



SGN

Your gas. Our network.

RIIO-GD2

Stakeholder Report 2022/23



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1 Welcome summary

1.1 Introduction from Mark Wild OBE, CEO



It's an inspiring and challenging time to work in the energy sector. The gas networks play a crucial role in the communities they serve and through our obligation to help the UK transition to Net Zero. In my first months as CEO for SGN, I have been impressed by the dedication of our people, especially our engineers on the front line.

I joined SGN at a time of great sadness, days after an explosion in Galpin's Road, south London, which resulted in a fatality and injuries to others. The family involved and everyone affected by this incident naturally remain in our thoughts. The cause of the explosion is subject to an ongoing investigation by the authorities which SGN is continuing to support.

Following this, the year of 2022/23 has been particularly challenging, not just for SGN but for utilities across the entirety of the UK. Our teams have worked tirelessly, day and night through a tough winter to look after millions of customers across both our Scotland and southern networks.

Despite our best efforts to deliver all our commitments, we were unable to achieve our **97%** standard of service for controlled gas escapes in both our networks and for uncontrolled gas escapes in our southern network.

This is not a situation SGN has been in before, and it is not one we take lightly. The company has identified a root cause, particularly in our southern network, of a shortage in resource in very challenging market conditions, which we have now taken actions to resolve. I am confident that our short-term recovery is now evolving into long term stability that will prevent a reoccurrence of the challenges we faced over the course of 2023.

To further support our recovery, we have put a specific focus on the sufficiency of operational resources process this year.

Against this backdrop, safety remains our top priority for our people and our customers. We want SGN to be a zero-harm business. Our safety record has been good, but we are committed to making it great. As a key part of the UK's critical national infrastructure, we are also taking action to make sure our cyber security capability continues to be robust.

Despite these challenges we continue to work towards our goal for Net Zero, and as part of that, we strongly believe a 'whole system approach' will be key to developing the UK's hydrogen economy.

Our commitment to helping establish hydrogen heating in homes as a reality continues with the delivery of our H100 Fife project. This is due to go live in 2024 and will be the first **100%** green hydrogen-to-homes zero carbon network anywhere in the world, providing important evidence to help the UK decarbonise home heating.

We are also assessing the viability of repurposing the local transmission system from natural gas to 100% hydrogen. These are just two significant projects that could change how we use energy today.

“ We want SGN to be a zero-harm business. Our safety record has been good, but we are committed to making it great. ”



1.2 Key highlights

£402m
(nominal)



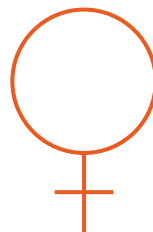
invested in
our networks
in 2022/23

Local Transmission
Systems (LTS)
Futures reopener
approved for



£23.8m

40%



female intake of
frontline trainees and
apprentices in our
recent recruitment drive



24 Collaborative
partnerships to
support vulnerable
customers, **15** of
which SGN lead

Over 360 customers have signed up
with interest in participating in our
H100 Fife project to connect to a
hydrogen network



Our Scotland network
is the **number one**
network for customer
satisfaction for the
seventh year running

118,731

vulnerable customers
offered assistance or
advice in 2022/23

We've reduced
our Total Carbon
Footprint (TCF)
during 2022/23 by

2.3%



£1290.6m
(nominal)

turnover in 2022/23

4,816

new gas connections
made during 22/23



Gas Escapes Attendance
in 22/23

Scotland

97.2% within
one hour

96.6% within
two hours

Southern

92.9% within
one hour

91.9% within
two hours



We're delivering
the equivalent of

259,000

homes with green gas



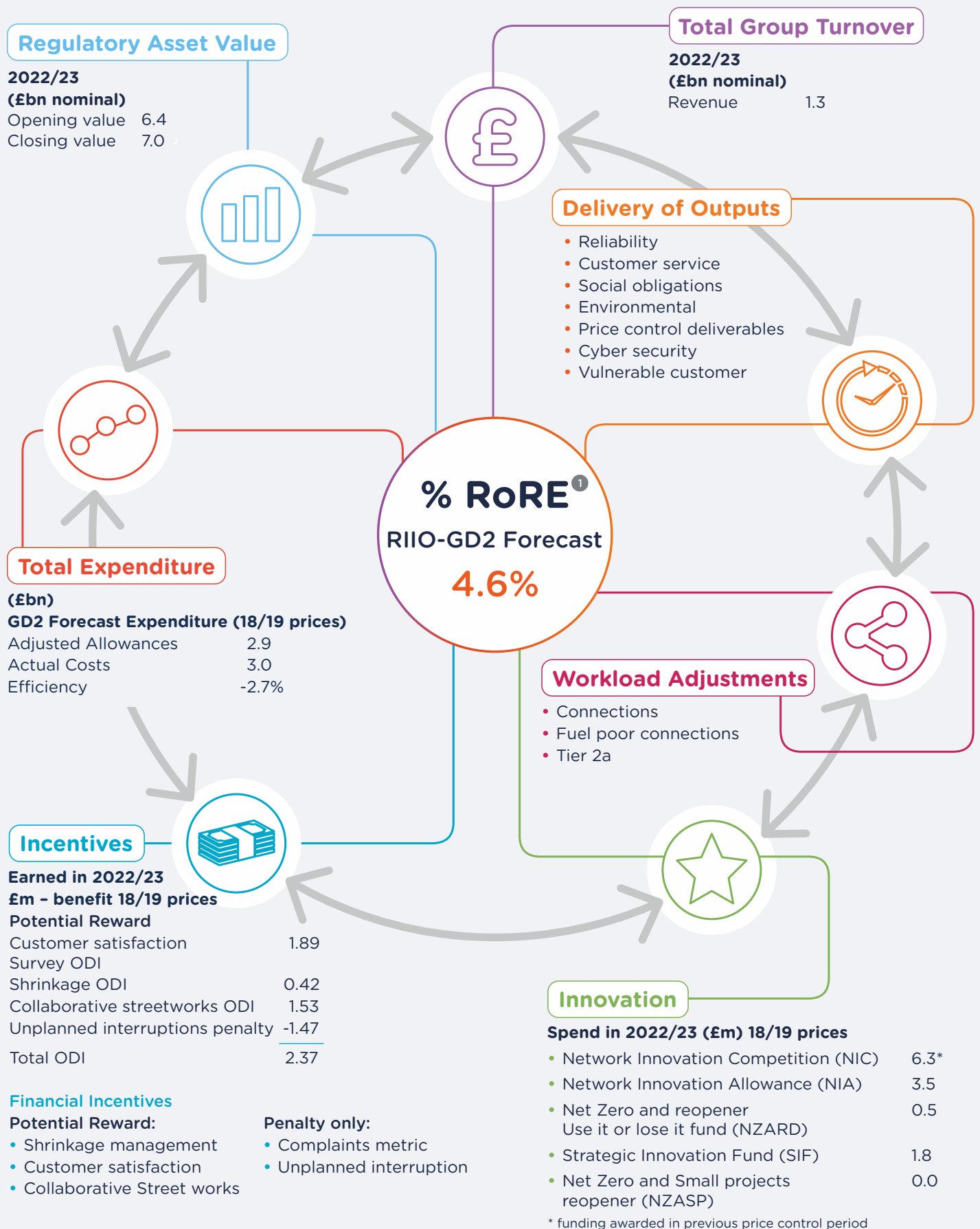
External
Awards
2022/23

This
year
we
achieved





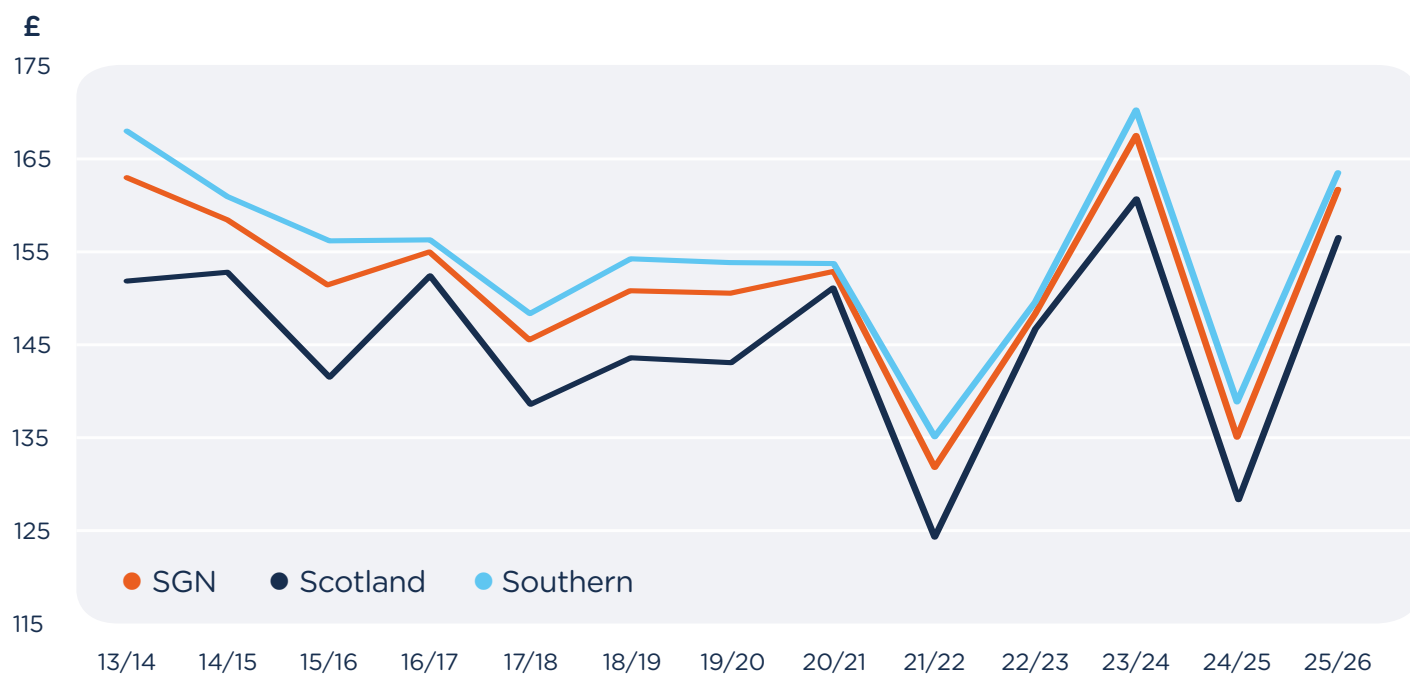
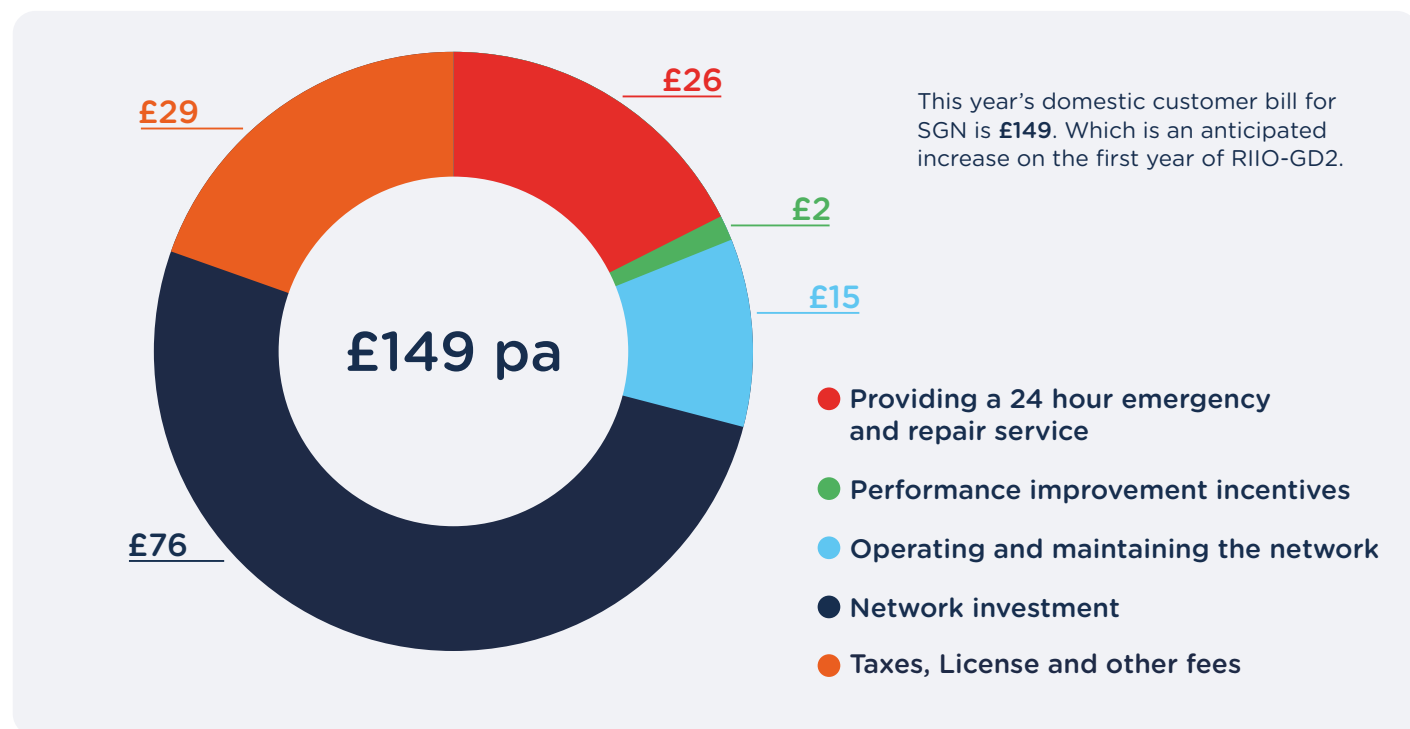
1.3 Our performance



¹ Return on Regulatory Equity - Operational Performance (Notional basis)



1.4 Customer bill impact



Note: Customer bill impacts are presented in nominal prices

What it means:

The GDN share of customer bills fell by approximately 14% at the start of RIIO-GD2 reflecting the new price control final determination. In the second year of RIIO-GD2, bills increased by **13%**, with the main factors being:

- Approximately half this increase was due to Inflation (assumed at the time of setting tariffs of **6.3%**).
- Material increases in shrinkage costs which are driven by wholesale gas prices (**4%**). The inclusion of the CMA remedy for the reduced Ongoing Efficiency (**1.8%**) customer bill impact.



2 Delivering Totex – second year of RIIO-GD2

Our in year Totex position continues to be dominated by timing. Whilst we are forecasting to overspend our Totex allowances over the RIIO-GD2 period, the current year total Totex expenditure was 11% under allowances. This is a reduction in the total underspend compared to the first year of RIIO-GD2 of 19%. Whilst the underspend has reduced, the challenges in increasing the volume of delivery in the southern region remain. In particular, we continue to experience a competitive labour market in our southern region where it is a challenge to attract, train and retain staff to deliver the workloads we need to deliver. This, combined with the cost pressures we are experiencing for the workload being delivered are leading to the forecast overspend.

As shown in the table below overall Totex expenditure is tracking at 11% against allowances in the second year of RIIO-GD2 - 18% in Scotland and 8% in southern. We have put in place measure to catch this up over the remaining years of GD2 and expect to deliver the majority of outputs but recognise that there is now some risk in delivery of southern repex in particular

- **Delays in project delivery** - following the delays we experienced in the first year of RIIO-GD2, key projects are now progressing rapidly. Whilst we remain behind the original schedule proposed in the business plan we are confident that will deliver out major projects in the remaining years of GD2.
- **Lower customer driven workloads** - We continue to see low demand for connections over the last year. Last year we reforecast our connection numbers and volumes remain low in year 2.
- **Repex delivery** - Delivering the volume of repex workload we need to deliver in southern to achieve our GD2 targets remains very challenging. This is due to the limited resource availability and strong competition with other the delivery of other infrastructure. This is in stark contrast to repex delivery in Scotland where we have been able to maintain over-delivery against our internal linear target for the second year in a row and are in a very strong position to deliver the GD2 target.
- **Challenging recruitment market** - The last year has been particularly challenging in terms of recruitment and retention of staff in our southern licence area. Strong competition for resource from other utilities and construction projects combined with long training times for highly skilled safety critical roles have been a significant challenge. We have responded and significantly increased recruitment and training in our southern network.
- **Focus on emergency standards** - Due extremely challenging recruitment market in our southern licence we were unable to maintain the 97% standard for responding to an uncontrolled gas escape in one hour and controlled gas escape in two hours. This is the first time we have failed this standard and was despite drawing on all available contingency measures we had available to us. As a result, our opex expenditure in southern was 4% over the allowances. Since the winter we have been recruiting, training, and putting in place measures to make sure it is a one-off event and that we are in a better place for next winter. In Scotland we were also unable to maintain the standard of responding to a controlled gas escape within in two hours 97% of the time. This we due to an extremely high volume of emergency calls during a four-day cold period in December. We were able to regain the controlled standard, but the low call volumes after December made it mathematically impossible to recover from that four-day extreme period.

£m 18/19 prices	SCOTLAND			SOUTHERN			SGN		
	Actual	Allowance	Variance	Actual	Allowance	Variance	Actual	Allowance	Variance
Opex	66	76	13%	132	127	(4%)	198	202	2%
Repex	58	64	10%	148	176	16%	206	240	14%
Capex	42	63	33%	67	74	10%	109	137	21%
Totex	166	203	18%	347	377	8%	513	579	11%

Table 1 Totex performance



2.1 Delivering the RIIO-GD2 business plan

2022/23 has been a tough year. We are now focused on recovery and rebuilding. We are concentrating on re-establishing the firm foundations from which we deliver and then improve. We have placed intense focus in our southern licence area on rebuilding our resources, both in our direct labour frontline teams and our contracting resource, which have affected two of our biggest delivery challenges - opex and repex.

We have very different outlooks in southern and Scotland. In Scotland we are broadly on track to deliver our workloads for both capex and repex, we continue to be able to progress improvements in efficiency and we currently forecast we will outperform allowances by **7%** (£66m) in 18/19 prices over GD2. This is an increase on the **4%** (£39m) outperformance that we forecast in last year's strategic commentary.

In southern, by contrast, the position has fundamentally reversed. In last year's strategic commentary, we forecast that we would be able to outperform totex by **1.8%** (+£34m) in southern. We now forecast that we will have an under-performance of **8%** (-£144m).

This swing in expected outcomes in southern is being driven by a step change in our forecast southern operating cost from **£671m** (2021/22 forecast) to a current forecast of **£737m**. This increase has been driven by the need to rebuild our southern direct workforce in response to the challenges we experienced over the last regulatory year.

The second step change is then our forecast southern repex costs which have increased from **£877m** (2021/22 forecast) to **£964m**. This has increased a **1.1%** variance to allowances (2021/22 forecast) to a **10%** adverse variance. This increase in forecasted costs has been driven by the recognition that the measures implemented over the last year to increase repex delivery have been somewhat unsuccessful and that we need a step change in delivery in order to keep pace with our internal targets. This step change will require us to complete more complex and technically difficult jobs that will be more time consuming to deliver and come at higher cost. We are going to have to attract new contractor resources into the market and we will need to increase the pool of skilled labour available, training them with the right skills to undertake this challenging work. We have started this journey but it will take time with delivery ramping up to 2024 and the final year of GD2.

Table 2 - Totex performance by year

£m 18/19 prices inc Real Price effects (RPEs)	SCOTLAND							
	21/22	22/23	23/24	24/25	25/26	RIIO-GD2 Total	RIIO-GD2 Allowance	Variance
Opex	61	66	81	89	69	366	377	3%
Repex	50	58	61	63	60	292	318	8%
Capex	37	42	67	65	50	261	290	10%
Totex	147	167	209	217	179	919	985	7%

£m 18/19 prices inc RPEs	SOUTHERN							
	21/22	22/23	23/24	24/25	25/26	RIIO-GD2 Total	RIIO-GD2 Allowance	Variance
Opex	113	132	177	161	153	737	653	(13%)
Repex	149	148	178	225	264	964	877	(10%)
Capex	47	67	82	80	73	349	377	7%
Totex	309	347	438	467	490	2,050	1,906	(8%)



£m 18/19 prices inc RPEs	SGN							
	21/22	22/23	23/24	24/25	25/26	RIIO-GD2 Total	RIIO-GD2 Allowance	Variance
Opex	174	199	258	250	222	1,103	1,031	(7%)
Repex	199	206	239	288	323	1,256	1,195	(5%)
Capex	83	109	149	145	124	610	666	8%
Totex	456	513	647	684	669	2,969	2,892	(3%)

2.2 Company strategy

As we began our journey into RIIO-GD2 we implemented several initiatives that will drive positive change throughout the company.

1 Supporting our most vulnerable customers

During the second year of this five-year strategy, our customers faced unprecedented levels of hardship. The health, wellbeing, and financial challenges many experienced during the pandemic have now been exacerbated by the cost-of-living crisis.



We knew this winter was going to be exceptionally challenging for our communities. Ahead of the winter, our partners came to talk to leaders of our business about the impact they were already seeing within their organisations and to prepare our operational teams for the increased volumes of customers in energy crisis that they would encounter in the months to come. The health, wellbeing and financial challenges experienced during the pandemic have now been exacerbated by increased energy costs and the cost-of-living crisis impacting the living conditions for many as they became no longer able to afford to stay well and warm in their homes. It's understood there are now one in three households in the UK living in fuel poverty.

In response to the increased need in our community, we sought counsel from our strategic vulnerability stakeholder group and our partners throughout the year to understand the real-time impact of the crisis on our communities. This invaluable insight has enabled us to continue to provide direct support to those who need it most, where and when they need it. Since the start of RIIO-GD2, we have created innovative connections between communities and strategic partners to provide meaningful help to vulnerable households.

As a result of this collaborative approach, as we close year 2 of RIIO-GD2, we've progressed **51** initiatives designed to support vulnerable households to use energy safely, efficiently, and affordably by utilising the Vulnerability and Carbon Monoxide Allowance (VCMA). This year we were able to help **118,731** vulnerable households through our VCMA initiatives, which brings our RIIO-GD2 total to date of **170,870** households helped to use energy safely, efficiently, and affordably. These vulnerable households have accessed over **308,545** unique support services achieving at least **£14.3m** in social value, although we anticipate based on actual delivery for the actual social return on investment to be significantly higher.

Of the **24** collaborative Gas Distribution Network (GDN) projects SGN continues to lead on **15** key strategic partnerships including those with Marie Curie, Scope, Citizens Advice and Age UK. Of the **£16.2m** (18/19 prices) allowances awarded for RIIO-GD2 we have committed **£13.0m** to initiatives so far.



Case Study

Safe and Warm Community Scheme Centre for Sustainable Energy

Grassroots community organisations, such as addiction support groups, faith groups and play centres, are seeing record levels of demand from people struggling to make ends meet during the cost-of-living crisis. This is even more prevalent in areas of extreme poverty.

These small organisations are typically well-respected and trusted within their local area. By supporting grassroots organisations, we have a genuine opportunity to reach people in need within trusted community settings through trusted community leaders.

These households may not feel comfortable talking to a stranger about energy or money issues, so wouldn't access help from more mainstream sources of support such as government organisations. And those who had tried to approach trusted agencies for support were finding the organisations were overwhelmed with demand and wait times were too long for them to receive tangible help.

Yet often grassroots organisations don't have the capacity, skills or access to appropriate referral pathways and find it difficult to tap into potential

funding streams such as the Vulnerability and Carbon Monoxide Allowance (VCMA). The Centre for Sustainable Energy (CSE) is a national charity supporting local organisations across the UK to end the suffering caused by cold homes, so it's perfectly placed to connect us to groups who could benefit from our support.

Our Safe and Warm Community Scheme enables smaller organisations to access VCMA funding and skills that can help them lift hard-to-reach households out of fuel poverty and provide energy safeguarding support. Through CSE, we're upskilling the grassroots organisations and broadening the support they're able to deliver within the community with **41** frontline workers trained so far.

Our scheme began in November 2022, and we've established partnerships with **17** grassroots organisations so far. Increasing the capacity for grassroots organisations to support their communities within their existing facilities is also preventing other local services from being overwhelmed at a time when they're already stretched.

Key 2022/23 achievements



Households supported:
398



Energy advice sessions:
363



Emergency fuel and food vouchers:
315



CO safety conversations:
207



PSR registrations:
263



Benefit checks:
94



By supporting grassroots organisations, we have a genuine opportunity to reach people in need within trusted community settings through trusted community leaders.



2 Returning home safely

Safety remains a top priority for SGN at all times. Under the strain of a particularly challenging year, we were unable to match last year's achievement of **194** safe days¹. In our 2021/22 strategic commentary we stated our target for 2022/23 was **210** safe days, unfortunately for 2022/23 our performance dropped, and we achieved **169** safe days. As 22/23 progressed we recognised that it was important for us to re-emphasise the importance of safety across the organisation.

We have made a commitment to make year on year improvements, driving safety performance and promoting a healthy safety culture. Our ultimate goal is zero harm and to reach and maintain level 5 in safety maturity within the Hudson Model². We have a significant way to go as an organisation to achieve this and following a difficult year for SGN, our interim goal is to reach a solid level 3, as assessed by independent experts, by the end of the current financial year (23/24). To help us achieve this, we have increased our dedicated resource to focusing on improving safety culture and bring about safety-focused change. We have devised and launched a robust Safety Improvement Plan (SIP) to get us back to achieving a great standard.

3 Innovative future

Amid our dedicated efforts to maintain a continuously safe and reliable network we are also striving for positive change that will secure a future for our customers. Our biggest effort to achieve this lives within our H100 Fife - Hydrogen neighbourhood project.

This year we have continued to progress the project transitioning to the construction stage for the electrolyzers and storage tanks, appointing contractors to deliver the distribution network, and gaining confidence from our customers. We are pleased to say that we have exceeded our target and currently have **367** customers who are opting to take part in this first of its kind trial. These customers have signed up with interest in participating in the project to connect to a hydrogen network.

The cost of delivering this first-of-a-kind project has significantly exceeded the original funding of **£25.7m** and our shareholders have committed to fund up to **£67m**.

Our second flagship project is LTS Futures, this has clear Phase 1 of the project plan and is progressing through Phase 2. This project will demonstrate the potential for repurposing the existing Local Transmission System (LTS) to carry hydrogen by carrying out a live trial on a decommissioned stretch of the network between Grangemouth and Granton (on the outskirts of Edinburgh).



4 Improving our environment

Our commitment to improving our environment through RIIO-GD2 and beyond has continued through 2022/23 as we remain on track to deliver a **25%** reduction of our scope 1 and 2 emissions over the course of the price control. We have also successfully completed all biodiversity surveys as planned for 2022/23 (in total **50** across southern and Scotland) and will continue this good progress in 2023/24. In addition, we have carried out some improvement projects, the biggest one being Oban where we have carried out extensive woodland management, including the installation of reptile hibernacula, bird boxes, and facilities for otters, squirrels and other wildlife. This site has also had fallen trees cleared and many varieties of new trees planted.

This year we have also installed our first roof mounted solar PV array within the RIIO-GD2 programme; it is producing very well and exceeding expectations. Over the summer of 2023/24, we will be installing at another three depots/offices, starting with the highest electricity consumers, and working our way down until all are completed.

Some other environmental achievements for 2022/23 include:

- Top **8%** of international companies on engagement with our supply chain on climate change – giving us a score of 'A' in our Carbon Discloser Project (CDP) submission (this is above the global average for the oil and gas industry).
- The Carbon Trust Route to Net Zero certification, in the tier Taking Steps. This shows our commitment to continuous reduction of our total carbon footprint over the years 2019/20, 2020/21 and 2021/22, and that we have good practices in managing and monitoring our carbon emissions.
- We are publishing our first TCFD (Taskforce for climate related financial disclosures) report as part of our Annual Report 2022/23. This shows how we identify, assess, and manage climate related risks and opportunities in SGN and what we can do to improve.

¹ A safe day is where there is no loss time injuries to colleagues or contractors, there are no injuries to members of the public, no cable strikes, no road traffic collision and security breaches do not occur.

² The Hudson Ladder is described by Hudson as an evolutionary ladder, which plots the development of an organisation's safety culture.



However, whilst we have managed to achieve many positive environmental outcomes this year, it has not been without challenge. We are currently tracking below our forecasted position for our property initiatives of installing renewables, Solar PV, BMS and LED lighting, but remain confident we will achieve our RIIO-GD2 targets at the end of the price control period.

We have continued to find it challenging to source appropriate EVs, and while our aim is the future proof all our sites and install charging points for our commercial fleet, this is still a work in progress as we work to source the necessary power within our depots to facilitate our target number of EVs.

We have also faced challenges with supply chain issues and delivery of vehicles which is a continuation of the issues we faced in the first year of RIIO-GD2.



5 Purpose, vision, and values

Our values have always demonstrated what we stand for as a company and help guide us to achieving our vision and goals. They not only dictate the way we behave but help us build trust, so we can thrive as both individuals and as a company. This is a notion we hold high importance to and therefore wanted to ensure we reflected for RIIO-GD2 whilst also ensuring authenticity was preserved.

Once formed, it is important values aren't just another set of words, but people live up to them and are held to account if not. So, this year all our people's performance will be reviewed against these refreshed values and every potential new employee will be assessed against them. Simply put, they represent the way we do things in our company.

Our purpose

Serving our communities by keeping everyone safe and warm

Our vision

To give our customers the best clean energy experience

Our Values for RIIO-GD2 are detailed here:



3 Output summary

Through the second year of RIIO-GD2 we have delivered the majority of our outputs and are maintaining good delivery during what has been a tough year.

Our emergency response time is discussed in more detail, however it is shown in our outputs table as red for Scotland on the controlled gas escapes and red for southern on both controlled and uncontrolled as we were unable to deliver the licence obligation as we reached the end of year 2. This is not something we have experienced before, and we have taken actions to minimise the risk of this reoccurring in the future.

For unplanned interruptions, which is also discussed in more detail in section 5.3, An isolated event on a multi-occupancy building which resulted in a long duration unplanned interruption has driven our average for the year in our Scotland network over the excessive deterioration level, meaning we are now exposed to the penalty.

We have now submitted a report requesting a waiver on the penalty due to the circumstance that has led us to this position.

Our Tier 1 mains and service PCD has decreased from Amber in year 1 to red for our southern network as we were unable to achieve our internal linear target for year 2 of RIIO-GD2. There are many factors that have driven this underperformance in year 2 which are discussed in section 5.3.

On commercial fleet EV PCD, we are currently on a red status due to the continued slowed delivery of electric vehicles, and other factors such as the existing lifecycle of vehicles, availability of charging points and other factors which are discussed in section 6.

With our other environmental outputs, although for the year of 2022/23 we are on target for our scope 1 and scope 2 excluding shrinkage emissions we are currently in an amber status due to the risk we currently have with the commercial fleet, a key element of scope 1. We are currently tracking above our emissions target on commercial fleet and will monitor this closely through the remaining years.

Also included under licence obligations (LO) is Holder demolition which is a continuation of a 16-year programme which began in RIIO-GD1. We are delivering well with this output in both networks.





3.1 Output deliverables

- Red:** Not delivering a licence obligation, significant under-delivery on reputational commitments or significant penalty on financial incentive (amber is not applied to Licence Obligations).
- Amber:** Marginal under-delivery on reputational commitments or marginal penalty on financial incentive (amber is not applied to Licence Obligations).
- Green:** Delivered Licence Obligation, reputational commitments or positive outcome on financial incentive.

OUTPUTS SUMMARY		SCOTLAND	SOUTHERN
Meeting the needs of consumers and network users			
LO	Consumer vulnerability minimum standards	●	●
LO	Guaranteed Standards of Performance (GSOPs)	●	●
LO	Emergency response time (Uncontrolled)	●	●
LO	Emergency response time (Controlled)	●	●
LO	Digitalisation Strategy and Action Plan	●	●
LO	Annual Environmental Report	●	●
LO	Holder Demolition	●	●
ODI-F	Customer satisfaction survey	●	●
ODI-F	Complaints metric	●	●
ODI-F	Unplanned interruptions	●	●
ODI-F	Network Asset Risk Metric	●	●
ODI-F	Deliver an environmentally sustainable network	●	●
ODI-F	Shrinkage and environmental emissions	●	●
ODI-F	Collaborative streetworks	●	●
ODI-R	Consumer vulnerability reputational incentive	●	●
ODI-R	Fuel Poor Network Extension Scheme	N/A	N/A

OUTPUTS SUMMARY		SCOTLAND	SOUTHERN
Deliver an environmentally sustainable network			
ODI-R	Shrinkage and environmental emissions	●	●
ODI-R	Business Carbon Footprint (BCF) reporting	●	●
PCD	Commercial Fleet EV PCD	●	●
PCD	Gas escape reduction	●	●
PCD	Biomethane improved access rollout	●	●
PCD	Intermediate pressure reconfigurations	●	●
PCD	Remote pressure management	●	●

Maintain a safe and resilient network			
PCD	Repex - Tier 1 mains replacement	●	●
PCD	Repex - Tier 1 services	●	●
PCD	Capital projects	●	●
PCD	NARMS	●	●
PCD	Cyber resilience Operational Technology (OT)	●	●
PCD	Cyber resilience IT	●	●



4 Financial performance

Return on Regulatory Equity (RoRE) is calculated for each network at the end of each year and is an estimate of the average annual return that shareholders could expect over the five-year price control period.

NETWORK	SCOTLAND	SOUTHERN	SGN
Additional Returns (£m 18/19 prices)	Five-year average	Five-year average	Five-year average
Totex outperformance	13.3	(28.7)	(15.5)
Incentive income	0.3	0.9	1.2
Other (eg innovation contributions)	(0.3)	(0.8)	(1.1)
Less sharing/tax	(6.8)	14.4	7.6
Average additional income	6.5	(14.3)	(7.8)
Additional return on equity			
Average additional returns	6.5	(14.3)	(7.8)
Equity (based on notional gearing)	708	1,557	2,266
Additional returns	0.9%	(0.9%)	(0.3%)
Base cost of equity	4.97%	4.97%	4.97%
Total RoRE - Operational Performance (Notional Basis)	5.9%	4.1%	4.6%

NB: RoRE is provisional prior to Regulatory Financial Performance Report sign off in Sept 2023





5 Positive impact

We've gone above and beyond to be the number one gas network for customer satisfaction in Scotland for the seventh year running. Our southern network, despite being in sixth position, received a healthy score above 9, and we continue to focus on improvements that we can make to improve our scores and deliver our works to the highest levels which keep our customers happy.

REOPENER	SCOTLAND		SOUTHERN		BASE TARGET (*)
Scores out of 10	2021/22	2022/23	2021/22	2022/23	
Emergency work	9.54	9.62	9.33	9.43	9.37
Planned work	9.20	9.09	9.08	8.88	8.51
Connections work	9.11	9.18	8.67	8.74	8.38
Average	9.28	9.30	9.03	9.02	8.75

(*) The base targets reflected here were updated for RIIO-GD2 where they were updated from targets from the 2020/21 values.

Vulnerability and Carbon monoxide allowance (VCMA)

This is the second year in which we have had the Vulnerability and Carbon Monoxide Allowance (VCMA), a dedicated use it or lose it (UIOLI) fund designed to support GDNs deliver commitments in their respective network areas over the five-year price control period.

In our second year of RIIO-GD2, SGN moved from the planning and mobilisation phase into considered delivery to support vulnerable customers to use energy safely, efficiently, and affordably during a cost-of-living crisis where many more customers were finding themselves in fuel poverty and unable to maintain a safe and warm home.

As we close year 2 of RIIO-GD2, by utilising the VCMA we've been able to make a significant impact at a time when we've seen customers in energy crisis.

Our approach has been to build impactful partnerships that support those vulnerable customer groups most at risk and those communities in most need using data and stakeholder insights to help us prioritise. As a result of this targeted approach, we've been able to support **170,870** vulnerable households over the last two years, and in this year alone we were able to help **118,731** households with much needed help. These vulnerable households have accessed over **308,545** unique support services, including energy advocacy, benefits checks and the repair or replacement of essential gas appliances. Working with our social value measurement partner Sia Partners, we understand that our portfolio has achieved at least **£14.3m** in broader social value.

Further information on collaborative VCMA projects can be found here

<https://www.sgn.co.uk/sites/default/files/mediaentities/documents/2022-06/VCMA-GDN-Annual-Report-0622.pdf> and the SGN VCMA Annual report is available <https://www.sgn.co.uk/sites/default/files/mediaentities/documents/2022-07/SGN-VCMA-Annual-Report-2022.pdf>

Carbon Monoxide (CO)

Building on year 1, we've successfully delivered two CO awareness campaigns collaboratively and in partnership with Policy Connect – APPCOG this year focusing on changes in legislation for households.

We're also leading on GDN VCMA-funded projects focussing on engaging young people with lifesaving advice to take home to their communities. These partnerships include working with Bonanza Creative for our primary schools' programme, the Scouts for all scouting groups and scouting volunteers and more recently the Game Over campaign targeting teens and young adults especially those at university.

We've continued to embed CO training and awareness sessions in our VMCA collaborative and company specific initiatives designed to support households in need. This focus on training frontline workers, partners who work with vulnerable people including health workers, scout volunteers and charity workers has enabled us with Gas Safe Charity train **1,020** people on how to keep vulnerable people safe from CO harm.

In our first year, we believe we've had over **10,276,157** interactions with customers with information about CO. This year, as we've ramped up our programme, we've had **43,852,680** interactions with customers in our network areas, an increase of **327%**. Using a standardised retention rate, we're proud to report we've effectively engaged at least **1,453,752** customers within our network areas with our CO awareness raising activity this year, contributing to a total of **2,297,833** over RIIO-GD2.

To ensure we're making a difference with our engagement we have a GDN common CO Awareness Survey, which checks customers' pre and post conversation awareness and asks the customer to self-assess their confidence in understanding how to avoid CO harm. Our impact is significant with the self-assessment scores for SGN move from **5.67** to **8.64** well above the industry mean and shows an increase in CO awareness of **52%**.



Case Study

The Evolution of Age Scotland and Scope


This year we have supported the expansion of two of our core partnerships, Age Scotland, and Scope. Our Age Scotland partnership has progressed to a national level, now including Age Cymru and Age UK, and at Scope we have expanded the partnership to include all GDNs to provide support nationwide to disabled people through the service.

This year, it's about coming together in a joined-up way as gas networks and the regional Age UK charities to share learnings and help more older people stay safe and warm at home. Together, we're building capacity and our service is maturing more quickly. By sharing our learnings across organisations, we're able to set up the regional services more efficiently, meaning we've been able to help people more quickly through the expanded service.

With Scope, in expanding the partnership to include all GDNs, we've opened up access to the Disability Energy Support (DES) to disabled people nationwide and aim to support **700** people per year through the service.

We've established a trusted referral route for engineers from all networks to refer disabled people for independent support to manage their energy and water needs, as well as a gateway into other Scope support services. In creating an accessible route for disabled people to access clear information and support on energy issues, we've saved disabled households an average of **£485.94** by reviewing benefit and grant entitlements. Through the partnership, we've also provided **5,331** customers with carbon monoxide information through both the DES team and the charity's website. This interest in carbon monoxide safety advice has led us to carry out baseline insights to ensure we understand the needs of disabled people in avoiding carbon monoxide harm. This partnership is particularly needed in the current climate with disabled people being one of the groups most impacted by the pandemic and cost-of-living crisis. The DES team has seen an 80% increase in the total number of people requesting appointments this year, compared with 2021/22.

Key February 2023 to March 2023 achievements

					
	Households reached: 35	Energy advice sessions: 35	CO awareness conversations: 31	PSR registrations: 19	Benefits advice: 16
	Households reached: 4,958	Energy advice sessions: 422	CO awareness conversations: 348	PSR registrations: 141	Benefits advice: 1,912
	Households reached: 11,871	Energy advice sessions: 573		PSR registrations: 275	Benefits advice: 11,298







“ This winter 9.6 million older people were worried about affording to heat their homes. Thanks to GDN funding, Age UK is helping thousands of vulnerable older people access unclaimed welfare benefits to help with energy costs. ”

Hannorah Lee, Director of Partnerships, Age UK



Key 2022/23 achievements

SCOPE
= Equality for disabled people

 SCOPE = Equality for disabled people	 Households reached by a DES adviser: 1,963	 Energy advice sessions: 1,963
 CO awareness conversations: 1,963	 PSR registrations: 1,256	 Benefits advice: 1,963

“ You listened, treated me with respect, believed me and didn't rush me. You offered relevant info for the issue I had called for which I also urgently needed but did not dare hope for, due to experience with other local and advice services. ”

DES beneficiary



5.1 Customer complaints

Our Scotland network continues a strong performance for complaint handling, with a 2022/23 metric performance score of **1.71**. Across RIIO-GD2 we aim to maintain a competitive position for Scotland's complaint handling performance as well as increase southern's position by reducing the metric performance score. To achieve this, we plan to continue reducing the number of complaints coming into the networks and increase our resolutions in D+1.

In RIIO-GD2 complaints performance is incentivised through penalties for poor performance, as it was during RIIO-GD1. However, the difference in RIIO-GD2 is a reduced penalty threshold from **11.57** to **5.00**. If a network's weighted complaint score calculation exceeds **5.00** then a penalty will be imposed for poor performance. The increase in emergency repair workload in winter 2022 has driven a higher number of complaints received in RIIO-GD2 year 2 compared to the previous year, however, despite this challenge, in both networks we have maintained a complaint score below the penalty threshold.

In terms of the performance under the complaints handling metric, in 2022/23 both our networks have continued to perform well with complaints handling, achieving **1.71** in Scotland and **4.74** in Southern. Compared to the baseline year (2019/20) Scotland's metric performance score remains low. Southern has seen an increase overall, although continues to perform within the threshold of **5.00** points. It is our view that the number of complaints per 10,000 customers is an important indicator of successful customer service. We believe that we are one of the best performing networks on this metric and it is a testament to getting customer service right at the outset so that customers don't need to resort to a complaints procedure.

	GD1 - Y7	GD1 - Y8	GD2 - Y1	GD2 - Y2
Volume of complaints	2019/20	2020/21*	2021/22	2022/23
Scotland	340	214	246	369
Southern	1299	793	1052	1556
SGN	1693	1007	1298	1925

	GD1 - Y7	GD1 - Y8	GD2 - Y1	GD2 - Y2
Complaints Metric	2019/20	2020/21*	2021/22	2022/23
Scotland	1.71	1.5	1.5	1.71
Southern	2.83	3.06	3.06	4.74

	GD1 - Y7	GD1 - Y8	GD2 - Y1	GD2 - Y2
Complaints per 10,000 Cust	2019/20	2020/21*	2021/22	2022/23
Scotland	1.85	1.16	1.33	2.00
Southern	3.15	1.92	2.54	3.75

*Due to the impact of Covid-19 we do not consider 2020/21 to be an accurate representation of a normal working year and therefore it is not a relevant point of reference.



Case Study

Warm Hub Surrey - Surrey County Council

Tens of thousands of Surrey residents face fuel poverty. Broader affluence masks areas of extreme deprivation with **20** areas of high need identified across the county in the English deprivation indices 2019. Many Surrey residents facing fuel poverty will already be vulnerable households, who are at risk of exacerbated ill health from being unable to properly heat their homes because of rising energy costs.

We co-founded the Warm Hubs Surrey partnership with Surrey County Council to reach hyper-local communities within the county in need of support. We invited local electricity networks Scottish and Southern Electricity Networks and UK Power Networks to join our partnership to increase the outcomes for residents.

We carefully co-designed the programme to ensure all warm hubs were activity-based, with free hot food and

drink as part of the offering. It was extremely important to all partners that we created a positive experience for those using the service, a place to connect with the local community and encourage residents to support each other.

At the start of the partnership, we expected to set up around **80** new hubs and aimed to support a minimum of **4,000** visitors over the winter. Collectively, Surrey Warm Hubs were located in more than **100** community locations, providing safe and warm spaces that were used by **21,921** vulnerable residents over winter.

Through the warm hubs, we provided **4,748** free hot meals, **4,033** winter essentials packs, **259** electric blankets and referred **1,569** vulnerable residents who were concerned about home safety for fire and rescue service safe and well visits.

“

The family after-school club has been a particularly successful part of Warm Wednesdays. A regular core of families attends and appreciate the warmth, the activities for children (using different children's entertainers each week) and the hot meal.

Epsom Methodist Church

”

“

The partnership, particularly with SGN, was critical to scoping the details of how the scheme should operate. Their experience of working with community schemes and customers in fuel poverty was invaluable in helping define the outcomes we wanted to deliver.

*Natalie Fiskien, Chief of Staff
Surrey County Council*

”

Key 2022/23 achievements



Households supported:
21,921



Energy advice sessions:
2,592



CO alarms provided:
529



CO safety conversations:
1,439



Emergency fuel and food vouchers:
5,315



Winter essentials packs:
4,292





5.2 Customer satisfaction

For the second year of RIIO-GD2 our Scotland network retained the number 1 position for customer satisfaction, this is a great achievement as we hold this position for the seventh year in a row. Progressing into the third year of this price control period Scotland maintains a healthy customer satisfaction score, whilst we continue to focus on increasing the score in our southern network. Overall, our southern network's performance was comparable to the previous year's however the ranking dropped to eighth position. Specific areas we are working on to improve our service and our customer satisfaction scores are:

- **Technology**

We continue to work with agility to understand the best solutions to deliver on our customer experience and vulnerable customer plans. This year we started using an application called Vyn, enabling our customers to become a 'Virtual Connections Surveyor' capturing short videos to help design their quotes faster. Trials have also been created with a view of making our processes faster around customer enquiries and complaint handling.

- **People**

We continue to hold customer forums and focus sessions to understand where changes are needed across our customer journeys. We recognise our people who continue to make a difference through our 10/10 corner and give monthly awards as well as sharing 'make the difference' stories across the business to drive focus and engagement.

- **Training**

To maintain a high standard of customer service, we have ongoing refresher training courses which include topics such as dealing with vulnerable customers and identifying vulnerability. We have developed a new 'Brilliant Basics' training package which is at the forefront of our induction programme for new recruits to the business to ensure clear expectations are set from the beginning and they have received adequate customer training before starting their new operational role.



Our frontline teams have helped support us with knowing our customers' needs and offering a helping hand when required, especially through a particularly harsh winter in 2022/23. They continue to uphold their commitment to never walking away from a customer in need and striving for 10/10 every time.



5.3 Guaranteed Standards of Performance (GSOP)

Connections

All our GSOP standards were achieved for the second year of RIIO-GD2. We accomplished **97%** or higher on **17** out of **20** of our standards with the remaining three standards at **96.29%**, **92.49%** and **92.91%**. All **20** standards exceeded our baseline target of **90%**.



Customers and interruptions

Interruptions, planned or unplanned, are never ideal for our customers, which is why we make a dedicated effort to keep interruption time as low as possible to reduce any inconvenience, especially to those who are vulnerable. Our customer satisfaction scores for unplanned interruptions in 2023, which arise through leakage or other emergencies, is **9.5**, which against the background of challenges we have faced this year demonstrates our dedication to care for customers to ensure they feel minimal effects of our works. For planned interruptions through our replacement, capital projects or routine maintenance works, our customer satisfaction score is at **9** across both our southern and Scotland networks.

Scotland Mean Unplanned Interruptions Penalty

In Scotland we exceeded the maximum penalty threshold for the mean unplanned interruptions output delivery incentive. This was due to a single high-rise multioccupancy building where a leak could not be isolated and we had to disconnect the gas supply in order to make the situation safe. 32 customers were affected by this single outage and the outage lasted approximately 3 months whilst we secured planning permission for a new riser, secured specialist contractors necessary to install the riser on a high-rise building and carried out the work. Through-out we worked with our customers to ensure that their welfare needs were provided for and provided additional support directly to them. This single isolated incident meant that we exceed the penalty threshold. It is our view that there was nothing that we could have done to reinstate the gas supply sooner, and that incidents like these should be taken into consideration in the design of the incentive.

Southern Mean Unplanned Interruptions

Whilst it has not yet been resolved a similar incident of a gas escape in a block of six flats in October 2022 resulted in the riser having to be disconnected for the safety of the residents. Unfortunately despite continuing efforts we have been unable to identify an appropriate solution to restore gas to the building that is satisfactory to the local planning authority residents and the neighbouring buildings. We anticipate that isolated incidents such as these will continue to distort the Unplanned Interruption Mean Duration output delivery incentive.



6 Shared future

6.1 Strategic Innovation Fund (SIF)

The Strategic Innovation Fund (SIF) is a funding mechanism within the RIIO-GD2 network price control for the Electricity System Operator, Electricity Transmission, Gas Transmission and Gas Distribution sectors, with the aim to decarbonise the gas and electric energy distribution and transmission networks, providing benefit to consumers

SIF is a competitive funding mechanism which consists of three phases:

- **Phase 1** – Discovery: Feasibility studies
- **Phase 2** – Alpha: Experimental development
- **Phase 3** – Beta: Build, operation, or demonstration

2022/23 saw the continuation of a number of projects from the successfully completed Round 1 Discovery phase into the next Alpha phase. These projects continued to address the four challenge areas (Whole System Integration, Data & Digitalisation, Zero Emission Transport, and Heat).

From the six projects in Discovery, two projects were combined, and one project was not taken forward, in total taking four projects through to submission. All four projects were successfully awarded totalling over **£1.8m** where an additional two collaboration projects led by other utility companies were also approved.

The successful projects were:

- **Gas System of the Future/Digital Twin - Alpha - Data and Digitalisation:** The unification of two SIF Discovery Phase projects (a hydrogen production digital twin and a gas network digital twin) forms the basis of our project, which for the Alpha Phase aims to explore further the commercial, societal and operational benefits that could be derived from the deployment of a unified 'gas system of the future' digital twin.
- **Predictive Safety Interventions - Alpha - Data and Digitalisation:** Currently, the process for reducing lost-time injuries involves a large manual data-capture effort and experimental process changes. By the nature of this process, a worksite is already unsafe before anything is done to prevent it. Instead of waiting for a site to become unsafe, FYLD and SGN want to analyse which conditions contribute the most to worksite safety, then multiply them throughout the network.
- **Intelligent Gas Grid - Alpha - Data and Digitalisation:** Using Utonomy's remote control pressure system as the enabling technology, the project idea is to collect and use network data alongside external data such as weather to develop machine-learning and AI applications that optimise network pressures and provide insights on network performance.



- **Velocity design with hydrogen - Alpha - Heat:** Gas network designers will be challenged to safely repurpose networks to low carbon heating gas with minimum costs while maintaining energy delivery. The energy delivered by hydrogen is one third of that delivered by natural gas per unit so, under many of the likely demand scenarios in the zero-carbon future, the flow rate of gas in re-purposed gas networks will need to increase. Gas network designers need to know the safe design velocity limits so they can reduce to a minimum any need to increase pipe sizes to accommodate zero-carbon heating.

This Round 1 Alpha phased was completed towards the end of 2022/23 with the next Phase Beta also submitted this financial year. In total our four Alpha projects were submitted where if approved they would look to start in July 2023.

Preparations for Round 2 Discovery also began this year with eight project ideas being submitted of which six projects were awarded. These projects will begin at the start of next financial year.

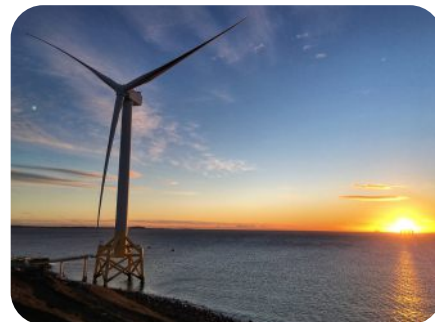


6.2 Future of Energy

Network Innovation Allowance (NIA) Future of energy

During the second year of RIIO-GD2 we have been working on over **50** live projects, over **30** of which being led by SGN in collaboration with other GDNs. In addition to this we have supported over **15** projects being led by other GDNs. The projects that we have engaged with according to the themes include:

- **Supporting consumers in vulnerable situations**
- **Flexibility and commercial evolution**
- **Net Zero and the energy transition**
- **Whole energy system**
- **Optimised assets and practices**



These NIA projects are crucial in highlighting potential knowledge gap areas that need to be addressed in order to provide the required robust evidence to demonstrate network conversion as a viable energy future option for the UK. Some examples of these projects include the further development of the H100 Fife project, a first of its kind demonstration of a 100% hydrogen network. This has significant investment from Government and Ofgem where the project was initiated from a previous NIA project.

Other flagship projects include Local transmission Systems (LTS) Future project which forms part of the UK's national hydrogen research programme to deliver a Net Zero decarbonisation solution for customers. The project seeks to research, develop, test and evidence the compatibility of the LTS assets, pipelines, associated plant, and ancillary fittings, culminating in a 'first of a kind' repurposing trial and demonstration.

Supporting consumers in vulnerable situations

Equality and fairness are the foundations of a just transition to Net Zero. As we move to a cleaner energy system we need to better understand all types of vulnerability, and its changing nature, to ensure no one is left behind. Energy consumers can find themselves in vulnerable situations at different times and for different reasons. Key aspects will be consumer choice with regard to suitability, availability and affordability of alternative clean heating solutions. Consumers in vulnerable situations are significantly less likely to be disadvantaged as the energy system changes and may need more support during the energy transition.

Flexibility and market evolution

Our gas networks are managing a more complicated network of inputs and offtakes with greater variation in generation and use. New commercial arrangements encourage further growth in the number of green gas projects connecting to the gas networks. Projects such as SGN's Hydrogen entry units assessing the requirements of blended hydrogen network entry. This is a critical area of work developing the working models of the future to ensure we can adapt our forecasting models and methodologies to maximise the value that these sites can bring. Our networks will also need to continue to evolve to supply the potential of 100% hydrogen.

Net Zero and the energy system transition

The UK government has published a clear strategic direction for our transition to Net Zero by 2050 and the devolved governments of the UK have also set ambitious targets, with Scotland pursuing Net Zero by 2045. Some local and regional governments are also pursuing accelerated Net Zero timelines. This is reflected in the UK's ambition by exploring the decarbonisation of the gas networks through the Gas Goes Green programme.

The role of the gas network in a Net Zero future is a key challenge SGN continue to explore and understand through the projects we work on. The role our gas networks will play as the energy system transitions will largely be determined by the UK governments 2026 heat policy decision, but we will continue to investigate, trial, and implement safe low carbon alternatives to natural gas evidencing the technical know-how to ensure a variable clean gas transition pathway. A Net Zero future for networks includes supporting and managing lower and zero carbon sources of energy generation, future network operability, suitability, storage and demand to both the transmission and the distribution networks as energy resources become more decentralised.

Whole energy systems

Considering the full range of opportunities, risks and interdependencies that exist across the full energy system to integrate and optimise them in a way that best serves the consumer. Our whole systems projects look at partnering collaboratively across sectors driving value for our consumers by finding opportunities in how we plan, forecast, design, construct, operate and maintain our networks. As we continue to improve our understanding of the interactions across all the energy system to deliver our decarbonisation objective by employing whole systems approach increasingly important. Through joined-up forecasting and planning that recognises the changing demands and evolution of our energy networks working more closely with cities and regional bodies to understand how we can enable their Net Zero ambitions.

Optimised assets and practices

With the future changes to our gas networks, we must assess our assets and practices to ensure our network is ready for a green future. Therefore, we are investigating industry leading techniques to strengthen our network by reducing unplanned outages, supply interruptions and minimising environmental impact and leakages. This all requires the networks to explore new innovative methods, ensuring our network is future-proofed and prepared for achieving net-zero. We do not currently have any projects underway in this area.



Decarbonising heat and delivering Net Zero

We are continuing with our commitment to deliver projects that demonstrate the important role our network has in achieving Net Zero, including support for the Scottish and Solent Clusters which lie within our network areas. In the second year for RIIO-GD2 we have focused our efforts on a number of research projects to help better understand what we need to do to convert our network and reach Net Zero by 2050 (with the Scottish government targeting 2045).

This year has seen a number of pre-Front End Engineering Design (FEED) projects being undertaken in Scotland and southern England to determine the route and design of hydrogen transmission infrastructure and the wider ambition to decarbonise heat in homes, industry, and transport. This work has explored how existing networks can support the hydrogen infrastructure as well as the likely costs and timescales of any new infrastructure required.

In particular, work has been carried out on a number of projects focusing on our Local Transmission System (LTS) for repurposed and potentially uprated to convey hydrogen, providing options for the decarbonisation of power, industry, heat, and transport by delivering a safe supply of energy to all customers both during, and after the energy transition.

Work also continues to demonstrate our H100 project with the aim to deliver a 'first of a kind' design for a conversion of an existing natural gas distribution network to hydrogen. This includes designing options for production, storage, distribution, and fuel switching for customers in Fife. We are also supporting Cadent and NGN in their proposals for the Hydrogen Village.

The next step forward from H100 Fife and the Village is the proposed Hydrogen Town Pilot. We have submitted a bid to the Department for Energy Security and Net Zero (DESNZ) for funding to carry out outline planning for the proposed Hydrogen Town and have proposed three locations, two in Scotland and one in southern. A decision on funding is expected in September 2023. To achieve these UK government's Net Zero targets, we are evidencing the use of hydrogen as a key low carbon alternative to natural gas through the projects listed above and through other flagship projects being carried out by SGN. These are also being carried out with support from other energy utility companies and industry leading experts.





6.3 Network Innovation Allowance (NIA) - Vulnerable Customers

Vulnerable customers and the wider public often find journeys through and around street works a challenge. When travelling through street works, there is an inevitable level of inconvenience caused by the works. However, the public's tolerance level quickly diminishes if there are avoidable obstructions or if signage is unclear. Through the data gathered during the collaborative GDN NIA StreetScore 1 Project (Concept Development), completed in March 2021, it was clear that vulnerable individuals, carers, and advocates are unhappy with the current way street works are designed and wish for more accessible works.

There is a significant behavioural element to addressing the challenges of making street works suitable for all. It's clear that "being human", providing empathy, understanding, and assistance is crucial, no matter the technology, products, or processes developed to provide this.

Continuing from StreetScore 1, we began the StreetScore 2 towards the end of this first year of RIIO-GD2. This project is in the development stages with a prototype in production, and we anticipate it will be complete in the latter part of year 2. We chose to progress this project as it looked to be the most promising of the over **20** options for improving Street works derived in StreetScore 1. Some of these concepts developed in StreetScore 2 look to include the development and testing of an Impact Assessment Tool, Code of Practice Booklet, Checklist Tape, QR Coding and Training Material. All of which we believe will improve the overall experience of street works for our customers, especially those who are more vulnerable.



6.4 Biomethane

We continued to progress **15** biomethane connection projects across the year to ensure efficient and timely connections in years 3, 4 and 5 of RIIO GD2. The ambition to increase the connected gas entry capacity to provide sufficient capacity to supply **450,000** domestic customers by the end of RIIO-GD2 is on target. There are a number of large and complex biomethane connections progressing with several high-pressure transmission connections with accompanying biomethane blending opportunities to reduce the volume propane required to be commingled with the gas.

Projects currently being progressed include:

- Port Gordon, Scotland – the development of **seven** network entry units to inject gas into the SGN high pressure network. The **2.5km** newly constructed SGN high pressure pipeline has been commissioned in readiness for the first of the seven network entry units connecting in June 2023. The final total connected capacity will result in **6500Scm/h** of additional connected capacity.
- Girvan, Scotland – **two** additional high-pressure connections are being progressed to inject additional capacity in to the SGN local transmission network. Once completed the total connected capacity of **7000Scm/h** will be the largest biomethane connection project in the UK.
- Avondale, Scotland – progressing the connection of the UK's first landfill gas biomethane connection. This will facilitate **1000Scm/h** of landfill gas into the SGN local transmission network.
- Haddington, Scotland – high pressure connection in the SGN transmission network to inject **1100Scm/h**.
- **Two** biomethane projects at Invergordon in Scotland using distillery waste as feedstock.
- **Three** new biomethane road tanker hubs near Inverness in Scotland and two in Oxfordshire which could inject **5000Scm/h** each.

We are also progressing 10 RIIO GD2 PCD projects to reduce the volume of propane in the network and focusing on smarter pressure control and setting of governors to prioritise biomethane injection.



7 Safe and efficient

7.1 Safety

At SGN our focus on health, safety and the welfare of our colleagues has never been higher. Our colleagues are supported by our own in-house Occupational Health team, who are there to support the good health and wellbeing of everyone at SGN.

Fatigue management: A positive work-life balance is essential for us all, and at SGN we are continuing to develop attendance rotations which are supportive of this. Our management of fatigue at work is an area of continued focus for us as we move forward. We are continuing to explore new and innovative ways of working to ensure that our colleagues are protected from the effects of fatigue and are able to stay healthy and work safely.

Operational Risk assessments: It is of course vitally important that our colleagues have everything that they need to respond effectively, not only to our more routine tasks but also in the event of a gas emergency. Our colleagues receive comprehensive training in all aspects of the work they perform. To help colleagues maintain the high standards necessary for undertaking our safety-critical work, we monitor and assess work as it's being performed, to ensure that the high standards we work to are maintained. To support our colleagues in the performance of their safety-critical work, we have introduced a new app to our devices. The app allows our colleagues to undertake risk assessments and record them on the device. The risk assessment can then be instantly uploaded to provide an accurate record of the hazards identified and the measures introduced to control the risks presented. The app also includes a photo and video facility which enables colleagues seeking advice or guidance, to provide accurate information relating to a situation or circumstance.

Near-miss reporting: We have a well-developed hazard and near-miss reporting culture which is designed to remove risk before it causes injury or damage. This is an area where our new app has proved to be very beneficial, as reporting a hazard or near miss using the app is very quick and easy to do. Our management team have a robust development pathway, to ensure that they are able to effectively lead and direct our operations to achieve good outcomes for our customers and colleagues. Our operational teams are in turn supported by our team of health and safety professionals.

Safety for All: Our Health & Safety team deliver a professional standard of support, advice, and guidance to all levels of the business, from the board of executives to our operational colleagues. Although our safety-critical work takes place across the entirety of our gas distribution network, we operate from a number of bases both operationally and office based across southern England and Scotland. As such, we ensure that we bring the same safety focus that we use for our safety-critical tasks into our operational and office bases, where good housekeeping, safe storage, safe vehicle movement, and pedestrian safety are paramount.

National gas emergency number – 0800 111 999: The national gas emergency number is routed through a call centre managed by Cadent. This year the call centre was pushed to its limits following a particularly challenging winter where call volumes reached record numbers. Investigations by Cadent have found numerous causes for this occurrence and are looking at how to better support customers effectively when they have a gas emergency. SGN are also focused on the safety and well-being of our customers during a gas emergency and continues to work with Cadent's call centre to ensure a smooth and successful process.





7.2 Data and digitisation

At SGN, our digital and technology goals are to ensure that our customers and our network is safer, greener, and more efficient because of what we do. Our [digital and technology strategy](https://www.sgn.co.uk/sites/default/files/media-entities/documents/2022-05/SGN_Digitalisation_Strategy_0322.pdf)³ has developed over many years and will continue to grow and develop further as we listen to our stakeholders, collaborate and deliver the strategy in all five years of the RIIO-GD2 price control timeframe. Our RIIO-GD2 strategy has been produced directly in response to the recommendations of the Energy Data Taskforce and more recently the Energy Digitalisation Task Force (EDiT) report entitled Delivering a Digitalised Energy System.

We continue to develop and grow our data capability in line with Ofgem's Data Best Practice Guidelines (DBPG) and in 2022 invested in a data management platform – Talend – both as a key enabler for developing this capability but also in response to DBPG requirements. Earlier this year, we developed our Open Data Portal and published an Open Data Set alongside Metadata, Supporting Information and Open Licence agreement. We also have plans in place to engage with Data Consumers to ensure their requirements are appropriately reflected in the development of our data and digital products and services.

Strategic Innovation Funding has provided an important mechanism to support collaboration with partners and progress innovation of Data and Digitalisation, with four projects securing Phase 1 – Alpha funding. The initial development of Digital Twin – Gas Network of the Future project has helped to initiate cross-vector use-cases around whole energy systems, interoperability, Net Zero and security of supply. We have submitted our proposal to progress to Phase 3 – Beta to further develop this capability. Digital twin technology is expected to underpin and enable the digital transformation of the energy sector through asset and system management and monitoring and will enable the future of regulation for this sector.

Our future technology roadmap includes exploration and capability development in connectivity to enable our people to work digitally in remote locations, exploiting Industrial IoT for efficiency and safety, robotics to make our operations safer, and augmented reality for training. The combination of rich data from IoT, AI for advanced analytics, and visualisation provides a long-term opportunity to base our business on data-driven decision-making. In the shorter term, robotic process automation and large language models (such as ChatGPT) may provide opportunities to tactically automate some complex manual processes. We continue to track technology trends to evaluate the strongest emerging technologies that may support our Data and Digitalisation strategy.



³ https://www.sgn.co.uk/sites/default/files/media-entities/documents/2022-05/SGN_Digitalisation_Strategy_0322.pdf

Contact us

If you'd like to be part of the conversation to ensure your views count or if you have any questions on our stakeholder engagement activities please get in touch.



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