



# SGN

Your gas. Our network.

## Discretionary Reward Scheme 2013-15



### The SGN way

We're very aware that today, more than ever, the industry faces competing pressures of having security of supply, while balancing this with reducing carbon emissions and ensuring energy is affordable for all.

We have a clear vision of what we want our company to look like by the end of our eight-year price control period and are working together to ensure that gas is a vital part of the UK energy solution beyond 2021. We want to do this by enhancing our role as an innovative, efficient and customer-centric company.

We're also sustaining our world by shaping the future of a low carbon environment, leading in the development of green gas, minimising our effect on the environment and positively impacting our local communities.

Under our Acting Responsibly theme we're developing a number of initiatives to combat energy affordability issues whilst looking after customers who need most support.

We recognise many of the challenges faced on carbon monoxide (CO) awareness, tackling fuel poverty and looking after vulnerable customers are interconnected and this leads to the opportunity to have a more holistic approach to tackling these issues.

In the pages that follow we've highlighted some of the initiatives we've been carrying out in these areas from 2013 to 2015 which demonstrate best practice and which we believe are scalable to the benefit of all UK customers.

## ▶ Supporting vulnerable customers

We're fully committed to supporting low-income and vulnerable households in our network. Based on our Help to Heat strategy and vulnerable customer drivers our joint priorities for social outputs can be summarised as:

**Help to Heat scheme**  
We're tackling fuel poverty by delivering assisted connections and driving policy changes to the scheme

**Affordable warmth**  
We're helping households in our network to heat their homes more affordably

**Addressing vulnerability**  
We're recognising and supporting our most vulnerable customers

## ▶ Help to Heat scheme

We've introduced Help to Heat, a new strategy for our role in tackling fuel poverty informed by key stakeholders (such as policy makers, local authorities, charities etc.) following seminars held in both our networks. Meeting our Help to Heat scheme targets (formerly our Assisted Connections scheme) is a priority but we're also committed to supporting households in fuel poverty beyond connecting them to our network, recognising that fuel poverty occurs for existing gas customers and for those off-gas grid.

### Help to Heat scheme - the facts

Our target for assisted connections during the period of RIIO 2013-21 is **20,000**.

Building on our successes from 2012-13 with our primary partner Yorkshire Energy Services (YES) in our Southern network, YES now provides eligibility check expertise in our Scotland network too. YES has supported us in delivering:

No. OF ASSISTED CONNECTIONS	TARGET 2013 - 21	TARGET 2013 - 15	ACTUAL 2013 - 15
<b>Scotland</b>	<b>11,000</b>	<b>2,750</b>	<b>8,835</b>
<b>Southern</b>	<b>9,000</b>	<b>2,250</b>	<b>2,209</b>
<b>Total</b>	<b>20,000</b>	<b>5,000</b>	<b>11,004</b>

Furthermore, as a result of strong relationships with local authorities, leveraging funding from national schemes for in-house measures and increased engagement following the launch of Help to Heat, we've delivered:

- **£18.1m** Help to Heat allowances to our customers
- **120%** more connections than our target
- **41.4 km** of fuel poor system extension work
- **47,740 tonnes** of carbon savings
- **£5,398,569** of energy bill savings

Stakeholders such as Energy Action Scotland (EAS) and the Scottish Government told us they want us to continue providing assisted connections beyond our current target. During the Ofgem fuel poor network extension scheme consultation in autumn 2014, we encouraged our stakeholders to respond to the consultation and we've engaged in discussions resulting in increased targets.

### UK Landlord magazine

Responding to feedback from leading charity EAS on the significant number of people living in fuel poverty in the private rented sector, and to new energy efficiency standards for private rented accommodation in England, we took out advertising copy in UK Landlord magazine on behalf of all GDNs. Distributed to **20,000** landlords, we've reached an audience particularly at risk of fuel poverty and engaged with wider policy drivers to increase the number of people accessing assisted connections.

### Mains extension - partnering with an iGT

We worked in partnership with independent gas transporter (iGT) ES Pipelines and housing association River Clyde Homes to deliver the first network extension project with an iGT.

We targeted people living in an off-gas grid area of multiple deprivation where both social and private households qualified for an assisted connection. With an **85%** uptake across both social and private sectors, this made energy more affordable for **100** households in fuel poverty in Port Glasgow.

Significantly, this project trialed a process flow chart that we developed with ES Pipelines, shared with the other GDNs and is now being promoted to our regulator. If implemented, this could lead to further iGT/GDN partnerships to take more households out of fuel poverty cost effectively.

### District heating schemes (DHS)

Currently the Fuel Poor Network Extension Scheme leads us to connect individual properties. In order to drive the right behaviours we've held discussions with Ofgem on behalf of the networks to enable district heating schemes (DHS) to be included and funded within the scope of the scheme.

In the meantime we've supported DHS on a discretionary basis demonstrating our willingness to go beyond our licence responsibilities to assist those in fuel poverty. DHS offer a more cost effective form of central heating and hot water supplies to high rise flats. For example, we work with Aberdeen Heat & Power where a flat rate of **£50** per month is charged to customers reducing monthly energy bills by more than half.

Over the last two years we've carried out seven district heat schemes supporting **1,579** connections at a cost of **£225,326**.

### The power of data

Using the data contract and sharing procedure we developed in 2012-13, we've provided data to powerful stakeholders to inform public spending and national priorities, ensuring opportunities to connect to our network are freely understood, supporting promotion of our Help to Heat scheme.

In 2013, we provided Scottish Government with data to support development of the Scotland Heat Map and Heat Generation Policy Statement. This included the graphical layout of our mains filtered by on-gas and off-gas areas, to inform decisions on future projects at local and national strategic level. We also provided a list of the households supplied by our network to the Energy Saving Trust to support the development of its Home Analytics Tool used by local authorities to prioritise and identify modernisation projects.

## ► Affordable warmth

Households are more likely to be in fuel poverty if they are unable to connect to our network but we recognise that fuel poverty can still be an issue for our existing customers. Part of our Help to Heat strategy for households on and off the gas grid is to reduce their energy costs and provide them with saving advice.

### Pop-up energy cafés

One innovative method was to pilot a number of pop-up energy cafés with partner organisations in Brighton, Worthing, and Galashiels to support aspects of our work and community activities such as mains replacement projects and network extension schemes. We worked with partner agencies EAS, Home Energy Scotland, Scottish Borders Council, Citizens Advice and Communities Matter and worked in off-gas grid areas collaboratively cross-border with Northern Gas Networks. Local MP Michael Moore visited our Galashiels pop-up energy café to coincide with National Fuel Poverty Awareness Day.



EAS also carried out energy awareness training for **four** of our staff and **five** advisors from local agencies to enable us to use this skill for future projects.

Overall, our pop-up cafés proved an innovative way to help customers on and off the gas grid. We hosted a total number of **12** days offering energy efficiency advice on reducing energy costs, improving home energy performance and gas safety in the home over a cuppa and a cake. A total of **52** people received advice that could save them **£10,595**.

### Energy saving devices

We've engaged with **three** housing associations and **three** energy device manufacturers to trial the use of new technologies - Thermoflow, Tadpole and Chop-cloc - to maximise the efficiency of existing systems. Taking part in these trials helps to reduce tenants' fuel bills and helps small and medium sized enterprises (SMEs) showcase green and energy saving technologies.

The cost of the trials is **£23,098** and each will be independently evaluated by National Energy Action. Once evaluated we will share the knowledge going forward.

## ► Addressing vulnerability

### Looking after vulnerable customers

We recognise that as part of Ofgem's Vulnerable Customer Strategy review, the BSI accreditation (BS18477:2010) was recommended as a standard that all companies should work towards. Whilst we review

how our company can engage with this accreditation, we understand that vulnerable customers need support now. To maximise the existing skills of our workforce we've been able to introduce a number of initiatives to help vulnerable customers particularly those suffering from dementia.

### Care Commission accredited dementia awareness training

We know that our frontline engineers encounter vulnerable customers during their everyday work activities and that's why we've trained all customer-facing staff to recognise the signs of dementia, providing communication aids and referrals via our Freephone customer helpline. This service will refer customers to local organisations for advice and assistance and we will also ensure that they are registered for priority services (on the PSR) with their relevant DNO.

### Locking cooker valve trial

At the national CO Conference in July 2014 we were moved by a presentation from Afroza Ahmed, who runs the charity Dying to Keep Warm. Recognising the charity's aims were aligned to our developing vulnerable customer strategy, we've been working together to support its initiatives to help keep vulnerable customers safe in their home.

Reviewing the charity's safeguarding solutions we realised our engineers have the necessary skills, are already working in the community and would be able to fit locking cooker valves to avoid explosion and fire, providing reassurance for carers. We're carrying out a trial in Scotland and this is being monitored to understand job durations, costs and on-site challenges in fitting the valve in order to inform full roll-out across our networks and we'll share learning with the other GDNs.



## ► What's next?

### Help to Heat scheme

- Work with the Energy Saving Trust to facilitate referrals to each GDN's fuel poor network extension scheme through its Energy Saving Advice Service helpline
- Build on previous park home successes by investigating a number of identified potential sites with support from our partner YES

### Affordable warmth

- Review the outcomes of our pop-up cafés and energy device trials to determine future strategy

### Addressing vulnerability

- Develop a firm vulnerable customer strategy following review of BSI accreditation
- Build strong relationships with DNOs to support the development of the Priority Services Register

## ► Building a low carbon future

Understanding our role within the energy sector and the impact we have on our world, our environmental strategy is threaded throughout our business and can be summarised as follows:

### Reducing our footprint

We're minimising the impact of our business activities on our world

### Shaping policy

We're encouraging changes to regulation to improve our carbon efficiency

### Greener gas

We're looking at innovative ways to make sure our network has a role in a low carbon future

## ► Reducing our footprint

### Green plan

In our last DRS submission we said we were introducing green plan as our new business sustainability strategy which aligns with our new company goals over the eight year period 2013-2021. Green plan aligns to our **five** key environmental goals with Executive responsibility, targeting **nine** areas for continued improvement. Our goals will remain the same but we'll review our targets in 2017 based on the progress made.

Our green plan improvements on our 2012-13 position include:

### Reduce gas emissions

- We've saved around **53,000** tonnes of CO<sub>2</sub> from natural gas emissions, improving 3% – that's the equivalent of 37 flights from London to Perth, Australia with 400 passengers



### Reduce carbon emissions

- We've saved **36,555** tonnes of CO<sub>2</sub> from business travel, improving 5% – that's the equivalent of **6.5 million** miles of our average company car



### Increase energy efficiency

- We've saved **14.2m** KWHs of energy from our offices and depots, improving 35% – that's enough energy to power 257 households for a year
- We've saved **18.4m** KWHs of energy at our operational sites, improving 34% – that would power a German high speed train to travel **259,333** miles at **200mph**



### Increase resource efficiency

- We've used polyethylene (PE) pipe **3%** more efficiently – that would have allowed us to lay an extra **87km** of pipe in our network



### Eliminate waste landfill

- We've only sent **2%** of waste to landfill, improving **88%** – that's the equivalent of **340** tonnes of waste that was recycled
- We've only sent **0.9%** of spoil to landfill, improving **66%** – that's the equivalent of the contents of **143** fully loaded articulated lorries



## ► Using innovative techniques

### Core and Vac and CISBOT technology

After successful trials core and vac is now a recognised technique used across our network and we're now exploring further use of keyhole technology, which is new to the UK gas distribution industry.

We're the only GDN to pilot CISBOT, and our first trials in London have shown **■** less time spent on the highway and a **■** reduction in excavations required, which in turn has an effect on the social and environmental impact of our work. Further trials are planned to understand the full benefits this technology provides.

### Cured in Place Pipe (CIPP)

CIPP has delivered great value for money and significant environmental benefits in the water industry and we seek to learn from this. We're currently learning from a live trial on our network, and working with WRc and the other networks to resolve some technical issues before this can be rolled-out as standard.

### Pipe insertion

Investment in 16 x 500m pipe coil trailers has enabled us to benefit from **896** tonnes of CO<sub>2</sub> saved annually and reduce PE usage. A further **14** trailers have now been purchased meaning we will save **1,680** tonnes of CO<sub>2</sub> a year.

### PE riser replacement trial

During the last year we've completed our first project involving the fitting of polyethylene (PE) risers to replace the existing steel supplies in a large flatted property. Risers are vertical pipes that supply gas to a number of properties in one building.

By using PE instead of steel this removes a considerable amount of weight from the structure which in turn reduces stress on the pipework, less joint leakage and less chance of corrosion at ground level. This supports our environmental strategy to reduce natural gas emissions by leakage from our network and potentially extends the life of our assets by **18 years**. We funded this initiative at a cost of **£298,684**.

This process has developed from the trial to an approved product and has brought about a policy change in the Institution of Gas Engineers and Managers (IGEM) engineering procedures shaping best practice across the industry.

Since the trial we've replaced more than **40** risers with PE and we're working on three further projects of approximately **2,000 metres** of pipe.

## ► Shaping policy

### Shrinkage and leakage

**Ninety eight per cent** of our carbon footprint comes from either network leakage, or by the use of gas from unregistered sites. We're addressing both by replacing and remediating our gas mains, and by tackling sites where properties are either not correctly registered or may be taking gas illegally.

### Shipperless and unregistered sites

To best deal with the volume of shipperless and unregistered sites we've instigated and implemented several measures including an industry project to address the high priority sites. This has enabled us to clear in excess of **60%** of the **7,000** sites on our network.

We're now leading a project to prioritise the remaining volumes in order to focus future work. We also initiated and provided the text for a joint GDN leaflet (designed by the Energy Networks Association) which is now going out to all new connections customers advising them how to get a supplier which will help prevent any future unregistered use.

We also put forward several amendments to industry regulations to further improve processes to avoid unregistered or illegal use and to enable networks to charge suppliers for unnecessary visits as a result of incorrect data provision.

## ► Greener gas

National Governments, consumer and fuel poverty groups want us to continue to invest in alternative, cleaner energy sources and integrate these into our network. Greening the gas is central to our long-term strategy to enable the gas networks to perform a vital role in a low-carbon energy system.

### The bio-methane way

As alternative heat sources become more available we want to ensure that gas is an essential fuel of choice for customers and have set a target of supplying **250,000** homes with green gas by 2021 in our overall company strategy. Gas is the fuel of choice for many and by 'greening' it as much as possible we can help the country to meet its climate change targets.

We were the first GDN to inject bio-methane into our network and were also a partner at the first commercial bio-methane project. This aided industry learning for the delivery of bio-methane into the gas distribution network.

In the last two years we've connected a further eight bio-methane sites supplying **65,000** customers' homes saving **145,806** tonnes of CO<sub>2</sub>. In addition to up to **56,000** households, our Poundbury site is now fuelling **34** buses in Reading.

### A drop of the green nectar

Our portfolio of projects has now expanded to incorporate the first whisky distillery to connect to our network, where bio-methane is produced from the organic waste at the end of the distilling process. The recent growth in the whisky industry has the potential

to release over **90** million tonnes of organic material, some of which can be used in the production of bio-methane.

The project has allowed us to extend our knowledge in the large scale entry of green gas and provided the customer with a cost effective and timely connection to our network. This has opened the way for similar sites to convert to green gas injection, which reduces both the environmental impact by the efficient use of the waste and local gas consumers who can access a low carbon energy product.



### Easier network entry with European first

Our Portsdown Hill Bio-methane terminal became operational in August 2014 and has received **1.0m m<sup>3</sup>** of tankered green gas from suppliers in remotes areas to inject in our network. This virtual pipeline is the first of its type in Europe and supports SMEs to enter into the biomethane market.

### Hydrogen

We're interested in learning about hydrogen generation. We'll use the results of University College London's Project 'Hydrogen's value in the energy system' to inform our decarbonisation strategy. In the next phase we intend to trial a project to create a gas grid H<sub>2</sub> injection point and are in early discussions about a potential GDN collaborative approach.

Continuing our engagement with the Aberdeen bus project, we joined partners at a launch and visit to the state-of-the art refuelling station which went live in March 2015 and we're reviewing options for further involvement in later project stages.

## ► What's next?

### Reducing our footprint

- Introduce water efficiency measures into our depots
- Drive efficiency of our streetworks activities through the technologies we've invested in

### Shaping policy

- Promote modifications to industry regulations around shipperless and unregistered sites to support quicker supplier switching

### Greener gas

- Identify and carry out further projects to meet 2021 target of 250,000 households supplied by bio-methane
- Continue engagement with whisky distilleries on bio-methane injection to grid opportunities

## ▶ Raising carbon monoxide (CO) awareness

Safety is at the heart of everything we do and part of this responsibility is a commitment to reducing the number of incidences of CO poisoning.

From our CO strategy our priorities for tackling CO awareness can be summarised as follows:

### Grassroots awareness

We're informing local communities in our networks about the dangers of CO

### Partnership working

We're working with expert partner organisations to raise awareness in innovative ways

### Driving change

We're lobbying for change in national policy and beyond that will reduce CO risks

## ▶ Grassroots awareness

### Informing and educating

We believe that one of the most effective ways to raise CO awareness and promote gas safety is to engage children and young people who are ideal champions to take this learning on board and share the message.

### Edinburgh Risk Factory

We support the Edinburgh Risk Factory which is a purpose-built safety centre for groups of children and other community groups like Scouts and Brownies. By providing information for the attendee workbook and materials for the scenarios, we've ensured that CO awareness and gas safety is an integral part of the home safety messages used by the centre. SGN volunteers through our Community Action Programme also help with taking groups around the facility. The centre has been visited by over **55,000** primary 7 pupils.

Similarly we support Hazard Alley, Milton Keynes and LV Streetwise in Poole to provide CO awareness and gas safety messages to school children in Oxfordshire and Dorset.

### Safetysiders

Led by Police Scotland, this is an event held annually in Perthshire over two weeks with representatives from organisations such as Scottish Fire and Rescue Service, Scottish Ambulance Service, Police Scotland, British Red Cross, RNLI, SSE, NHS Scotland and Network Rail working together to educate children on safety issues. Our frontline engineers have delivered gas safety and CO awareness training to around **3,000** primary pupils from **79** schools.



## NUS Student CO Awareness Survey Results

Recognising that students are a particularly at risk group, we commissioned an on-line CO awareness survey of **1,804** university students with the National Union of Students. This will allow us to assess the gaps in their knowledge of CO and reduce the risk of CO related incidents for this group through targeted initiatives. Results highlight that:

- **35%** live in private rented accommodation, **53%** of whom indicated that their landlord checks their gas appliances
- only **42%** of all respondents have a CO alarm in their home
- **9%** of all respondents told us they would use a BBQ to keep warm under an awning or gazebo
- Most respondents were aware that CO has no smell, taste or visibility

We've also shared the survey results with the other GDNs to allow further collaboration in this area.

We also recognise that older and vulnerable people are an at risk group and have targeted some initiatives accordingly.

### Royal Voluntary Service (RVS) Get Ready for Winter Campaign

The focus of the RVS 'Get Ready for Winter' campaign is to help older people, their friends, family and neighbours feel better prepared for winter, more connected and to feel well during this period.

To raise awareness of the importance of having CO audible alarms and getting appliances serviced and checked regularly especially when approaching the winter months, we donated **£20,000** in sponsorship and partnered with RVS in 2014. The campaign reached:

- **100,000** RVS service users through **69** hubs
- **450** community centres, lunch clubs and volunteers
- **500** hospital shops and cafés
- **40,000** volunteers newsletters
- **2,000** RVS staff through internal communications channels

In addition to a media and online campaign, there were **four** events at selected RVS service hubs/ community centres with service users, RVS volunteers and ourselves as the sponsor.

### Dumfries and Galloway Fire and Rescue and Handyvan Service

As part of our joint Get Ready for Winter events with our partner RVS in Dumfries, we met other local community groups working with vulnerable people.

We gifted **50** CO alarms to Dumfries Fire and Rescue Service to issue during their home safety checks for the most vulnerable. We've also donated **50** CO alarms to the Handyvan Service in Dumfries. Discussions are also taking place with other fire and rescue services and local care and repair services.

### Blue Lamp, Hampshire Partnership

Hitting the Cold Spots is a campaign run by Hampshire County Council to reduce the level of deaths and illness for vulnerable people. Continuing our support, we donated **3,000** CO alarms that were issued to the most vulnerable during safety checks.

## ► Partnership working

### Dominic's day

Dominic Rodgers tragically died of CO poisoning when he was 10 years old. We supported the Dominic Rodgers Trust by marking what would have been Dominic's 21st birthday on 30 April 2014 by raising awareness of CO both internally and externally. Over **200** of our staff took part in a CO survey with **97%** aware of the need to have gas appliances installed and serviced annually by a Gas Safe registered engineer and **75%** having a CO alarm at home.

Our frontline engineers gave out information to members of the public as they attended emergency calls. Recognising the particular risk to residents of park homes our staff visited two sites, distributing leaflets and discussing the dangers with residents. One pregnant resident who recognised that she was experiencing the symptoms of CO shown on our leaflet, acted on this advice by calling the national gas emergency service. Our engineer confirmed CO, made the property safe and she and her unborn child were treated at the local hospital.

### CO awareness during power cuts

Following on from the work we've carried out with SSE on vulnerable customers in 2012-13, we recognised that customers can become vulnerable when they experience a power outage. We provided the materials to SSE for a customer awareness campaign across our joint media and social media channels as this was an effective way of reaching vulnerable customers.

We'll be able to measure the benefit by SSE logging where it has issued the information during a power outage.

### TWITTER FEEDBACK

During a storm, make sure the only thing knocked out is the power. Never run a gas, petrol or diesel-powered generator indoors. Take care, be CO aware.

 @SGNgas

### Training for Frontline Care Workers

The charity Dying to Keep Warm told us that research shows that frontline care workers need training on recognising unsafe gas situations.

We have the relevant skills to provide this training and wanted to develop an accredited qualification as part of their training rather than simply providing advice on a factsheet. Together, we've launched a new training programme – Gas Safety in the Home that aims to:

- Educate frontline workers and raise their levels of risk awareness so that vulnerable people are identified, and risks to their health can be reduced or managed proactively
- Provide emergency safety interventions to prevent serious harm and death for vulnerable people from the cold, fires, gas leaks and CO poisoning
- Give frontline workers real life reference points and examples to work with in order to broaden their knowledge through shared experience

- Offer solid and tangible support by providing checklists and procedures to follow in most case scenarios

The material has been written and we're about to trial the concept with partner agencies e.g. social services, fire and rescue, housing associations and care and repair groups that we are already engaged with in the Scottish borders. The next stage will be to scope the accreditation process. Once trialed and passed by the relevant accreditation board, training will be available for all agencies to use.

## ► Driving change

### Lobbying for change

Research from the Downstream Incident Data Report indicated that the private rented sector is the most vulnerable and at risk from the harm of carbon monoxide (CO) poisoning. In order to address this we supported the UK Government with industry knowledge and briefing MPs to ensure a bill passed through government to make installation of CO alarms mandatory in the private rented sector. We drafted an amendment for Baroness Finlay (Chair of the All Party Parliamentary CO Group) to introduce this to the House of Lords, briefing her and Andrew Bingham MP and it was endorsed by the latter in his private members bill. The bill was passed and will become law in October 2015.

In November 2014 we delivered a presentation on gas safety and CO presentation to the public and private landlord sector at the Cross Party Safety Group in the Scottish Parliament. We've been asked to join the group which meets on a quarterly basis chaired by Clare Adamson MSP.

## ► What's next

### Grassroots awareness

- Complete a holistic review of all our communications around CO awareness to ensure it meets the needs of all customer groups in particular the most vulnerable
- Develop an education package with Go Safe Scotland and roll-out to all secondary schools as part of the curriculum

### Partnership working

- Review success of current partnerships with organisations such as Fire and Rescue, RVS and Edinburgh Risk Factory to inform our strategy to promote awareness and behavioural change
- Share learning from collaborative DNO/GDN initiative to raise awareness of CO dangers during power cuts and encourage replication nationally

### Driving Change

- Review our strategy for influencing policy based on the national research commissioned by GDNs building on our successes with European, UK and Scottish parliamentary groups



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