

Discretionary Reward Scheme 2018-21



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Introduction

We play a crucial role in maintaining, repairing and replacing gas pipes across four of the eight gas distribution networks (GDNs) in the UK. We strive to make things easier, fairer and greener, whilst taking care of an essential and vital public service.

We are responsible for ensuring the safe and reliable flow of energy, warming homes and powering businesses. We're proud to be at the heart of heat and work closely with our communities to keep them safe, warm and connected, providing extra care for those who might need it in a gas emergency. As part of this we also manage the National Gas Emergency Service telephone number on behalf of the gas industry.

Our purpose is to **keep people warm whilst protecting the planet** by setting standards all of our customers love and others aspire to. This is underpinned by four strategic objectives: tackling climate change, being trusted to act for our communities, delivering a quality customer experience and maintaining a safe and resilient network.

The RIIO framework

To ensure that GDNs keep customer bills as low as possible and improve the services we provide, we are regulated by Ofgem under a price control framework called RIIO, which is designed to mimic the effects of competition.

The RIIO framework stands for Revenue=Incentives+Innovation+Outputs and is designed to encourage companies to:

- Put stakeholders at the heart of their decision-making process
- Invest efficiently to ensure continued safe and reliable services
- Innovate to reduce costs for customers now and in the future
- Play a full role in delivering a low-carbon economy and wider environmental objectives.

Discretionary Reward Scheme

The Discretionary Reward Scheme (DRS) is an incentive set by Ofgem for gas distribution networks to demonstrate how our activities serve the best interests of our customers and communities, specifically in the areas of social, carbon monoxide and environment.

This submission is made up of three sections, with two pages dedicated to each of these three areas. However, the full range of our achievements and outcomes for customers can be seen across both the Collaborative Discretionary Reward and the Stakeholder Engagement Incentive submissions for 2021.

The reporting period for the DRS covers the last three financial years, and we are proud to share how we have built on our strengths since our last submission in May 2018.

Delivering value

We have included delivering value tables in which we have highlighted several key outcomes and benefits alongside each theme within the submission.

RIIO-1 Highlights

Over 11,000 km

of metallic pipe replaced with polyethylene pipe

36

biomethane connections on our network

34,905

fuel poor connections

22,042

PSR registrations

96%

of our waste recycled

156,138

carbon monoxide detectors distributed

20%

improvement in our customers' CO awareness

108,900

individuals reached through our CO education programme in schools

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Dr Tony Ballance shares how we have built on the successes of previous years and the solid foundations of our robust strategies and engagement programmes.

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Carbon monoxide

We are proud to be leading the industry in raising the awareness. We have shared our innovative approaches through collaboration and partnerships.

See pages 02-03



Social

Our customer vulnerability strategy recognises that all customers are unique and that their individual circumstances today could be different tomorrow.

See pages 04-05



Environmental

Our strategy focuses on how we operate our business in a low carbon way and enable others to use green gases.

See pages 06-07

Welcome by Dr Tony Ballance

Chief Strategy & Regulation Officer

As we have come to the end of one regulatory period (RIIO-1) and begin another (RIIO-2), this is a pivotal point to reflect on the past eight years and the critical role we have played in our communities.

We have continued to keep people safe, warm and independent in their homes by providing the essential service of maintaining and upgrading the gas network and connecting people to the gas grid in our four regions.

During the past three years we have completely transformed our business operations and culture: putting customers and stakeholders very much at the centre of all we do, whilst maintaining the highest standards of safety and service levels. We have invested significantly in our people, processes and systems to provide colleagues with the skills, tools and information they require to deliver the best outcomes for our customers and communities.

However it is the role we play beyond delivering our core services that can often have the greatest impact on our communities.

We have doubled the number of people who are responsible for delivering our environmental, social and carbon monoxide (CO) awareness ambitions and we have appointed Board and Executive sponsors for each area. Since I joined Cadent in April 2020, I have been keen to apply a more strategic and focused approach to the work we do in this space and have encouraged us to test our strategies regularly with senior stakeholders and our critical friends panel to keep them fresh and relevant.

Our stakeholders and customers have asked us to make life **easier, fairer and greener** for the people we serve. This ethos is supported wholeheartedly by a committed senior leadership team that recognises the significant contribution we can make in establishing a 'green economy' and reducing inequalities through 'levelling up'. These approaches are fundamental to building back better as we move towards life after the pandemic and outside of the European Union.

As with all organisations, the COVID-19 pandemic has dominated the past year and impacted us in ways none of us could have imagined – and it's no exaggeration to say that things will never be quite the same again. We have tried to help wherever we can in our communities, and this was exemplified by the extensive volunteering activities that so many of our colleagues signed up for during the lockdown periods.

The pandemic has shone a bright light on the way in which we consider customer vulnerability and has shown that anyone can find themselves in vulnerable circumstances. We have worked incredibly hard to increase the inclusivity of our services, making them truly accessible for everyone, irrespective of their personal situations.

Despite the challenges created by the pandemic, we have been able to build on the successes of previous years and the solid foundations of our robust strategies and engagement programmes. We have strengthened our relationships with our supply chain and strategic partners, working together to share information and embed

best practice. This has enabled us to be innovative and agile in our responses to the needs of customers, partners and stakeholders.

Our proactive approach has allowed us to deliver better outcomes from our CO, social and environmental commitments and I am very proud of the leadership we have shown in these areas. Our initiatives of Safety Seymour, Bounty Packs and billboard advertising for CO awareness have been adopted by all GDNs. We have been at the forefront of developing a single Priority Services Register, working closely with the water and electricity sectors to refine needs codes and produce smarter actions.

Finally, noting our thought leadership in driving the decarbonisation of heat agenda, we were the only gas network company to be invited to sit at the Prime Minister's virtual round table as part of the launch of the Government's 10-point plan.

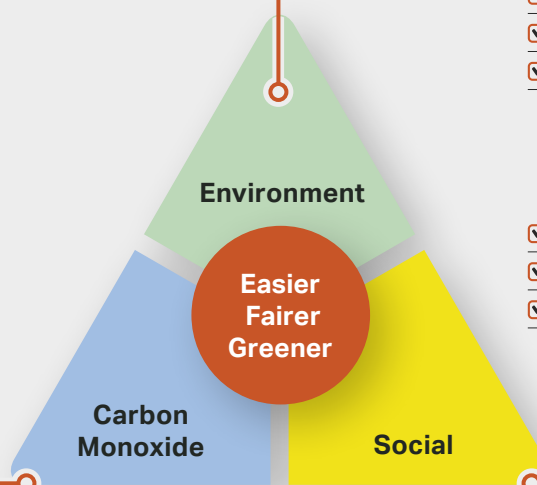
We have come a very long way since we separated from National Grid in 2017 and produced the last Discretionary Reward Scheme, and I am delighted to share our achievements with you in our final submission.

We believe that it is vital for organisations like ours to create social value by positively contributing to local communities and supporting the most vulnerable in society, as well as reducing the impact of our operations on the environment and taking an active role in combatting climate change.

Dr Tony Ballance
Chief Strategy and Regulation Officer

Summary of our strategic themes

- ✓ Preventing CO poisoning
- ✓ Distributing CO alarms
- ✓ Increasing our reach



- ✓ Cleaner, greener ways of working
- ✓ Green gas transition
- ✓ Supply chain efficiencies

- ✓ Safeguarding communities
- ✓ Increasing PSR awareness
- ✓ Reducing fuel poverty

- ✓ Senior leadership
- ✓ Stakeholder engagement strategy

- ✓ Customer vulnerability strategy
- ✓ Investment in our people

- ✓ Investment in systems
- ✓ Partnership working

Our strategies are informed by robust data that enables us to develop and deliver solutions that support our customers and identify areas of our networks where we can make a difference.

Carbon monoxide

Keeping customers safe



Carbon monoxide (CO) is the 'silent killer' that continues to put families at risk. Every year in England and Wales around 60 people die from CO poisoning, with 4,000 people seeking advice from their GP or Accident and Emergency unit, and 200 being hospitalised. This number is far too high and can be reduced with targeted action.

Insight at the heart of our initiatives

Four out of the top five cities in the UK most at risk from CO poisoning are in our footprint. However, it is not just those who are considered to be the most vulnerable in society who are at risk of CO poisoning – only around 45% of homes have a working CO alarm installed.

We have continued to take a leading role in finding new ways to educate people about CO, as we believe that these deaths and incidents

are avoidable if households are made aware of the dangers and provided with alarms.

To enable us to target our CO awareness activities effectively, we have used a range of data points which have helped us to identify the areas in our regions at greatest risk, select the most appropriate solutions and deliver the best outcomes.

We have been proactive in sharing our approaches with GDNs and other parties.

We're educating the next generation

Extensive research has shown that children are up to twice as likely as adults to influence parents, grandparents and others into taking action relating to safety, health or green initiatives. As this is such an effective way of raising awareness of CO poisoning, we have invested significantly in developing educational programmes for children aged between 5 and 11 years old. Through these engagements, we are creating thousands of carbon monoxide ambassadors to help raise awareness and educate their family and friends.

Safety Seymour, the bear on a non-stop mission

In 2015, we created Safety Seymour, a cuddly caped crusader on a mission to educate children specifically in Key Stage 1 on how they can protect themselves and their homes from CO through a series of classroom-based teaching sessions. During the past three years we have evolved Safety Seymour to make the teaching even more relevant and interactive. We have strived to lead by example and embed best practice across all networks, and we are delighted that all GDNs now use Safety Seymour.

In April 2020 we led the creation of the collaborative Safety Seymour website. The innovative, fun and engaging website allows all GDNs to reach more schools, children and parents outside the classroom and helps create a consistent CO message across the UK. We were also the first company to host a Pipeline Industries Guild webinar educating children and their families on CO safety using a specially adapted Safety Seymour session.

CO awareness on Amazon

We have partnered with Project SHOUT, who are also members of the All-Party Parliamentary Carbon Monoxide Group (APPCOG), to promote the Safety Seymour website and the importance of buying an audible CO alarm. With 90% of UK shoppers using Amazon, we were able to create a Safety Seymour advertising banner for amazon.co.uk on pages selling CO alarms with a direct link to our website, which saw a total of 748 visits and over 200 CO alarms purchased via this route.

CO messaging during the pandemic

During the COVID-19 pandemic and the closure of schools across the country, we worked quickly to adapt the Safety Seymour programme to ensure that children could still access our important CO messaging outside the classroom and stay safe at home. This included:

- Creating online versions of the classroom-based lessons using Microsoft Teams and Zoom technology
- Replacing our Safety Seymour teddy with a 'pop out and make' version and encouraging children to upload pictures of their Safety Seymour with an appliance in their home via our website
- Providing each child with a Safety Seymour branded face mask to help them stay safe during the pandemic and further raise awareness of carbon monoxide across our communities

"It worked very well doing the sessions via Teams. The children were as engaged as they have been previously with face-to-face sessions. The activities worked well, they are well planned and delivered."

A teacher's thoughts on the adapted online programme

The CO Crew – a digital platform to reach more children

Following the success of Safety Seymour, we created The CO Crew in 2020 with a specialist education provider to target older children and increase the breadth of our CO awareness and gas safety messaging using digital platforms.

To ensure the content was inclusive and fit for purpose for Key Stage 2, we held facilitated workshops with 15 schools. Their feedback resulted in us making adaptations for pupils with special educational needs and developing our diverse CO Crew characters, Mimi and Loz.

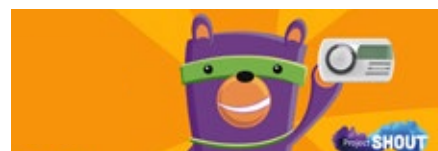
The CO Crew is delivered virtually for schools and is completely free and teacher-led. Learning is supported by our interactive CO

Crew website, which is accessible, informative and fun with various activities ranging from dances and craft through to spotting the signs and symptoms of CO. Having an online solution for raising awareness with older children was particularly important during the lockdown periods and home-schooling.

Safety centres

Across the country there are 15 purpose-built safety centres dedicated to helping children from ages 6 to 10 to stay safe in all aspects of day to day life. We have continued to develop and grow our partnerships with safety centres in our regions and target high risk areas. Working originally with Hazard Alley in Milton Keynes (Eastern), we are now partnered with Safety Central (North West), Danger Point (North West) and Warning Zone (Eastern). By sponsoring the kitchen area within the home safety areas of the safety centres, we are ensuring that the appropriate information relating to the dangers of CO is clearly displayed and that the training provided by the safety centre volunteers is consistent and accurate. Information is displayed via posters as well as an interactive television screen. There is also a replica boiler onsite where children can see the signs of CO, and this interaction allows them to take the practical learning back to their families and friends. Each child also takes home a safety leaflet detailing the signs, symptoms and how to stay CO safe.

We have shared our approach with the other GDNs through the working group and encouraged them to get involved with the safety centres in their networks.



Carbon Monoxide Alarms
Safety Seymour's here to **keep you safe!**

Delivering value	
✓	30,995 children reached
✓	74,388 families educated
✓	673 Safety Seymour classroom sessions held

The power of working in partnership

Fire and Rescue Services (FRS)

Partnerships have played an integral role in helping us to extend the reach of our services, gain access to additional expertise and specialisms and build trust with our customers, and we have continued to grow these relationships. We now work with all 24 Fire and Rescue Services in our networks and these key strategic partnerships allow us to access, through experts, the most vulnerable people living within our regions, extending our reach beyond what we could achieve alone. Through their 'safe and well' home visits, the FRS target areas and households where they know there is a higher risk of fire, and promote our safeguarding services to the most vulnerable.

Working with Derbyshire Fire and Rescue Service, we have sponsored two of their community vehicles that make home visits to people living in vulnerable situations, often living in areas that have a high Income Deprivation ranking. These vehicles display gas safety advice and promote the key calls to action of knowing the signs of CO and installing a CO alarm.

Cross-sector partnerships

During the COVID-19 lockdowns in 2020, we needed to find a way to inform customers about the dangers of CO in the safest way possible, including people classed as clinically extremely vulnerable. This was particularly pressing given that those shielding would be less likely to see family members and carers and were thus isolated and more at risk.

Working in collaboration with Electricity North West, we distributed over 60,000 educational gas safety leaflets advising of the dangers of carbon monoxide and the different services available to gas and electricity customers living in vulnerable situations. This was supplemented by over 200 pharmacies in the North West region including the leaflets inside their prescription bags.

Our ambition is to grow this partnership after the positive impact already achieved, and we are exploring printing energy efficiency messaging on pharmacy bags to distribute during the winter of 2021/22. We have shared this simple but effective initiative with the other GDNs who are keen to follow suit.

"Our stakeholders have told us we need to work more with other networks in our area and this project demonstrates that it is possible to combine the great work we all do individually for customers into a simple one stop service for customers to understand the range of support they can access."

Nigel Winnan, Wales & West Utilities



Delivering value

- ✓ **97,138** CO alarms distributed
- ✓ **246,079** CO awareness surveys completed
- ✓ **60,000** pharmacy leaflets distributed

Engaging our communities to drive action

CO Awareness Week

Building on the learnings from previous years of engagement, we held our most successful CO Awareness Week in 2020. Research which we commissioned in August 2020 revealed that only one in five people know the correct signs of CO.

We targeted areas of our networks where reported CO incidents remained persistently high using a comprehensive radio campaign. BBC regional news for the West Midlands also interviewed our CO team, which was broadcast during prime time viewing. Our radio campaign was shared across 15 stations in our most high-risk areas throughout the week. We shared a real-life case study to emphasise the dangers of CO and provided reassurance to communities that the 0800 111 999 emergency number was always available despite the COVID-19 lockdown, and this was published in various national newspapers.

Our social media campaign across Twitter, LinkedIn and Facebook showcased our Safety Seymour and CO Crew programmes. We saw 207,417 social media impressions in the known CO hotspots within our networks and reached 202,814 through a targeted Facebook advertisement. This was the first time we had actively promoted CO through this channel and is something we will continue to do, as it is excellent value for money and has proven to be very effective.

To target those who are digitally excluded, we contacted 319 Members of Parliament across our footprint and provided key CO information from our campaign which could be shared amongst their constituents.

Tackling social isolation in rural communities

Loneliness increases with age and has been compounded by the COVID-19 pandemic creating high risk groups. Warm Hubs create a safe, warm and friendly space for communities to come together. Our aim is to combat the issues of social isolation and loneliness that are so prominent in rural communities, while also offering residents gas safety, carbon monoxide and energy efficiency advice as well as enabling other agencies and partners to attend.

We have partnered with Warwickshire Rural Community Council (WRCC) to deliver a network of Warm Hubs across the Warwickshire and Solihull area. Our first Warm Hub was successfully launched in the village of Shotteswell in December 2020, with warm festive breakfasts being delivered to 126 local residents, many of whom are isolated and elderly. Villagers also received free safety messaging, carbon monoxide alarms and heated seat covers.



"Community volunteers in Shotteswell have been showing real community spirit and ingenuity in adapting the Warm Hub concept to the age of COVID-19. It was a real pleasure to see that warmth (and warm breakfasts) being distributed around the village."

Jeremy Wright, MP

With the continued challenges presented by the pandemic, we've also developed a mobile Warm Hub. This is a repurposed, upgraded vehicle which drives to deprived, often isolated communities, bringing a Warm Hub event to those in the community who may not be able to travel by car or access public transport.

Our ambition is to expand our network of Warm Hubs in Warwickshire and engage other regional partners across our footprint to deliver Warm Hubs to targeted, deprived communities.

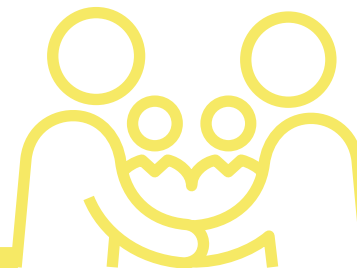


Delivering value

- ✓ Reach of **410,231** via our social media CO awareness campaign
- ✓ Plan to target approx. **2,400** Warm Hub customers per annum
- ✓ **£8,000** initial Warm Hub investment

Social

Providing services to all



We're committed to providing services for all and making a positive impact in our communities. Our social impact ranges across multiple levels, including how we engage ethically with our supply chain, our fundraising, charity partnerships, our EmployAbility programme (which offers first time employment to individuals with special educational needs and disabilities) and employee volunteering programmes.

Customer Vulnerability Strategy

Our Customer Vulnerability Strategy recognises that everyone is unique and that their individual circumstances today could be different tomorrow. It reflects the need to understand and prepare for these changes before they happen so that we can adapt and respond to provide the services all our customers love.

Our strategy has been developed with customer insight and feedback from stakeholder engagement, including experts in consumer vulnerability.

Services for All

The overarching principle of our strategy is not to utilise labels and categories, but to provide services to all, recognising the specific circumstances of each customer, individually, and tailoring services to meet their needs. We work with a diverse mix of carefully chosen partners to ensure that the appropriate skills and services are deployed in a professional and timely manner.

Details of our social mobility and diversity and inclusion initiatives are covered in our Stakeholder Engagement Incentive submission.

Targeting the areas that need most support

Developing a universal Priority Services Register (PSR)

During RII0-1 we have led the way to create and embed a single PSR for all energy customers, and defined needs codes that allow all energy companies to better understand customers' requirements and respond accordingly. As the industry project sponsor, we brought together electricity networks and water companies to create this much needed change to drive smart actions and better experiences for customers.

Our insights informed us that customers who are unaware of the PSR are far less likely to understand the essential benefits and range of additional safeguarding services that are available to them.

Through a range of best practice initiatives highlighted here and in the Collaborative Discretionary Reward and Stakeholder Incentive submissions, we have seen our PSR registrations increase on average by 30% year on year, allowing over 17,000 customers to access the support and safeguarding services they need to keep them safe, warm and independent in their homes.

Utilising data to identify priority areas

Our bespoke Social Indicator Mapping Tool (SIMT) highlights areas in our footprint where multiple vulnerabilities are prevalent. It uses real time data to ensure our engagement is targeting the right demographics and locations and helps us prioritise our activities to create the largest impact. The SIMT allows for multiple data overlays, which strengthens our approaches in targeted areas. It also helps us understand where we can work best with partners to address key issues. We share access to our SIMT with our strategic partners and together we have a unique view on growing issues that directly impact the lives of our customers and colleagues.

Adapting our practices to meet customer needs

The highest suicide rate in the England is among men aged 45-49, and men remain three times more likely to take their own lives than women. Our insights tell us that individuals among the most deprived 10% of society are

more than twice as likely to die from suicide than the least deprived 10% of society and that two out of three of those who take their own life are not in contact with support services.

As our knowledge deepens and customer needs change, we have continued to build on the SIMT's capability so that we can access the most up-to-date insights on this issue. In early 2020 we added two new data layers to inform our mental health and suicide prevention work. The first layer is males living on their own and the second is males who are under 50 years of age.

We have worked with the Zero Suicide Alliance, who have developed a suicide prevention online training package which we shared with our employees via the Safeguarding Knowledge Portal (SKP) to equip them with the right knowledge to look for signs when in customers' homes.

Fuel poor predictor model

Along with our strategic partner, Affordable Warmth Solutions (AWS), we have jointly funded and developed the Fuel Poor Data Predictor Model. The algorithm within the model uses publicly available data and an artificial intelligence application to predict household fuel poverty status – with over 75% accuracy without having to complete costly and intrusive home visits. This is a significant increase on our previous methods of identification, which were approximately 50% accurate.

The model generates two main outputs including a household level fuel poverty prediction and a confidence level in the fuel poverty prediction (households are classified as high, medium or low confidence).

We use the model as part of our fuel poverty strategy to help predict the fuel poverty gap for every home that has an Energy Performance Certificate (EPC) rating – there are approximately 16 million EPC ratings today. We can also identify which homes are fuel poor at a given EPC rating, which helps better direct energy efficiency measures. It also indicates which fuel poor homes are on or off the gas grid, which helps qualify them for subsidised or free gas connections.

The application of this tool has made us more effective at targeting our work to support those truly in fuel poverty. This has made us

more innovative in finding solutions, increasing the pace at which we can provide services to help us take people out of fuel poverty sooner than we could otherwise.

Collaborating to provide advice on the go

Working in partnership with Age Concern Central Lancashire, Northern Gas Networks, Electricity North West and United Utilities, we have created an innovative method of reaching isolated customers living in vulnerable situations through our Mobile Advice Centre (MAC). Traditionally we have used community centres and sports halls as central meeting points but this relies on customers being near to the venue and having transport available to attend.

The MAC is an upgraded re-purposed vehicle which creates a safe, warm environment for customers to receive safeguarding messages from the industry as well the support available from local services. As the MAC visits various regions, we are able to use our data to tailor the messages and services to the needs of the local communities.

The MAC in our North West network targeted fuel poverty and carbon monoxide hotspots in Liverpool, Greater Manchester, Blackpool and Central Lancashire, which were identified by bringing together information held by all utilities participating.



Delivering value

- ✓ **30%** increase in PSR registrations
- ✓ **25%** improved household fuel poverty status accuracy
- ✓ **SIMT continual development**

"We're looking forward to customers seeing for themselves how utility companies have come together to offer support and advice when it's needed."

Amanda Phillips, Priority Services Partnerships and Engagement Lead at United Utilities

Equipping employees to deliver social value

We have created a range of tools to help all our customers understand the safeguarding services we provide and the range of additional external support services available, so that we and others can better serve their needs.

Safeguarding Knowledge Portal

A key objective of our strategy is to ensure that the needs of all our customers are understood by colleagues and acted upon in a respectful and relevant way.

We have created a Safeguarding Knowledge Portal (SKP) to support our 6,000 employees, whether they are on a customer's doorstep or talking over the telephone, so they can access information and guidance to support our customers. This has created a consistent approach and equal access to the services we offer by fully informing our employees and creating better outcomes.

The SKP includes information about the PSR and how to register a customer, our range of safeguarding services and products, and our bespoke safeguarding training including initiatives such as Utilities Against Scams.



"I have been very concerned in the past about elderly customers in a vulnerable situation who are off gas. Some of these customers are on top up meters, which often indicates fuel poverty. This additional information to offer to customers to take to their suppliers will be really helpful."

Dave, Cadent frontline engineer

Isolation and loneliness

A survey of UK adults revealed 1 in 4 people said they had feelings of loneliness during the UK's national lockdown, compared to 1 in 10 previously. Long-term loneliness is associated with an increased risk of mental health conditions including depression and anxiety. Recognising this, we created training modules to increase employees' understanding of how to effectively support family, friends, colleagues and neighbours who may be suffering from loneliness and isolation during the pandemic and to recognise signs in their interactions with customers. We also empowered our engineers to run errands for customers, providing them with an allowance to make small financial contributions to pay for shopping or prescriptions.

Instant referrals for customers in need of extra support

We directly engage with thousands of customers every day, so identifying a customer in need of additional support is something we often experience. Providing each customer with the contact information

they need for additional support services or making the call on their behalf to local services is potentially life changing.

That's why we created and launched our referral system companywide in 2017 to enable our frontline colleagues to connect customers to the right support services within their area. That support could be anything from handyman services, befriending services and home adaptations right through to social services and social care offered by local authorities.

We review the system regularly by mapping postcode polygon areas which our partners cover, and cross-reference this with the services they offer. This allows us to see gaps indicating that we need to reach out to new partners. By uploading and refreshing the referral system with new and established partnerships and with third-party organisations, we've held around 500,000 conversations with our customers resulting in up to 11,000 direct referrals each year.



Delivering value

- ✓ **21,763** SKP views
- ✓ **c.500,000** conversations with our customers to understand their needs
- ✓ **11,000** direct referrals each year

Tackling affordability and fuel poverty

1.5 million customers living in our networks are currently experiencing fuel poverty. This is 11.7% above the national average. In the most severely affected area, 1 in 5 customers live in fuel poverty. We are committed to playing our part with wider industry and government to tackle affordability and reduce fuel poverty.

Our investment and continued support in the leadership of our strategic partner AWS has driven forward our ambition to deliver social value. We have shared our experiences and best practice with key stakeholders through National Sector publications.

A whole house approach

We have facilitated a 'whole house' approach to tackling fuel poverty. In partnership with Staffordshire County Council, E.ON and a number of third sector organisations, we have provided a range of interventions, tailored to the needs of the household and the customer, which have made a bigger impact on helping to remove a customer from fuel poverty, compared to only having the option of offering a fuel poor gas connection.

We have helped create a unique delivery model with the Staffordshire Warm Homes Fund project and have already supported the installation of 150 new gas connections and new heating systems.

Over £210,000 in additional benefit entitlements has been secured for the most vulnerable households.

Over the last three years, we have invested £23m of funding to deliver over 11,000 new gas connections, whilst securing funding for the installation of new gas heating to these homes.

Enabling the Connected for Warmth programme

'Connected for Warmth' is a scheme offering new gas connections and fully funded new gas central heating systems to qualifying private households that need help with their energy bills. Working with Walsall Housing Group and Agility Eco, this strategic alliance provides funding and support to non-gas households to improve health outcomes for residents.

To date this scheme has delivered around 500 new gas connections and facilitated the delivery of 720 new gas heating systems and 222 insulation measures.

Targeting previously overlooked residential mobile homes

People living in mobile homes can struggle to keep their homes warm using heating systems powered by electricity or liquefied petroleum gas (LPG), which cost more than using a mains gas supply and can be difficult to maintain. Historically it has been difficult to secure funding for in-house measures for this type of accommodation as they don't qualify for support from traditional Government or Energy Supplier schemes such as Warm

Front, ECO or Community Energy Saving Programme or the Warm Homes Discount.

Identified as a key component of the Government's 2014 Fuel Poverty Strategy, we wanted to make a difference to people who are potentially paying over the national average to heat their homes. We created a targeted approach to provide a one-stop shop for mobile home residents, which included new gas connections, conversion or replacement of heating systems, cookers and appliances as well as the provision of energy, debt advice and support. Over the last three years we have supported over 1,400 Park Homes in converting to gas through this groundbreaking initiative.



Delivering value

- ✓ **11,500** new gas connections
- ✓ Supported over **1,400** Park Homes to convert to gas
- ✓ **£23m** of funding invested

Environmental

Playing our part



We all have a part to play in achieving the UK's ambition to reduce emissions by 78% by 2035. We want to ensure that no one gets left behind on the road to net zero and that all customers are given the most effective energy solutions for their varying needs. We recognise that a net zero energy system will require a mixture of low carbon solutions that include electricity and greener gases.

We have long been a leading voice ensuring the gas network is playing a full role in the journey to decarbonise the whole energy system.

Taking proactive and positive action

We have been proactively developing a range of pathways, which are informed by technical and safety expertise, geographical analysis and prototyping, research into consumer behaviour and an extensive stakeholder engagement programme.

We believe that protecting the environment means more than simply minimising our impact; it's about taking positive action to provide a green, responsible and sustainable future for us all. We are continuously improving and finding new ways to deliver the highest standards of environmental performance. We have embedded this approach into our everyday activities and decision making right across our networks, and are focused on

creating long-term benefits for our customers, colleagues and stakeholders.

Environmental Management System

To ensure that we fully manage our environmental obligations, commitments and responsibilities, we work with internal and external stakeholders to identify applicable compliance requirements along with any significant areas of environmental impact. Our operations are covered by an Environmental Management System, which in 2020 was re-certified to the latest ISO14001: 2015 standard. The Environmental Management System sets out our environmental procedures to identify, manage and control potential environmental impacts of our operations and activities.

Minimising our impact

One of the main ways that we impact our physical and wider environment is through the generation of waste, either through spoil resulting from our mains replacement programme, or direct waste such as office waste. We have taken a number of steps over the past three years to manage waste more effectively.

Minimising waste at offices

We have installed recycling units at all our sites, with clear signage to support our employees in disposing of their waste correctly. This has included new stations to recycle used disposable personal protective equipment, which has become prevalent during the COVID-19 pandemic. Our partner, Biffa, provides us with weekly management information, which we use to drive competition and reward amongst sites for those who are high performers in recycling.

Reducing single-use plastics

We phased out all plastic water cups and hot food containers and removed all non-reusable cups across our sites. During the pandemic it has been more difficult to take this further, by fully minimising packaging on food and beverages sold at our sites for hygiene reasons. However, we are fully committed to this when restrictions allow.

Waste to landfill

During the past three years we have significantly reduced our waste to landfill from 14% in 2018/19 to 4%. This has been

achieved by embedding good practices, changing our policies and engaging with and educating our employees. Initiatives such as using low dig and no-dig techniques, inserting new plastic pipe into old metallic services, and using vacuum excavation, which we have shared in previous submissions, have also contributed to this success. This is a huge improvement from 60% in 2012/13, and we are working hard to achieve zero waste to landfill in the next financial year.

To further reduce waste and embed a culture of sustainability amongst our partners and supply chain, we have incentivised our Gas Distribution Strategic Partners to recover, reuse or recycle 90% of the spoil they generate from excavations and street works, and use less than 30% first use aggregate for backfilling. Overall, our partners are currently outperforming these targets.

Recycling our pipe waste

To achieve our ambition of recovering up to 40% of waste pipe generated, we created an innovative tool for our engineers and local delivery partners to search in 'real time' for a specific diameter and length of pipe required for a job. This allows visibility of existing offcuts of pipe which can be saved and used within our operations and can be accessed remotely. In 2019, over 500 tonnes of 'waste' polyethylene pipe was collected from depots within our network. We have worked directly with several key pipe manufacturers to produce a more flexible catalogue of pipe length and diameters, allowing our engineering workforce greater choice to select the right pipe for the job. This is helping to reduce the volume of waste pipe generated by over 20%.

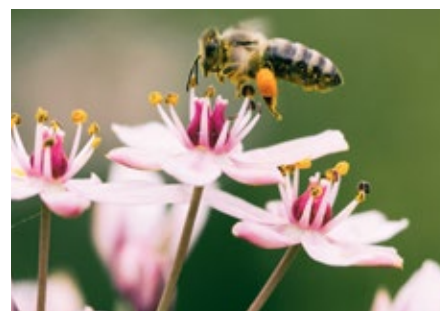
Biodiversity strategy

We are committed to working towards the Wildlife Trust's Biodiversity Benchmark certification for our biodiversity management. We may need, as part of essential works, to remove trees or vegetation. In order to counteract any negative impact this could

have on the environment, we have developed a biodiversity strategy that enables us to limit the impact of our operations and deliver improved spaces for nature by working in partnership with local communities and conservation organisations.

Working with RSK Biocensus, we undertook four pilot habitat surveys across our landholding and developed biodiversity action plans for these sites. Typical potential enhancements identified through these surveys included tree and shrub planting or thinning, wildflower planting, changes to mowing regimes, bird or bat box installation and pond development.

During our routine line walking of the Bacton to Hanworth 6" high pressure pipeline we identified that the depth of the pipe had been reduced over time. The reduced soil cover was found in several arable fields in North Norfolk. During this work, we completed a number of investigations on the land, including soil sampling, which resulted in the planting of 16,000 mixed species hedging to improve biodiversity.



Delivering value

- ✓ **4%** of our waste to landfill
- ✓ Predicted **100 tonnes** of waste pipe avoided per annum
- ✓ **Removal of single use plastics** from our offices

4%

We have significantly reduced our waste to landfill from 60% in 2012/13 to 4%.

Zero waste

We committed to removing all avoidable plastics from our supply chain.

Enabling others to use greener gases

Biomethane connections

The use of biomethane is widely recognised as a key element in the UK's journey to net zero. We continue to support the growth of the UK biomethane sector by turning food, farm and other wastes, otherwise destined for landfill, into gas to fuel homes and transport.

We connected our first biomethane plant in 2012 and now have 36 biomethane producing plants in our network. At full capacity, these sites can supply enough gas to heat over 220,000 homes.

Through cross-utility working, we have also supported Severn Trent Water in commissioning two new biomethane production facilities. One is at its waste treatment sites in Finham on the outskirts of Coventry and the other is at Stoke Bardolph in Nottinghamshire.

Renewable transport with CNG Fuels

Bio-Compressed Natural Gas (Bio-CNG) is also rapidly becoming the fuel of choice for heavy goods vehicle (HGV) fleets operated by some of the UK's biggest hauliers and retailers. The benefits of biomethane versus diesel are huge, providing HGV operators with an average emission saving of 85% and a fuel cost saving of around 40%. This means a high-mileage HGV running on biomethane saves the equivalent of 150 tonnes of carbon dioxide on average per year.

We have worked closely with CNG Fuels to bring a new Bio-CNG refuelling station online in Birmingham, which has the capacity to fill over 500 HGVs per day, seven days a week. The station has been built on land owned and operated by Cadent and uses gas from our network to supply renewable biomethane fuel to road transport hauliers, retailers and local councils with dedicated gas HGV vehicles.

Proving hydrogen at scale

We have invested significantly in our future of gas programme over the past year. Projects such as HyNet and HyDeploy strongly demonstrate that we are leading and collaborating across the sector to evidence the practical, technical, financial and safety credentials of using hydrogen in the UK. The full scope of these projects can be found in our Stakeholder Engagement Incentive submission.



Delivering value

- ✓ **220,000** homes heated by biomethane gas
- ✓ **Cross-utility working** with Severn Trent
- ✓ Extensive **future of gas programme**

Decarbonising our operations

The nature of our business involves transporting fossil gas to millions of homes and businesses and keeping people safe and warm. We transport gas through a series of pipelines of varying materials and ages. As we upgrade our network, the amount of gas that is leaked into the atmosphere reduces significantly and across our networks the leakage rate is now below 0.5%. Although this is a small percentage, it relates to a big number and we therefore have a wide range of strategies and actions in place to reduce it further.

Upgrading our network

Our mains replacement programme, under which we replace ageing metallic pipes with polyethylene pipes, has delivered the biggest reduction in leakage emissions. The programme also makes our network ready to transport greener gases. While the biggest driver of the programme is to improve public safety, approximately 13% of the programme can be determined on other factors, such as leakage rates. We have invested heavily in artificial intelligence and machine learning to help us predict where pipes are most likely to fail, now and in the future, so we can target these parts of the network through our ongoing programme.

We continue to use mains insertion as our replacement technique of choice, as this minimises disruption to our customers. Since the start of RIIO-1, we have replaced over 11,000 km of metallic pipe with polyethylene pipe, delivering a reduction of over 295,000 tonnes of carbon dioxide per year – the equivalent of taking more than 150,000 vehicles off the road.

Network pressures

Day to day temperatures can influence operating pressures in our networks. As it gets colder the pressures must increase to ensure that all our customers get a reliable supply of gas to their properties. We have kept a tight control on our pressures throughout and introduced bespoke operating strategies for our networks to optimise pressures.

Mono-ethylene glycol

Our investment into optimising pressure management along with gas conditioning (applying mono-ethylene glycol (MEG) to joints within the iron pipes) has helped us to reduce leakage by 28%. Leakage at lead yarn joints is reduced by the injection of MEG which swells the yarn within the joint, reducing the rate at which gas leaks from it. We have continued to improve and have increased the volume of treated pipe by 10% since 2018/19.

The future of net zero capital delivery projects

We have been pursuing innovative ways to introduce low carbon methods into our capital delivery projects. Working collaboratively with GeoPura and FastFlow, we have trialled replacing conventional diesel generators with our first hydrogen-fuelled power generator. Fuelled by green hydrogen, we will see a 97% reduction in carbon dioxide emissions – the equivalent to the carbon uptake of 1,500 trees over the duration of the project.

Our hydrogen-fuelled generator will be used to support our works for Meridian Water which is a major £6bn, 25-year London regeneration programme led by Enfield Council.



Delivering value

- ✓ **295,000** tonnes of CO₂ avoided through mains replacement
- ✓ **28%** reduction in leakage
- ✓ Our first **green hydrogen fuelled generator**

Decarbonising our fleet

We have committed to replacing our commercial fleet with 1,100 low or zero emission vehicles by 2026. The total reduction in emissions from the project will be 4,000 tonnes of CO₂ per year.

This commitment provides a unique opportunity to encourage the development and supply of hydrogen vans into the UK market. We took delivery of our first hydrogen Fuel Cell Electric Vehicle (FCEV) in 2020 and now have five in operation. We have also invested in five battery electric Nissan e-NV200 vans as a platform to develop our learning as we work towards decarbonising our wider fleet.

Our growing green fleet also includes two Iveco repair CNG vans, and for movement of large items, we've invested in a joint fleet of nine biomethane trucks with DHL. These vehicles will significantly reduce greenhouse gas emissions, help improve air quality and are cheaper to run, generating cost savings of around 38% compared to diesel.

Introducing a green company car policy

To complement our green fleet commitment, from April 2021 all new company cars offered to our employees are electric and emission free. Any employee opting to receive a cash voucher instead of a company car must purchase a car with emissions lower than 130 g/km CO₂. We have also invested in electric vehicle charging points at all of our main sites and are providing employees with a financial incentive towards installing rapid chargers at their home.



Delivering value


- ✓ **21** alternative fuel vehicles purchased
- ✓ New **hydrogen fuel cell cars and e-vans** are a Cadent first
- ✓ Electric charging points installed at **13** of our sites

#Cadentvoices


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