as by reducing our electricity consumption and becoming more energy efficient through the use of LED lights.

In 2023/24, our Scope 1 emissions reduced significantly due to the turbo expander at our St Mary Cray depot being off for maintenance. The combined heat and power (CHP) engine that works alongside the turbo expander is historically our biggest source of gas consumption. During the 2024/25 financial year, we have decided to decommission the turbo expander, meaning it no longer generates carbon emissions and is therefore not included in our calculations.

As we are committed to reducing the carbon footprint of our buildings, we have developed three key programmes: installation of renewable energy, building management systems and LED lighting.

In addition, energy audits carried out as part of the mandatory Energy Savings Opportunities Scheme (ESOS) will help to identify further opportunities for carbon

emission reductions and efficiencies across our operations. In August 2024, our ESOS Phase 3 assessment was undertaken by Adler and Allen in accordance with the UK Government's ESOS guidance. The assessment involved a comprehensive review of our energy consumption across Scotland and southern England identifying opportunities to improve energy efficiency and reduce overall energy use. In response to the recommendations made by the ESOS auditor, we prepared an action plan and will report annually against the progress of these actions.

Renewable energy

Due to a review of our property portfolio, we were unable to install any solar PV at our depots and offices in 2024/25. We are aiming to install solar PV at three of our sites in 2025/26.

Building management systems

Our installation of building management systems were also delayed this year due to the review of our property portfolio. However, we have several projects scheduled over the next 12 months. The systems will optimise the way we use heating and cooling, making it more efficient and saving energy.

LED

We installed LEDs at three of our sites during 2024/25. We are looking to build on this in the upcoming financial year, with the aim to install LEDs at six of our sites.

Operational transport Commercial fleet

In 2024/25, our Scope 1 carbon emissions (excluding shrinkage) accounted for almost 95% of our total Scope 1 emissions (excluding shrinkage).



We historically set a goal to transition up to 50% of our commercial fleet to zero-emission vehicles by 2026. However, we have experienced several challenges around EV range, particularly for operational vehicles that require power take-off units and have payload restrictions and towing issues with the current EV models. There are also difficulties with charging infrastructure and charging time, which is something we experience at our remote sites.

To address these issues and support our transition to zero emissions, we plan to add an additional 30 EV vans to our fleet during the 2025/26 financial year.

Company cars

We currently have 561 company cars, with 90% of these vehicles being either electric or hybrid. This is part of our ongoing commitment to reduce emissions, which began in 2019. By increasing the number of electric and hybrid cars, we have successfully reduced the average emissions of our car fleet from 44.2gCO₂/km to 40.0gCO₂/km in the past year. We also offer an employee car salary sacrifice scheme that focuses on zero-emission and hybrid cars. This scheme includes a CO₂ emissions limit to ensure that the cars chosen align with the company's overall environmental targets.

Charging points

We recognise that we will not achieve our target of installing 355 charging points during the current RIIO-GD2 period. This is largely due to multiple depots requiring substantial power supply upgrades to facilitate EV charging points. Therefore, this initiative is now expected to continue into the GD3 period.

Scope 3 carbon emissions

Our Scope 3 carbon emissions include all indirect emissions not produced by us or our assets. These emissions are produced by the products and services we buy and use through our supply chain, as well as other indirect emissions including business travel and waste in our operations.



Climate change mitigation continued

With the exception of our Scope 3 Category 6: Business Travel emissions, our Scope 3 data has not been independently assured, but we want to share what we are doing within this report and how we are working towards improving both our Scope 3 emissions performance and our data gathering.

Approximately 13% of our Scope 3 carbon emissions are generated from purchased goods and services. In 2024/25, we identified this as circa 5,817tCO₂e. As we further improve our Scope 3 data gathering over the coming years, we expect this to increase.

Capital goods represent approximately 35% of our Scope 3 carbon emissions. This year, data from our PE pipe suppliers show carbon emissions of circa 15,221tCO₂e. We will work with additional suppliers during RIIO-GD2 to gather more data where possible. As such, we're expecting carbon emissions in the category to also increase.

Scope 3 improvement programme

We're taking steps to improve our Scope 3 data through extensive engagement with our supply chain. This is an ongoing journey that will continue throughout this price control period and beyond.

It is a challenging task to capture, measure and report on Scope 3 carbon emissions data; however, we've made progress in the quality of data collection this year.

We've worked with our travel provider to gather data for car hire, as well as reporting on energy usage on shared sites with SSE and helicopter pipeline

survey data. With improvements in our data capture process during 2024/25, we have greater confidence in the Scope 3 data we're capturing and monitoring this year.

You can find a full breakdown of the Scope 3 carbon emissions we've directly captured this year within the emissions data in our appendix.

Business travel

Our business travel emissions in 2024/25 were 1,111tCO₂e. This is a 13% decrease

on last year. This has been influenced by reduced air travel by staff as there have been company-wide encouragements to reduce unnecessary air travel.

Industry collaboration

One way to reduce the impact of streetworks is by working in collaboration with other utilities companies. This can help reduce not only the environmental impact, but the social impact too. One of these collaborations was with Thames Water on our Chaucer Road Project in

Kent, England. This was a mains replacement project and involved SGN and Thames Water working together under the same traffic management setup, avoiding separate road closures and duplicated works.

It was calculated that by working collaboratively we saved over 40tCO₂ through reduced trips. Additionally, we managed to reduce the duration of the project by 40 days, which made a huge difference to local residents.





CASE STUDY: INNOVATING FOR DECARBONISATION

Supporting net zero with carbon-saving innovation

Innovative equipment is helping SGN reduce methane emissions, improve safety and cut costs on major mains replacement projects



“Instead of wasting gas, we’re recovering it and putting it back into the network. It’s efficient, it’s safer, and it’s the right thing to do.”

Simon Patient, Engineering Manager Operations, SGN

SGN is investing in new technology to help reduce emissions from essential gas network operations. One example is our use of drawdown compressors, which recover gas that would otherwise be released to the atmosphere during pipeline decommissioning work.

The compressors were introduced in 2023 following a successful Ofgem trial. Developed by ULC Robotics and Flowstop Services, the kit has already been used in over ten jobs, including major projects in Mitcham, south London, and on the Isle of Wight.

Significant emissions savings

When a section of gas main is decommissioned, it’s common practice to purge the remaining gas into the atmosphere, which is a waste of resource. But with a drawdown compressor, up to 95% of this gas can be recovered. On one project in London, the drawdown compressor recovered 17,712 cubic feet of gas, avoiding 28.7 tonnes of CO₂e emissions – the equivalent of driving 136,000 miles or the annual energy use of 12 UK homes.

Improving safety and efficiency

Drawdown compressors allow us to extract gas left in large-diameter mains during replacement or repair work and inject it back into the live network, cutting methane emissions, reducing waste, improving safety – and saving money.

This method not only reduces environmental impact but also improves operational safety. By significantly reducing gas venting in sensitive or residential areas, drawdown compressors help prevent public concern and reduce risk to engineers working onsite.



This new technology is far more efficient than traditional methods of preventing venting; a process that could take up to 14 hours can now be completed in just 90 minutes with the drawdown compressor.

Recognised for innovation

We're working to maximise the use of drawdown compressors across all relevant mains replacement projects. This technology has been recognised at the 2025 Gas Industry Awards, winning the Net Zero Innovation Award.

Phil Pearson, Head of UK Operations at ULC Technologies, said, "ULC Technologies and Flowstop Services are proud to collaborate with SGN in advancing the transition to a lower carbon energy future through the development and deployment of the DDC-125 Drawdown Compressor."

"Seeing the compressor move from trial phase to wider network implementation is a powerful example of how partnership and innovation can drive meaningful climate action."

With clear benefits for the environment – as well as for the business – drawdown compressors are another example of how SGN is making everyday operations more sustainable.

"This innovative technology is already playing a key role in helping SGN reduce operational emissions, aligning with their ambitious environmental goals."

Phil Pearson, **Head of UK Operations,**
ULC Technologies





Sustainable procurement

In 2024/25, Scope 3 carbon emissions associated with our contractors and supply chain activities accounted for 7% of our total reported emissions. However, when excluding emissions associated with shrinkage, which represent a significant and largely non-procurement-related portion of our footprint, contractor and supplier emissions made up approximately 72% of our remaining operational and controllable emissions.

This highlights the important role our supply chain plays in helping us reduce our environmental impact and progress towards our sustainability goals. Engaging with suppliers and contractors is therefore a key part of our environmental action plan.

Sustainable Procurement Code

In 2023/24, 85% of our suppliers (by value and criticality) met the requirements of our supplier code, and 82% had their own sustainability metrics or KPIs in place.

During the 2024/25 financial year, we focused on strengthening our approach to sustainable procurement by reviewing and updating our Sustainable Procurement Code. The aim of this review was to ensure that the code is clear, accessible and easier for suppliers to implement. Key elements of the revised code include:

- **Respect for the planet** – we encourage our supply chain to set carbon emission reduction targets, including net zero targets, and report actions and progress against such targets to us.
- **Respect for people** – we expect all suppliers to respect basic human rights as established by the European Convention on Human Rights, and to adhere to legislation against child labour, forced labour, modern slavery, and discrimination.

- **Respect for ethical processes** – we expect all suppliers to allow for transparency and accountability within their operations.

As part of this update, we also reviewed our internal processes for collecting evidence from suppliers. This was to ensure we have a consistent and robust mechanism to verify that suppliers are meeting the Code and tracking their own sustainability KPIs. As 2024/25 is a transitional year for implementing these changes, we are not disclosing updated supplier performance results in this report. We will report on these in full in our 2025/26 Annual Environmental Report, based on data collected under the improved process.

The revised Sustainable Procurement Code will initially be issued to our critical and strategic suppliers (59 in total), followed by a rollout to a broader group representing 80% of our spend, covering 131 suppliers.

Supply Chain Sustainability School

We continue to recognise the value of the Supply Chain Sustainability School (SCSS) in supporting supplier capability, covering key topics such as carbon management, social value, and sustainable procurement. Participation in the SCSS enhances suppliers' knowledge and contributes to improved sustainability performance.

In 2024/25, we updated our list of prioritised suppliers, with a renewed focus on our critical and strategic partners. We are working closely with these suppliers to encourage engagement with the SCSS, particularly those who have not yet enrolled. Through direct engagement, we are highlighting how participation in the SCSS can support their own sustainability goals and contribute to our shared environmental commitments.



Efficient resource use and circular economy

By using resources more efficiently and preventing waste, we create a circular economy, doing more with less.

To improve the circularity of our operations, we have set the following ambitions:

- Send zero waste to landfill from our office depots, reinstatement and construction/major projects by 2026, including non-hazardous waste from our gas holder dismantling programme.
- Recycle 93% of total materials and reuse 6.5% of total materials by 2026.
- Reduce the use of virgin aggregate to less than 20% in Scotland and 1% in our Southern network.

Current performance

We created 352,030 tonnes of waste in 2024/25 – approximately 86% was recycled and 14% went to landfill. There was an increase in waste to landfill this year as we had works located in areas where the soil type was not recyclable. We also saw an increase in office and depot waste going to landfill.

As highlighted in our 2023/24 Annual Environmental Report, we realise our zero waste to landfill target was too ambitious and we are not expecting to reach this in RIIO-GD2.

Waste management improvements

Improving how we manage waste across our operations continues to be a key focus, particularly as we aim to reduce the volume of material sent to landfill. Building on the work initiated in 2022/23 with our waste partner Biffa, we began implementing a series of targeted improvements in 2023/24 to increase recycling and improve waste segregation at our depots. This included installing recycling bins at sites previously limited to general waste, introducing enclosed skips to prevent unauthorised use,

and expanding recycling streams to cover materials such as wood and WEEE.

In 2024/25, we made further progress by launching initiatives aimed at increasing reuse and improving segregation. We worked with our supplier Cusack to repair and reuse damaged barriers, and we're also assessing ways to reduce waste associated with PPE and PE pipe.

From November 2024, we began rolling out 'Simpler Recycling' waste streams across all Southern depots to prepare for legislative changes that occurred in April 2025. This programme included a full review of internal bin types, signage, collection schedules and training to support site-level engagement. Early results suggest improved segregation and enhanced waste efficiency, and we plan to build on these outcomes over the coming year.

We have also strengthened our internal processes by gathering more accurate reinstatement waste data and carrying out duty-of-care checks. Together, these actions reflect our commitment to minimising waste, supporting circularity, and preparing for evolving environmental standards.

Waste type	2021/22		2022/23		2023/24		2024/25	
	Tonnes	% of total waste	Tonnes	% of total waste	Tonnes	% of total waste	Tonnes	% of total waste
Depot and office waste	2,081	1%	1,384	1%	2,063	1%	1,770	0.5%
Spoil waste (reinstatement)	190,582	95%	228,371	94%	300,615	94%	346,374	98.4%
Non-depot waste	8,803	4%	12,455	5%	11,714	5%	3,886	1.1%
Total	201,466	100%	242,210	100%	314,391	100%	352,030	100%

Treatment type	2021/22		2022/23		2023/24		2024/25	
	Tonnes	% of total waste	Tonnes	% of total waste	Tonnes	% of total waste	Tonnes	% of total waste
Recycling/recovery	191,242	95%	227,612	94%	294,663	94%	303,899	86%
Energy from Waste (EfW)	936	0%	561	0%	677	0%	551	0%
Incineration (without energy recovery)	0	0%	257	0%	1	0%	0	0%
Anaerobic digestion	20	0%	8	0%	10	0%	36	0%
Preparation for reuse	1,253	1%	5,045	2%	90	0%	0	0%
Other	-	-	-	-	-	-	204	0%
Landfill	7,999	4%	8,984	4%	18,950	6%	47,340	14%
Total	201,466	100%	242,210	100%	314,391	100%	352,030	100%



Biodiversity at our sites

Biodiversity

Biodiversity is described as all the different kinds of life in a particular area (plants, animals, fungi and microorganisms) and how they work together in ecosystems. These ecosystems give us what we need to survive – clean water, food, medicines and shelter.

Biodiversity in the UK and worldwide continues to decline as a result of land use and climate change. As humans put increasing pressure on the planet, using and consuming more resources than ever before, we risk upsetting the balance of ecosystems and losing biodiversity.

We recognise the profound impact the environment has on the quality of life and wellbeing of our people and the communities we serve and consider it a fundamental responsibility to operate in a sustainable way to protect and enhance the natural environment.

We are helping to play our part in reversing the loss of biodiversity by committing land in our company portfolio to biodiversity enhancement projects that will improve local ecosystem resilience and achieve biodiversity net gain.



← Our award-winning biodiversity team

Recognised for excellence in biodiversity

In September 2024, our biodiversity enhancement work at the liquefied natural gas (LNG) storage plant in Oban, Scotland, received national recognition at the BIG Biodiversity Challenge Awards, winning the 'Habitat Creation: Project of the Year (Medium to Large Scale)' category and received a commendation in the 'Client Award' category. The project also went on to win an International Green Apple Environmental Award for Environmental Improvement, which was presented in November 2024.

These awards recognise the significant ecological enhancements delivered through the project, including the planting of native trees and wildflowers, creation of habitats for reptiles and birds, installation of kingfisher boxes, and construction of an artificial otter holt along the riverbank.

Going forward

Building on the success of this year, we're planning to carry out improvements on more sites across both our Scotland and Southern network areas.

We will continue to maintain our improved sites and will resurvey in a few years to determine how ecologically valuable the habitat created is and determine the biodiversity net gain.

We remain on target to achieve our RIIO-GD2 commitments and will continue to prioritise these improvement projects and build on our learnings to help ensure we make a positive impact on the environment and for our stakeholders.

During RIIO-GD2, we're committed to:

- improving or restoring environmental quality and/or biodiversity on sites we own and manage
- enhancing the environment at other locations within the communities we serve
- making our network and operations more resilient to climate change.

As reported in 2023/24, we have now completed biodiversity baseline surveys at all of the 128 sites identified. We are in the process of undertaking improvement projects across our network. This year, we managed to complete 12 improvement projects. You can read more about the improvements we've made at our Ipsden site in Oxfordshire in our biodiversity improvement case study on the following page.

Across these 12 sites, we have made the following improvements:



81

bird boxes installed



36

bat boxes installed



20

reptile hibernacula created



2

bee hotels installed



4

red squirrel boxes installed



1

pine marten box installed



CASE STUDY: BIODIVERSITY IMPROVEMENT

Transforming operational land into a wildlife haven

We're boosting biodiversity through woodland and habitat enhancements at our Ipsden site in Oxfordshire



"We're committed to improving the biodiversity of our land and ensuring our sites support nature wherever possible. The Ipsden enhancements show how even small sites can make a big difference."

Jack Porter, **Estates Property Support Manager**, SGN

We continue to improve biodiversity across our estate, with recent works completed at our Ipsden site.

This is part of a wider programme of environmental enhancements focused on increasing the ecological value of our smaller sites across the network, with Ipsden identified as a strong candidate for one of these enhancements.

About the site

Located in a rural setting near Oxford, Ipsden is an operational gas site located within a densely wooded area. Historically, SGN's involvement was limited to maintaining operational safety – such as keeping trees back from the compound – with the surrounding land otherwise unmanaged. The dense tree canopy meant limited light reached the ground, inhibiting undergrowth and reducing biodiversity.

Improving woodland and grassland habitats

In November 2024, we completed our biodiversity improvement project at Ipsden in partnership with our contractor Keystone Environmental. Based on previous biodiversity and arboricultural surveys, we took the following actions to diversify habitats, improve woodland structure, and create new homes for wildlife:

- Thinning and coppicing of 20% of woodland plantation to allow light to reach the forest floor, encouraging understorey diversity and benefiting invertebrates and small mammals.
- Creation of a scalloped woodland edge and installation of 450m of deadwood habitat piles to encourage invertebrates, small mammals and fungi and provide natural refuge and habitat.



- Cutting and clearing of grassland areas to prevent scrub encroachment and encourage flowering plants, supporting pollinators and other wildlife.
- Installation of the following features to support populations of key local species:
 - » 23 bat and bird boxes
 - » 12 dormouse boxes
 - » 3 hibernacula for reptiles
 - » A barn owl box on a monolith tree
- Additional hedgerow planting not originally planned, capitalising on an on-site opportunity.

Future monitoring

The work at Ipsden demonstrates that meaningful environmental improvements can be made even on operational utility land, setting a precedent for future projects. Follow-up surveys will track progress towards a targeted biodiversity net gain score of 36.94%.





Climate change resilience

Climate change adaptation and resilience are complementary concepts. Adaptation is the process of adjusting to actual or expected climate-related effects, and resilience is the capacity to anticipate, respond to and recover from climate-related impacts.

Climate resilience strategy

In December 2024, we published our Climate Resilience Strategy, which outlines our approach and commitments to ensuring our assets remain resilient to a changing climate over the short, medium and long term. Our strategy identifies increasing extreme weather events as a key risk to our network. It also details the various ways we intend to mitigate this, including proactive survey work for river crossings, river and coastal erosion remediation works, and pipeline repair work.

The strategy acknowledges the need for the business to introduce a measure for climate resilience and to establish a standard baseline from which we will monitor our progress. This is something that we are committed to implementing and we are in the early stages of developing a long-term Asset Management Strategy up to 2050.

We continue to see the impact of climate change on our network, with more extreme weather events including more frequent heavy rainfall, flooding and erosions presenting a safety, environmental and security of supply risk to us and our customers. In 2024/25, we have experienced 31 pipeline washouts due to flooding, which is the predominant risk to our assets. This is a significant increase from the previous year when we experienced 12 pipeline washouts. In response, we are undertaking surveys of river



crossings and completed remediation works at 21 sites in 2024/25.

We are also looking forward to continuing working with the other gas distribution networks and National Gas through the industry organisation Future of Energy Networks.

For the third time within our 2025 SGN Annual Report, we've reported on how we identify, assess and manage our climate-related risks and opportunities using the Taskforce for Climate-related Financial Disclosures (TCFD) framework.

For a more detailed assessment of our climate-related risks and how we manage them, our 4th Round Climate Adaptation Report is available on our [website](#). This report

is published in line with the UK Government's Adaptation Reporting Power, which requires critical infrastructure providers to assess and report on their resilience to climate change. It outlines how we are assessing and responding to current and future climate risks across our operations.

Environmental incidents

A reportable environmental incident is an incident that has the potential to cause harm to the environment by polluting water or land and is required to be reported to the relevant environmental regulatory body such as the Environment Agency (EA) or the Scottish Environment Protection Agency (SEPA).

The only reportable environmental incident that occurred in 2024/25 was in our Southern network when water was pumped from an

excavation with a broken foul drain in. No silt sock was used, and the water was pumped into a surface course drain. Once this incident was identified, our team immediately fitted a silt sock to the water pump. Thames Water subsequently allowed our team to pump directly into one of their drains. The incident was reported to the Environment Agency.

Following this incident, we took steps to retrain employees on dewatering excavations according to procedures, including delivering toolbox talks.

Environmental near misses and hazards are identified through our internal incident reporting and tracking system, Velocity. We use these as opportunities to review the lessons learnt to prevent recurring incidents and mitigate environmental impacts.



Statement on scope and quality of data

We aim to provide full disclosure of our progress and we've engaged independent assurance specialists to provide limited assurance on the quality of selected carbon emissions data



Statement on scope and quality of data

Introduction

This Annual Environmental Report (AER) provides our progress against targets and objectives as approved by the regulator Ofgem in line with the [Final Determination for RIIO-GD2 price control](#).

The information we've provided is in line with the [RIIO-GD2 Environmental Reporting Guidance Version 1.0](#) and [RIIO-GD2 Gas Distribution Price Control Regulatory Instructions and Guidance: Version 1.15](#) (Chapter 13, sections 11.06 and 11.07).

The AER covers the third year of the price control period RIIO-GD2, which runs from 1 April 2024 up to and including 31 March 2025.

The data we've included in our AER is the same as we've presented to Ofgem in the Regulatory Reporting Pack (RRP) for the financial year 2024/25, with the exception of adjustments made to our carbon emissions for Scope 1 gas and direct commercial vehicles. According to the Regulatory Instructions and Guidance for RRP reporting, reporting Scope 3 data is considered voluntary.

Data quality improvement of material Scope 3 data is a focus for us over the next few years. We're also aware that we have data gaps – referenced in more detail on the Completeness of Information page later in this section – which we are tackling and aiming to eliminate.

Our Scope 1 and 2 (location-based) carbon emissions including gas shrinkage and our Scope 3 Category 6: Business Travel have been independently assured by DNV Business Assurance Services UK Ltd

(DNV) and you can find the Independent Assurance Report on pages 43-45.

While Scope 3 carbon emissions data is voluntary, we have decided to disclose the data we're capturing. Except for Scope 3 Category 6: Business Travel, our Scope 3 data has not been subject to limited assurance by DNV.

Reporting boundary

The AER includes data from our company footprint in Scotland and Southern England and also includes data from our non-regulated business (our commercial entities).

Although the regulated and non-regulated side of our business report independently of one another, our AER includes data associated with waste disposal and business travel from both the regulated and non-regulated parts of the business. As our regulated and non-regulated businesses share office buildings and company services, it would require a disproportionate amount of resource to try to separate waste disposal and business travel of the non-regulated business.

Our AER does not include data relating to our network in Northern Ireland.

In most cases, our environmental targets and objectives relate to our Scotland and Southern networks collectively. For that reason, the data you'll find in this report cover both these network areas. We consider this approach to be most helpful for our customers and stakeholders wanting to understand our environmental performance, despite Ofgem guidance sometimes asking for data to be reported on a licence level.



Statement on scope and quality of data continued

Data collection

We have continued to refine our processes for data collection over the past year. We have identified where we have gaps and where we still need to improve, but overall, our processes are running more smoothly compared with last year.

We're using an online data reporting tool (software-as-a-service) called Rio for our data collection, following regulatory guidance. The tool enables us to upload raw data to the web-based platform and the associated carbon emissions are calculated using the latest DEFRA conversion factors. For financial year 2024/25, the 2024 DEFRA conversion factors were applied.

We collect the following data per relevant carbon emissions Scope, as defined by the Greenhouse Gas Protocol:

- **Scope 1:** shrinkage (calculated using the industry-adopted Shrinkage and Leakage Model)
- **Scope 1:** transport from owned vehicles or vehicles under our control, and gas consumption from owned boilers, including energy usage from shared sites (calculated from vehicle mileage, use of fuel cards and gas invoices from our suppliers)
- **Scope 2:** purchased electricity, including energy usage from shared sites (calculated from electricity invoices from our suppliers)

- **Scope 3:** indirect emissions from our value chain (calculated from submissions by operational staff and contractors, reports from our contracted waste management company, reports generated by our travel booking system, Agiito, and from spend-based data where cost of travel has been paid through our employees' expenses).

We collect all data relevant to Scope 1 and 2 carbon emissions and such data is presented in this report. To be consistent across our leased and shared sites, all energy usage from our offices and depots is reported as Scope 1 and 2 carbon data, using the operational control approach as per Greenhouse Gas Protocol. For shared sites, we are reliant on data provided by landlords.

We have developed a F-gas register to ensure we can capture fugitive emissions from our air conditioning units. Legislation requires us to do leak tests on units of a certain size. Currently, the fugitive emissions here have not been included in our Scope 1 carbon emissions, as these are small and not material.

When it comes to Scope 3 emissions, we currently collect data in the following Scope 3 carbon categories and from the following emission sources:

- **Category 1:** Purchased goods and services: reinstatement material
- **Category 1:** Purchased goods and services: water

- **Category 2:** Capital goods: PE pipe
- **Category 3:** Fuel and energy-related activities: transmission and distribution of electricity
- **Category 3:** Fuel and energy-related activities: gas well-to-tank
- **Category 4:** Upstream transportation and distribution: contractors' vehicles/transport movements
- **Category 5:** Waste generated in operations: excavation spoil disposal, office and depot waste disposal and non-depot waste disposal
- **Category 6:** Business travel: business mileage in vehicles not owned or controlled by the company
- **Category 6:** Business travel: rail, air, ferry and car hire

While we collect several elements of our Scope 3 carbon data, we're aware this is not exhaustive and that there are many data gaps.

Last year's Limited Independent Assurance process identified a data gap that we are now addressing. For 2024/25 we have captured Scope 3, Category 6: Business travel carbon data not just from our travel booking system Agiito, but also from expense claim data. To calculate these carbon emissions based on spend we used the following method:

- spend-based GHG emissions factors from DEFRA 2021 were multiplied by the cost of travel claimed for air or rail travel. We used 0.794kgCO₂e/£ and 1.497kgCO₂e/£ for rail and air travel respectively.
- since the DEFRA factors refer to 2021 prices, we adjusted the costs for inflation by referring to the Consumer Price Index (CPI) as published by the UK's Office for National Statistics (ONS). We calculated the adjusted spend factor to be 0.82.

It should be noted that expense claim data for travel by ferry was unavailable and is deemed not to be material. This is due to the expense claim system not having a separate category for claiming ferry travel.

Data in Greenhouse Gas Protocol, Scope 3, Category 6: business travel carbon emissions has been independently assured by DNV. All the other categories of Scope 3 carbon data have not been independently assured by a third party.

This AER also includes information on biomethane connection data, innovation investment, sustainable procurement, investment in local environment, biodiversity improvement and environmental incidents. This data has not been independently assured.

Completeness of information

This year we have identified a data gap concerning our Scope 1 carbon emissions fuel use for diesel back-up generators. We have been unable to estimate the total fuel

Statement on Scope and quality of data continued

usage due to the minimal and irregular run times of the generators. They are only used in the case of power failure to a site. The emissions from these generators have been deemed immaterial.

In 2021/22, we carried out a screening exercise that estimated Scope 3 emissions make up approximately 18% of our total carbon footprint, based on financial spend. The exercise also helped us identify the order of magnitude of Scope 3 carbon emissions, so we could understand which data is most important for us to try to capture. We are expecting to revise our screening exercise at the end of the current price control RIIO-GD2.

Reinstatement services make up approximately 26% of our supplier spend and 45% of our Scope 3 carbon emissions. Therefore, we've focused on obtaining reliable data from these suppliers as a priority.

At the time of data gathering for this year's AER, we had the following data gaps relating to Scope 3 carbon emissions:

- Purchased goods: we are not yet capturing all data related to purchased goods and services and capital goods. We are capturing data from our PE pipe suppliers and from reinstatement services. In improving, we will look at the highest spend items and aim to capture or estimate embodied carbon with such goods and services.
- Reinstatement services:
 - » **Materials:** there was a small number of data gaps from contractors. For these gaps, we have estimated the data based on data from relevant months of the previous year.

» **Contractor vehicles/transport movements:** we have some small data gaps in the figures reported for contractors' carbon. This includes months where no reporting has been made for certain contractors. For these gaps, our data reporting tool Rio has estimated the figures based on the relevant month from the previous year's performance.

- Water: the carbon associated with water treatment is not included.
- Employee commute and upstream leased assets: we have not captured data relating to employee commuting and we do not currently own or lease upstream assets, so there is no emissions data report for these two areas.
- Waste in operations:
 - » **Spoil to landfill:** Although contractor data submissions are checked and flagged for any anomalies or extreme values, we do not have a process in place to verify their reported figures. Therefore, we cannot be certain of the accuracy of the reported spoil to landfill figures for 2024/25. We are looking to improve this process going forward. Any missing data from contractors is estimated from the relevant month of the previous year's data.

While we do have data gaps, we are sharing all the Scope 3 data that we are currently capturing. In identifying our current data gaps, we have an opportunity to further improve our data collection and reporting. We aim to review our Scope 3 carbon emissions screening exercise by the end of RIIO-GD2, and to continue to gather and

report on an increasing number of data over the years to come.

For our reporting on efficient resource use and circular economy, we would also like to highlight an additional area where we can improve our data capture:

- Virgin aggregate: we are looking to implement a more thorough data verification process so we can have more confidence in the data submitted by contractors going forward.

We've included the same data in this report as we've provided in the Regulatory Reporting Pack (RRP) for Ofgem, except for Scope 1 carbon emissions from energy and direct commercial vehicles, where adjustments have been made following the Independent Assurance process. It has been calculated following the Regulatory Instructions and Guidance (RIGS) from the regulator. In all cases, we use DEFRA conversion factors for the calculation of raw data to carbon dioxide equivalent emissions. The process for this is aligned with international standard, as per the Greenhouse Gas Protocol.

The data we submit in the RRP goes through an internal Data Assurance Guidance process. This involves several layers of internal checking of data provided with final approval from a responsible senior manager.

Independent assurance

We engaged independent assurance specialists DNV to provide limited independent assurance on whether our 2024/25 data is fairly presented within our Annual Environmental Report in line with this Statement on Scope and quality of data:

- Total Scope 1 carbon emissions (tonnes CO₂e)
- Total Scope 2 carbon emissions (location-based method) (tonnes CO₂e)
- Gas shrinkage (tonnes CO₂e)
- Scope 1 carbon emissions total (excluding shrinkage) (tonnes CO₂e)
- Scope 1 and 2 total (excluding shrinkage) (tonnes CO₂e)
- Scope 1 and 2 total carbon emissions (including shrinkage) (tonnes CO₂e)
- Scope 3 Category 6: Business Travel carbon emissions (tonnes CO₂e)

The limited assurance was undertaken using the DNV assurance methodology, VeriSustain™, which is based on their professional experience, the 'Greenhouse Protocol – A Corporate Accounting and Reporting Standard' (revised 2015) and international assurance best practice including the International Standard on Assurance Engagements (ISAE) 3000 – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' (revised) issued by the International Auditing and Assurance Standards Board.

The Assurance Report from DNV can be found on pages 43 to 45.



Appendices

Additional data relating to our environmental performance this year, including independent assurance of the data included in this report



DNV were engaged to provide limited assurance of Total Scope 1, Scope 2 (location-based), Scope 3 (Business Travel) and Total Shrinkage emissions data. Please see DNV's Assurance Report for further details.

Shrinkage

Total SGN leakage volumes

SGN	Actual 2021/22 (GWh)	Actual 2022/23 (GWh)	Actual 2023/24 (GWh)	Actual 2024/25 (GWh)	Forecast 2024/25 (GWh)
Low-pressure mains	356.45	342.34	328.82	314.38	
Medium-pressure mains	55.65	55.43	54.99	54.46	
Services	71.81	66.59	60.57	54.34	
AGIs	96.01	95.64	95.52	95.24	
Interference	1.83	1.88	1.80	40.55	
Total	581.75	561.88	541.69	558.97	500.78

SGN	Actual 2021/22 (tCO ₂ e)	Actual 2022/23 (tCO ₂ e)	Actual 2023/24 (tCO ₂ e)	Actual 2024/25 (tCO ₂ e)
Shrinkage (leakage, own gas use and theft of gas)	721,448	696,634	671,496	692,653

Leakage volumes by network

Scotland + SIU	Actual 2021/22 (GWh)	Actual 2022/23 (GWh)	Actual 2023/24 (GWh)	Actual 2024/25 (GWh)	Forecast 2024/25 (GWh)
Low-pressure mains	84.58	79.67	77.82	76.07	
Medium-pressure mains	15.22	15.17	15.00	14.89	
Services	18.44	17.04	15.67	14.57	
AGIs	34.79	34.61	34.81	34.71	
Interference	0.57	0.55	0.55	0.67	
Total	153.60	147.05	143.84	140.92	134.66

Southern (SO + SE)	Actual 2021/22 (GWh)	Actual 2022/23 (GWh)	Actual 2023/24 (GWh)	Actual 2024/25 (GWh)	Forecast 2023/24 (GWh)
Low-pressure mains	271.87	262.67	251.00	238.31	
Medium-pressure mains	40.44	40.26	39.99	39.58	
Services	53.36	49.54	44.90	39.77	
AGIs	61.26	61.03	60.71	60.53	
Interference	1.26	1.33	1.25	39.87	
Total	428.19	414.84	397.85	418.06	366.11

Leakage emissions

Leakage emissions are calculated using conversion factor 1,226.42 tco2e/GWh

SGN	Actual 2021/22 (tCO ₂ e)	Actual 2022/23 (tCO ₂ e)	Actual 2023/24 (tCO ₂ e)	Actual 2024/25 (tCO ₂ e)
Leakage emissions	713,473	689,106	664,344	685,537

Note - this is based on global warming potential, GWP, for unburned gas, as available from DESNZ. If this changes during the price control period, Ofgem will consult on how this will affect reported emissions.

Other shrinkage volumes







SGN	Actual 2021/22 (GWh)	Actual 2022/23 (GWh)	Actual 2023/24 (GWh)	Actual 2024/25 (GWh)
Own use gas	15.72	14.89	14.11	14.04
Theft of gas	27.82	26.35	24.98	24.85
Total	43.54	41.24	39.10	38.89

Other shrinkage emissions

Other shrinkage emissions are calculated using conversion factor 183.85 tCO2e/GWh, the conversion factor for burned gas.

SGN	Actual 2021/22 (tCO ₂ e)	Actual 2022/23 (tCO ₂ e)	Actual 2023/24 (tCO ₂ e)	Actual 2024/25 (tCO ₂ e)
Own use gas	2,879	2,718	2,582	2,569
Theft of gas	5,096	4,811	4,570	4,547
Total	7,976	7,528	7,152	7,116

Scope 1 and 2 emissions

Emissions (tCO ₂ e) Specific area	Specific area	Actual 2021/22 (tCO ₂ e)	Actual 2022/23 (tCO ₂ e)	Actual 2023/24 (tCO ₂ e)	Actual 2024/25 (tCO ₂ e)	Target 2025/26 (tCO ₂ e)
Scope 1	Commercial fleet (operational transport)	11,738	12,896	13,998	13,761	14,966
	Company cars (operational transport)	1,070	1,183	738	844	
	Gas (building energy use)	5,907	3,143	975 ¹	790	
Scope 2	Purchased electricity (building energy use)	192 (market-based)	32 (market-based)	85 (market-based ²)	-	N/A
		2,652 (location-based)	2,622 (location-based)	2,504 (location-based ³)	2,457 (location-based ³)	2,428 (location-based)
Shrinkage (leakage, own gas use, and theft of gas) 		721,448	696,634	671,496	692,653	618,583
Scope 1 total 		740,163	713,856	687,207	708,048	N/A
Scope 1 total (excluding shrinkage) 		18,715	17,222	15,711	15,395	N/A
Scope 2 total (location-based) 		2,652	2,622	2,504	2,457	N/A
Scope 1 and 2 total (excluding shrinkage) 		21,367	19,844	18,215	17,852	17,395
Scope 1 and 2 total (including shrinkage) 		742,815	716,478	689,711	710,505	635,978

¹ Scope 1 gas usage from occupied/operational sites is significantly lower this financial year compared with last year. This is due to our single biggest gas consumption item having been off due to maintenance, hence generating no emissions.

² Our market-based Scope 2 emissions from procured electricity for building use are based on certified renewable electricity from our suppliers. The majority of the electricity we use – 98.5% – is certified renewable.


³ A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data).

 Data assured by DNV (see page 43)

Scope 3 emissions

Category	Emissions source	Unit	2021/22	2022/23	2023/24	2024/25	Comment
Indirect emissions							
Purchased goods and services	Reinstatement materials	tCO ₂ e	49	4,007	5,539	5,815	We are confident we have captured all materials used and made estimates in the few instances where data was missing.
	Water	tCO ₂ e	3	10	7	8	We are collecting all data here based on our water consumption. Emissions associated with water treatment is not included. Water usage is not a material aspect of our operations.
	Total	tCO ₂ e	52	4,017	5,546	5,823	Purchased goods and services represent a category of material emissions to our business. Over GD2 we are aiming to capture more data in this category where possible.
Capital goods	PE pipe and fittings	tCO ₂ e	8,696	10,249	10,865	15,221	PE pipe is one of our main expenditures for capital goods and we have been collecting data from our suppliers since 2014. For the last three years, we have been using weight of PE pipe purchased and the DEFRA conversion factor for 'Plastic: rigid' to calculate our embodied emissions.
	Total	tCO ₂ e	8,696	10,249	10,865	15,221	Capital goods represent a category of material emissions to our business. Over GD2, we are aiming to capture more data in this category, where possible.

Scope 3 emissions continued

Category	Emissions source	Unit	2021/22	2022/23	2023/24	2024/25	Comment
Fuel and energy-related activities	T&D losses - electricity	tCO ₂ e	222	228	218	218	Transmission and Distribution (T&D) losses and well-to-tank is based on data gathered from utility bills (energy consumption) and commercial fleet and business car use. We did not capture our well-to-tank for commercial fleet and business cars in 2021 (Scope 1 vehicles).
	Well-to-tank - electricity & gas	tCO ₂ e	1,013	1,186	726	668	
	Well-to-tank - Scope 1 vehicles	tCO ₂ e	0	3,389	3,713	361	
	Total	tCO₂e	1,235	4,804	4,657	1,247	Fuel and energy-related activities have some material impact on our overall Scope 3 emissions.
Upstream transportation and distribution	Contractor vehicles/transport	tCO ₂ e	7,825	10,772	12,254	14,936	We are capturing transport data from our reinstatement contractors which make up approximately 26% of our spend profile. This year, any minor data gaps were estimated emissions based on previous month's performance.
	Contractor helicopter	tCO ₂ e	0	304	331	155	Helicopters are used to survey pipelines. In 2021, we did not capture this data.
	Total	tCO₂e	7,825	11,076	12,584	15,091	We are not capturing all data relevant here to upstream transport and distribution. It is a category with smaller materiality for our overall Scope 3 emissions.
Waste generated in operations	Excavation spoil disposal	tCO ₂ e	7	459	603	3,288	Emissions from waste in operations are based on data captured for spoil, waste from offices and depots, and other operations. Confidence in data from 2021 is low, with suspected errors in data collection.
	Office and depot waste disposal	tCO ₂ e	174	90	223	157	
	Non-depot waste incl holder demo	tCO ₂ e	894	457	3,199	2,114	
	Total	tCO₂e	1,075	1,006	4,025	5,559	Waste generated in operations have no material impact on our overall Scope 3 emissions.
Business travel 	Business mileage in vehicles not owned/controlled by company	tCO ₂ e	156	253	337	359	Business travel has increased compared with the years which were impacted by restrictions due to the COVID pandemic.
	Rail	tCO ₂ e	2	13	22	62	
	Air	tCO ₂ e	261	347	732	553	
	Ferry	tCO ₂ e	1	2	2	2	
	Hire cars	tCO ₂ e	0	94	180	135	
	Total	tCO₂e	420	709	1,273	1,111	Business travel has no material impact on our overall Scope 3 emissions. It is, however, an area where culture change and behaviour impact is important.
Employee commuting	Total	tCO₂e	0	0	0	0	We are currently not capturing employee commuting data. This category is not material to our business.
Total Scope 3							
Scope 3	Total	tCO₂e	19,302.9	31,859.1	38,950	44,052	With further improvements in our data-capture processes over 2024/25, we have higher confidence in the data we are capturing and monitoring.



Independent Limited Assurance Report

to the Directors of Southern Gas Networks Ltd and Scotland Gas Networks Ltd

Southern Gas Networks Ltd and Scotland Gas Networks Ltd (together “SGN”) commissioned DNV Business Assurance Services UK Limited (“DNV”, “us” or “we”) to conduct a limited assurance engagement over Selected Information presented in the Annual Environmental Report 2024/25 (the “Report”) for the reporting year ended 31 March 2025.

Our conclusion

On the basis of the work undertaken, nothing came to our attention to suggest that the Selected Information is not fairly stated and has not been prepared, in all material respects, in accordance with the Criteria.

This conclusion relates only to the Selected Information, and is to be read in the context of this Independent Limited Assurance Report, in particular the inherent limitations explained overleaf.

Our observations and areas for improvement will be raised in a separate report to SGN’s Management. These observations do not affect our conclusion set out above.

Selected Information

The scope and boundary of our work are restricted to the selected metrics included within the Report for the reporting year ended 31 March 2025 (the “Selected Information”), listed below:

Metrics	Reported value	Unit
Shrinkage (leakage, own gas use and theft of gas)	692,653	tCO ₂ e
Scope 1 total (including shrinkage)	708,048	tCO ₂ e
Scope 1 total (excluding shrinkage)	15,395	tCO ₂ e
Scope 2 total (location-based)	2,457	tCO ₂ e
Scope 1 and 2 total (excluding shrinkage)	17,852	tCO ₂ e
Scope 1 and 2 total (including shrinkage)	710,505	tCO ₂ e
Scope 3 emissions: Business travel	1,111	tCO ₂ e

To assess the Selected Information, which includes an assessment of the risk of material misstatement in the Report, we have used RIIO-2 Gas Distribution Price Control - Regulatory Instructions and Guidance [available here](#), RIIO 2 Environmental Reporting Guidance [available here](#), and SGN’s Statement on Scope and quality of data available from page 34 of the Report [available here](#) (collectively the “Criteria”).

We have not performed any work, and do not express any conclusion, on any other information that may be published in the Report or on SGN’s website for the current reporting period or for previous periods.



Independent Limited Assurance Report continued

Basis of our conclusion

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information; our work included, but was not restricted to:

- Conducting interviews with SGN's Management to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report the Selected Information;
- Performing limited substantive testing on a selective basis of the Selected Information to check that data has been appropriately measured, recorded, collated and reported;
- Reviewing that the evidence, measurements and their scope provided to us by SGN for the Selected Information is prepared in line with the Criteria;
- Assessing the appropriateness of the Criteria for the Selected Information; and
- Reading the Report and narrative accompanying the Selected Information within it with regard to the Criteria.

In performing these activities, we did not come across limitations to the scope of the agreed assurance engagement.

We found a limited number of non-material errors and these were corrected prior to inclusion in the Report.

Standard and level of assurance

We performed a **limited** assurance engagement of specified data and information using the 'Greenhouse Protocol – A Corporate Accounting and Reporting Standard' (revised 2015) and international assurance best practice including the International Standard on Assurance Engagements (ISAE) 3000 – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' (revised) issued by the International Auditing and Assurance Standards Board. To ensure consistency in our assurance process, we conducted our work in accordance with DNV's assurance methodology, Verisustain™, applying only the pertinent sections of the protocol relevant to the specific purpose of the activity. This methodology ensures compliance with ethical requirements and mandates planning and execution of the assurance engagement to obtain the desired level of assurance.

DNV applies its own management standards and compliance policies for quality control, which are based on the principles enclosed within ISO IEC 17029:2019 - Conformity Assessment - General principles and requirements for validation and verification bodies and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

The procedures performed in a limited assurance engagement vary in nature and are shorter in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained if a reasonable assurance engagement had been performed.

Responsibilities of the Directors of SGN and DNV

The Directors of SGN have sole responsibility for:

- Preparing and presenting the Selected Information in accordance with the Criteria;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the Selected Information that is free from material misstatements;
- Measuring and reporting the Selected Information based on their established Criteria; and
- Contents and statements contained within the Report and the Criteria.

Our responsibility is to plan and perform our work to obtain limited assurance about whether the Selected Information has been prepared in accordance with the Criteria and to report to SGN in the form of an independent limited assurance conclusion, based on the work performed and the evidence obtained. Our Independent Limited Assurance Report represents our independent conclusion and is intended to inform all stakeholders. DNV was not involved in the preparation of any statements or data included in the Report except for this Independent Limited Assurance Report.



Independent Limited Assurance Report continued

Our competence, independence and quality control

DNV established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV did not provide any services to SGN in the reporting period that could compromise the independence or impartiality of our work. Our multi-disciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

DNV Supply Chain and Product Assurance

DNV Business Assurance Services UK Limited is part of DNV – Supply Chain and Product Assurance, a global provider of certification, verification, assessment and training services, enabling customers and stakeholders to make critical decisions with confidence.

Inherent limitations

DNV’s assurance engagements are based on the assumption that the data and information provided by SGN to us as part of our review have been provided in good faith, is true, complete, sufficient, and authentic, and is free from material misstatements. Because of the selected nature (sampling) and other inherent limitations of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. The engagement excludes the sustainability management, performance, and reporting practices of the SGN’s suppliers, contractors, and any third parties mentioned in the Report. We did not interview external stakeholders as part of this assurance engagement. We understand that the reported financial data, governance and related information are based on statutory disclosures and Audited Financial Statements, which are subject to a separate independent statutory audit process. We did not review financial disclosures and data as they are not within the scope of our assurance engagement. The assessment is limited to data and information in scope within the defined reporting period. Any data outside this period is not considered within the scope of assurance. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Limited Assurance Report.

Disclaimers

The assurance provided by DNV is limited to the selected indicators and information specified in the scope of the engagement. DNV has not conducted an assessment of the reporting organisation’s overall adherence to reporting principles or the preparation of the report. Therefore, no conclusions should be drawn regarding the reporting organization’s compliance with reporting principles or the quality of the overall report. The assurance provided by DNV is based on the selected indicators and information made available to us at the time of the engagement. DNV assumes no responsibility for any changes or updates made to the indicators or information after the completion of the assurance engagement.

For and on behalf of DNV Business Assurance Services (UK Limited)

London, UK
26 September 2025

Digitally signed by
Holly Wallis-Copley
Lead Verifier
DNV Business Assurance
Services
UK Limited

Digitally signed by
Paul O’Hanlon
Technical Reviewer
DNV Business Assurance
Services
UK Limited



SGN
St Lawrence House
Station Approach
Horley, Surrey
RH6 9HJ

www.sgn.co.uk
[0800 912 1700](tel:08009121700)
customer@sgn.co.uk

[linkedin.com/company/sgn](https://www.linkedin.com/company/sgn)
[facebook.com/sgngas](https://www.facebook.com/sgngas)
[@SGNgas](https://twitter.com/SGNgas)