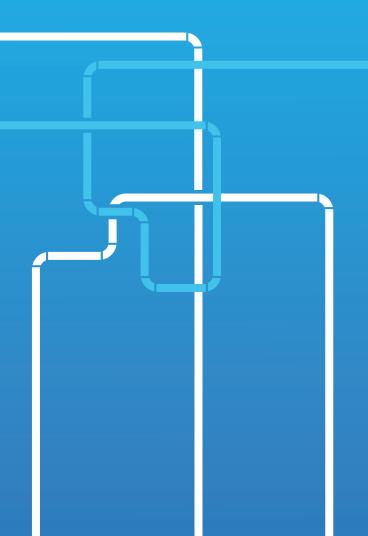


We are the network

Our **2017**Stakeholder Report



Always moving forward

We continue
to deliver a
modern, dynamic
and cost-effective
service for our
customers

We've never been fond of standing still at Northern Gas Networks

As we reach the halfway point of the current regulatory period, our pace of change shows no sign of slowing down.

With 17% of an average household gas bill paying for the distribution service we provide, it's our responsibility to give our customers a great service at a fair price.

In 2016/17, we did this by using new technology and processes to deliver planned and emergency repairs more efficiently; and by making investment decisions driven by a combination of sophisticated analytics, customer feedback and a healthy dollop of common sense.

It was a strong performance, but not flawless. For example, we just missed our target for replacing old metal gas mains with modern plastic ones – so have a little ground to make up in 2017/18.

After another winter in which we saw several major supply loss incidents during extreme weather, and as a result of third party damage, we are continuing to improve the resilience of our network and ensure customers are looked after when the gas goes off.

The UK is grappling with the enormous challenge of delivering clean, affordable and reliable energy supplies, and we are determined to play a key role in the future.

Our new InTEGReL facility near Newcastle, for example, aims to become a UK leader in integrated energy technologies – removing the traditional barriers between gas, electricity, transport and heat to create altogether more fluid and efficient ways to generate, store and transport energy.

Working in a region with high levels of economic and social deprivation, we know the importance of helping vulnerable customers and creating opportunities for young people.

That's why we launched a new Community Promises Fund to support grass roots schemes, and continued to work with our brilliant partners to make a lasting difference to people's quality of life.

Our customer satisfaction scores were our best yet, and saw us ranked second place in Ofgem's league table. There's very little in it these days between the top performing companies, as we all continue to raise our game. Great news for our customers!

Collaboration with our stakeholders continued to underpin everything we accomplished in 2016/17. As the pace of change in the UK energy sector accelerates, it is these partnerships that will ensure we continue to deliver a modern, dynamic and cost-effective service for our customers.

Mark Horsley, Chief Executive Officer



First, a bit about us

NGN in a nutshell

If we had to describe Northern Gas Networks (NGN) in a tweet, we'd probably say: we keep 2.7 million homes and businesses in the North of England cooking on gas.

And if we had a little more room (a Facebook post, for example) we'd go on to say that we don't generate the gas, we transport it, through a vast network of underground pipes.

It's our job to manage and maintain this network, so that it flows smoothly, and our customers can get on with their day.

2.7 million





We deliver gas to the North East, Northern Cumbria and much of Yorkshire.



24/7
We also provide the gas emergency response service for the region.



If you smell gas and phone the National Gas Emergency line -0800 111 999 - one of our brilliant engineers will be out on the double to keep you safe.



Reinventing gas

Our industry faces some big challenges, not least the need to provide affordable, reliable energy supplies in the years ahead, while reducing carbon emissions.

We're looking at the potential of new forms of gas for heating, cooking and transport, such as hydrogen, which can help us meet the future with confidence. See page 21 for more on this exciting programme.

Making sure we deliver

Our regulator, Ofgem, monitors our performance each year, against pre-agreed targets.

We get financial rewards for beating those targets, and penalties if we fall short.

The whole process goes by an acronym: RIIO. That stands for Revenue = Incentives + Innovation + Outputs.

This report outlines our performance in 2016/17 against RIIO targets. If you'd like to delve deeper into our performance, head to **northerngasnetworks.co.uk** and search 'NGN&You' for a full breakdown of how we did against each and every target.

Clever stuff

Look out for our clever stuff stamp to find out how we're investing our innovation funding

Spending wisely

in 2016/17

£130 of the average gas bill pays for the distribution services we provide. We invest that money to keep our network flowing smoothly, to provide a fast and efficient emergency response service, and to ensure we deliver fantastic customer service.

Operating and maintaining equipment to transport gas to you safely and reliably.

This includes managing our pressure reduction stations. 2016/17 saw a £1.4 million overhaul of our Ushaw Moor station in County Durham and £1.7 million of improvements to our Low Thornley site near Gateshead.

£10 Providing a reliable service today That's the equivalent of ten loaves of bread

Innovation and outputs incentives

The cost of one akeaway cup of coffee

This is the cost for improving customer experience and reducing carbon emissions, some of which are featured throughout this report.

£13 24 hour emergency gas service

The cost of fish and chips for two

Our emergency engineers are available around the clock to respond to gas escapes. Over the past year, we have trained additional colleagues to become emergency gas responders – allowing us to ramp up our level of support during the busy winter months.

Here are some of the ways we invested our customers' money in 2016/17.

£43

Funding previous investment in the network

These are the costs

investments to construct

todays network, like a

of repaying past

mortgage.



That's less than the average weekly family ood shop

Taxes and business rates paid to central and local government. This also includes the licence fee for industry regulation.

£21

Taxes and licence fees

The cost of two inema tickets

£40 Modernising our network for the future



We spent £85 million in 2016/17 replacing 475 km of old metal pipes with more reliable plastic versions. The largest projects in 2016/17 were in Yorkshire and included a £780,000 project in Tadcaster, a £456,000 project in Halifax and a £586,000 project in Cottingham.

*£130 based on current GDN methodology.

Happy customers:

our reason for coming to work

Our name might not be on the gas bill, but we never lose sight of the fact that 2.7 million homes and businesses are relying on us every day.

Great service starts with understanding our customers' diverse needs. It's a cliché, but every customer really is different, and the more we can tailor our services, the better the results.

In 2015 we introduced our customer strategy, which places an emphasis on gaining a more sophisticated understanding of our different types of customers and their priorities.

We spent 2016 tailoring our services and testing our approach. We spoke with a wide range of customer groups, to find out what they needed from their local gas service. We also launched a clever new app to help us gather feedback on the spot (see case study on page 7).

These insights helped us improve our website, leaflets and letters to make them easier to understand, with more options for non-English speakers and the visually impaired.

It inspired us to recruit multi-lingual customer care officers to break down language barriers in neighbourhoods with large numbers of non-English speakers.

And it prompted us to improve the way we tell customers about our roadworks, through real-time information on our website, and advanced notice through the letterbox.

We encouraged our colleagues to become Dementia Friends - because we understand how important this is to serving an ageing population.

And we worked with other organisations to deliver a more joined-up service around

big national initiatives such as smart meters, in order to minimise problems for local communities.

These efforts all translated into another set of high marks in the annual independent customer satisfaction survey conducted on behalf of our regulator, Ofgem.

We continue to hold the number one position for customer satisfaction overall since 2013. The performance margin between distributors is tightening all the time – as we all continue to raise our game. Great news for customers!

Highlights

Clear communications: a revamped website, improved customer literature and more translation services helped our customers get the information they needed.

Award winning complaints handling:

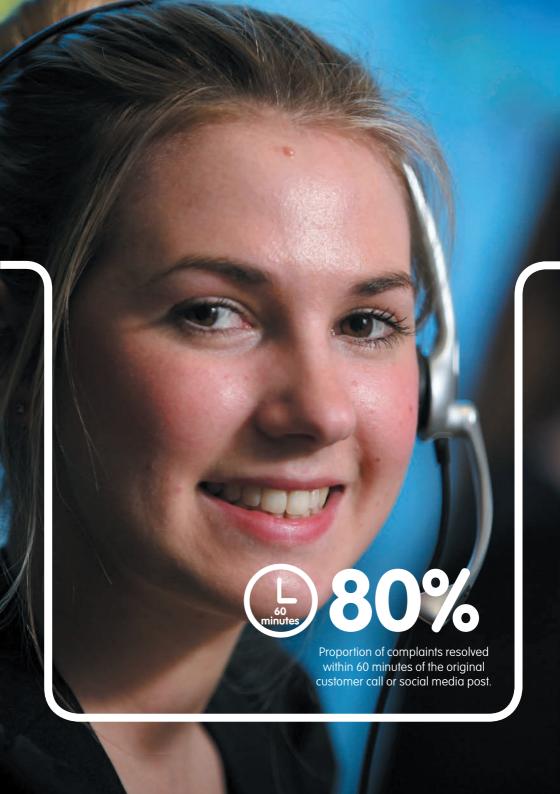
speedy and effective resolution of complaints saw us win a national UK Complaints Handling Award.

Highlighting the holes: we notified customers about roadworks 12 months, 3 months and ten days before engineers rolled into town.

Smart thinking: we worked with energy companies to support a smoother roll-out of smart meters.

-8.90 out of 10

Our Ofgem score for planned work. This equals last year's best ever score.



CASE STUDY

App-y customers

A new app, developed by our clever in-house Programming Team, is helping colleagues have more productive and joined up conversations with our customers.

Called myWORK, the app allows colleagues to gather satisfaction feedback; guide customers through our Carbon Monoxide (CO) awareness survey, and make instant referrals to our Priority Services Register for those needing extra support.

The app has been used more than 5,000 times since it was launched in April, and is now on the smartphones of more than 350 colleagues.

By gathering feedback in this manner each and every day, we can improve our understanding of our customers' priorities, and identify any pressing issues that need to be resolved.

9.46 out of 10

Our Ofgem score for emergency repairs.

Looking back at Withernsea

On a cold, wet Saturday night in January 2017, almost 3,000 homes in the coastal town of Withernsea, East Riding, lost gas supply due to a technical fault on our network.

It was the biggest incident in a decade for our business. Hundreds of NGN colleagues swung into action to get the gas back on and keep the town's predominantly elderly population warm and informed.

We have since held a meeting with key stakeholders from the town to review our handling of the incident.

The feedback was overwhelmingly positive, but among the lavish praise, there were also some useful pointers that will come in handy next time we face a major incident.

For example, it was pointed out that signs directing people to the drop-in centre could be improved, and healthier hot food options provided for those without cooking facilities. We're making changes in response.

Following Withernsea, and other disruptive incidents last year, we have also made the decision to double compensation payments from £30 to £60 for every 24-hours a customer is without gas. The decision, a first for our industry, was made in response to customer feedback, and provides greater recompense for the inconvenience of a lengthy period without gas.

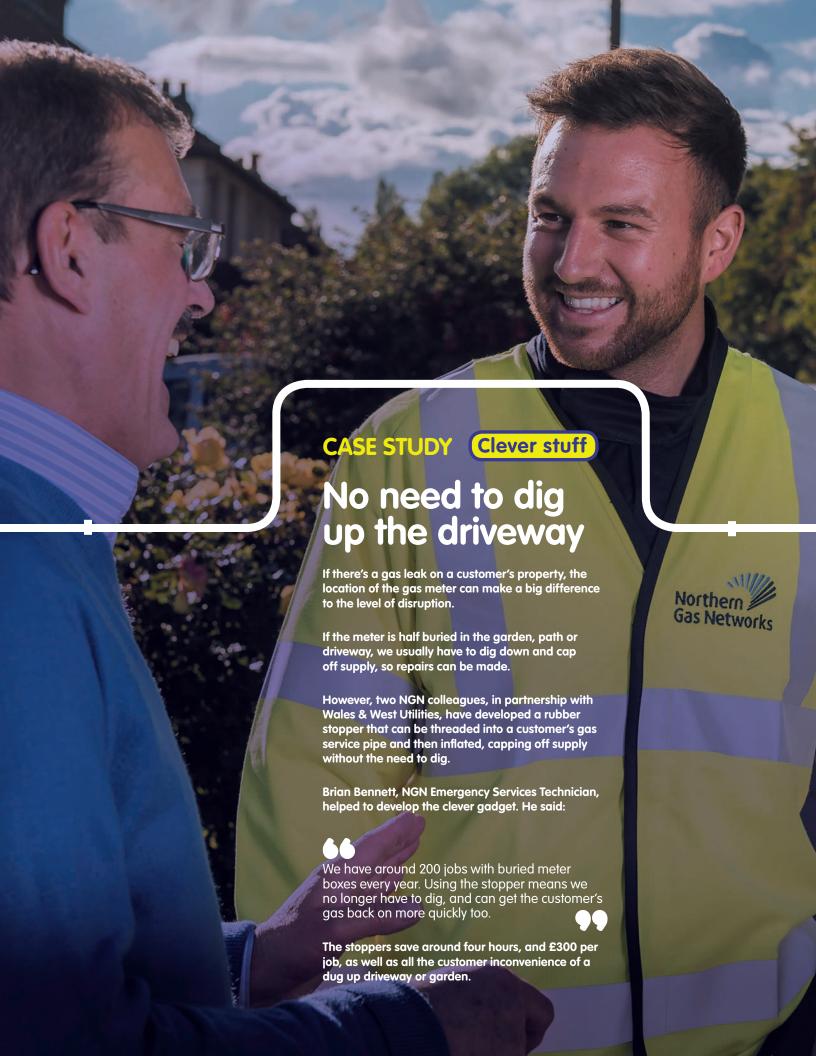


When we turned up on the Sunday morning, we were amazed at how many people were on the ground already. There were vans all over the town and it was quite obvious NGN had pulled out all the stops.

It was particularly impressive when you saw pockets of NGN people working away on their own part of the process, and then every hour or so, all that information would come together and be disseminated.

The response really was exceptional. I'd like to say a big thank you to everyone involved. Without your efforts, we'd probably still be a bit cold!

Jayne Moxon, Town Clerk, Withernsea Town Council



Number of clicks on our interactive roadure map at northernages



98.50%

The proportion of connections jobs completed on the date agreed with the customer – ahead of target.

9.16 out of 10

Our Ofgem satisfaction score for connections in 2016/17, putting us 0.76 points ahead of our target.

99.85%

The proportion of non-standard connections quotes below 275kwh provided to customers within statutory timeframes.

Connecting with our customers



We make around 7,000 new connections to our gas network every year. Jobs are extremely varied, and range from connecting up a typical kitchen extension to large projects for major industry.

These connections are commercial transactions, and customers expect a speedy, reliable service from their very first enquiry. After all, their project is relying on us – and we don't want to be responsible for any hold ups.

In 2016/17, we completed more than 98% of jobs on the date pre-agreed with the customer, and scored 9.16 out of 10 in Ofgem's customer satisfaction survey.

For the most part, we got quotes and other salient information to customers in good time. We lagged behind on just one of our targets – but only just, and we're working hard behind the scenes to improve our performance in this area.

We're well placed to do this with an experienced, commercially-minded team, and an ever more convenient online offering for customers.

For example, our customers will soon be able to get quotes within seconds via our website and track their connection application online.

We also began to review the application process for big industrial customers, so that we can provide a more tailored service.

We continued to benchmark our performance against Council of European Energy Regulators (CEER) targets. Although not currently a requirement in the UK, these tougher standards help to keep us on our toes.

A safe and reliable service



Getting the basics right in any job is essential. In our case, that means providing a safe service, with few supply interruptions, so customers can get on with their day.

To a large extent, we achieved this in 2016/17, but there are still some areas where we need to improve.

We beat our targets for keeping the gas flowing during planned and unplanned work, with fewer interruptions to supply than originally forecast. Less disruption for customers is always a positive thing.

When the roadwork barriers did have to go up, there was a decent chance they would come down again reasonably quickly.

That's because we used clever technology to speed up jobs, filled in the holes more quickly and continued to improve quality control, ensuring repairs were top notch.

Work sites were kept safe, neat, tidy, and with ample consideration for the public and the environment – thanks to the application of Considerate Constructor Scheme principles which are beginning to be applied to each and every job.

When there were leaks on our network, our emergency engineers got out to them pronto, beating our target response times to keep customers safe.

We just missed our target for replacing service pipes - the smaller pipes that connect individual properties, but we're confident that by prioritising terraced streets in 2017/18 we'll make up the shortfall.

-99.76%

The number of gas escapes we got to within the statutory timeframe of 1 hour. We also got to 99.97% of less urgent escapes within the allotted two hour window.

Both scores were ahead of our 97% target.

Highlights

Speedy response: we got out to gas escapes on the double, beating our regulatory targets to keep our customers safe.

Filling in the holes: reinstatement times were cut and we're continuing to change the way that we work so that we can take barriers down even sooner

Gas interruptions: there were fewer interruptions to gas supply than forecast – meaning less disruption for our customers.

New pipes for old: we continued to replace old metal pipes with modern plastic equivalents, prioritising areas where investment delivered greatest benefits.

A safer network: our ongoing investment in our gas network reduced the risk of something going wrong, with a healthier overall risk score than the previous year.

We'll be continuing to modernise our network to ensure a safe and reliable energy supply for years to come.

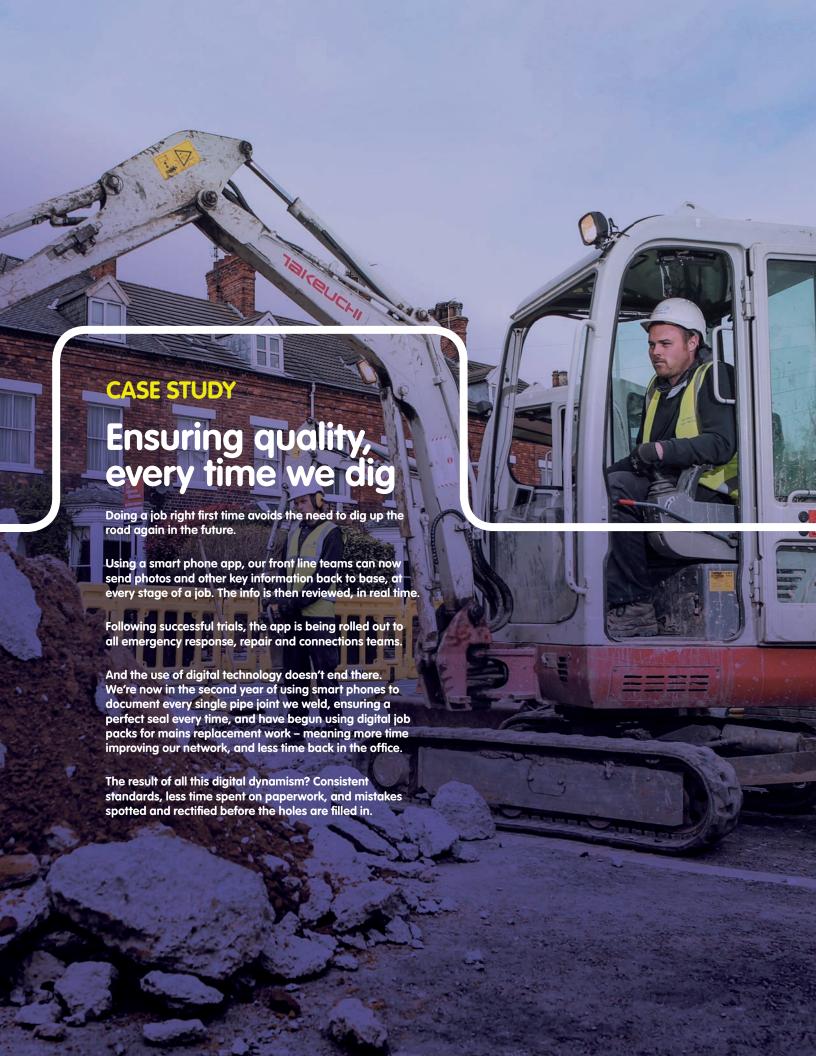
£516,000

Estimated savings by using real-time review of every underground pipe we weld – ensuring a perfect seal every time (see case study).



The total length of time customers went without gas due to unforeseen network issues, such as gas leaks.

Ahead of our target.

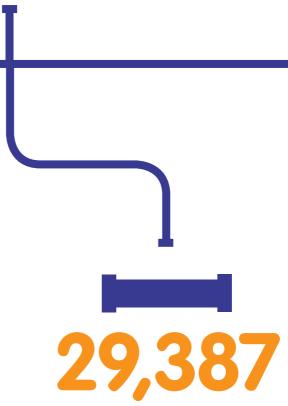




62.3%

The percentage of repairs completed within 12 hours.

Above target.



Number of metal service pipes replaced in 2016/17. Just behind target.

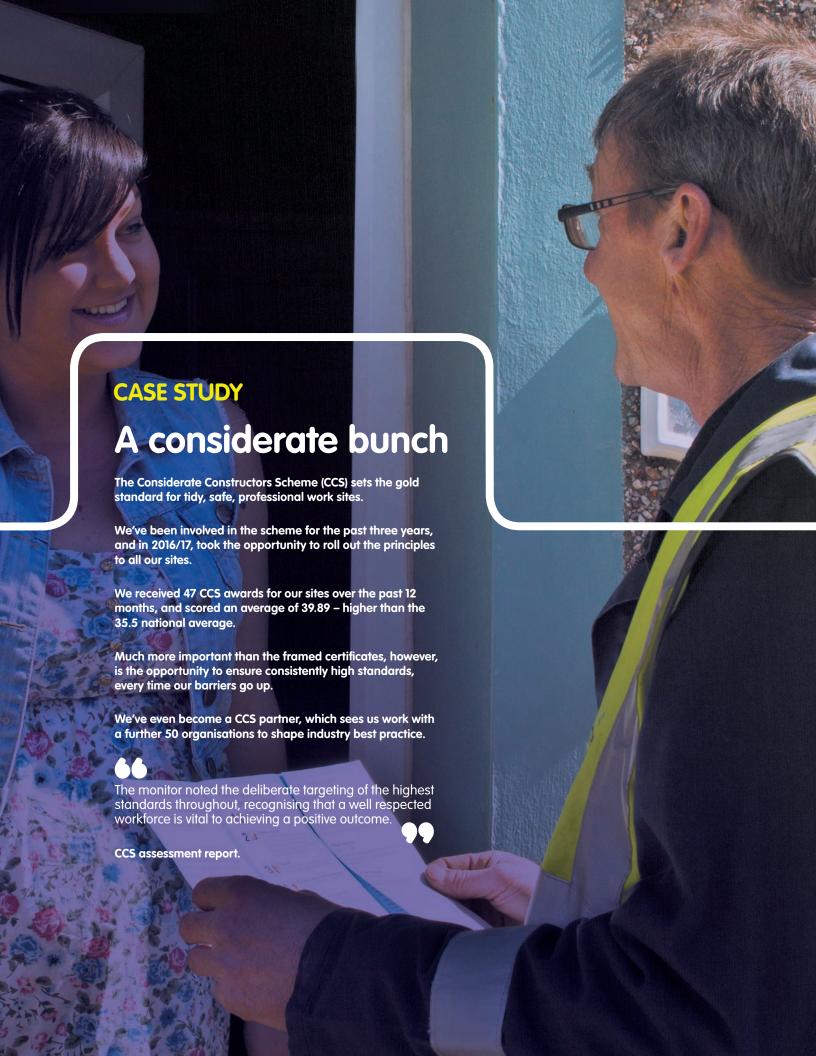
12,427

The number of times the gas went off due to problems on the network. Ahead of target.





The number of national Considerate Constructors Scheme awards won by our sites in 2016/17.



The gas is greener

Keeping 2.7 million homes and businesses cooking on gas is a resource-intensive business.

It's our responsibility to reduce our dayto-day carbon footprint, while helping greener alternative fuels to flourish.

Reducing the environmental impact of the holes we dig has long been our Achilles heel. In the past three years, we've missed our internal targets for recycling spoil and using less virgin aggregate. This year, however, we turned a corner – meeting or exceeding our targets through some great collaborative work with our partners.

Gas escapes are by far our biggest environmental issue, as they contribute to harmful greenhouse gas build-up. Ongoing investment to replace leaky metal pipes with more reliable plastic ones, combined with sophisticated management of gas pressures, meant we hit our targets for reducing the amount of gas which disappeared into thin air.

There was more good news when it came to our business carbon footprint. We reduced the day-to-day environmental impact of our work by making our offices and depots more energy efficient.

Colleagues across the network were also busy getting green fingered throughout 2016/17 clocking up almost 400 volunteering hours with Yorkshire and Durham Wildlife Trusts to help build fences and clear scrubland and pasture land.

Unfortunately we didn't hit our internal targets around biomethane, partly due to many developers putting their plans on hold because of funding issues. We're big fans of this green, sustainable gas, and will continue to work with producers to get them connected to our network in 2017/18.

So, plenty to be cheerful about, but still room for improvement. We're on it.





Highlights

Hole lot of recycling: we beat our targets for recycling spoil from roadworks and reducing use of virgin aggregate.

Limiting the leaks: we exceeded our target for reducing 'shrinkage' (gas lost through leakage and other issues) helping to reduce the build-up of harmful greenhouse gases in the atmosphere.

Behind on biomethane: we connected an additional biomethane plant to our network in 2016/17, bringing the total number to 10.

Greener buildings: putting environmental performance to the forefront when refurbishing our offices and depots helped us slash our business carbon footprint.



The amount of virgin aggregate (new soil) used on our work sites. In line with our internal target, and a big improvement on last year.

6,232 tonnes

The amount of spoil (soil and rubble) from our roadworks that gets sent to landfill. Significantly ahead of our internal 13,000 tonne target for the first time.

CASE STUDY

Digging deep for greener roadworks

We've always struggled to recycle the spoil we dig up during roadworks, and to reduce the amount of virgin material we use to fill the holes back in.

A shortage of suitable recycling facilities in our region has certainly not helped matters, but we knew there was more we could be doing.

Over the past 12 months, we've made a determined effort to work more closely with our engineering partners, and the results have paid off.

We launched a competition with the local firms who carry out our mains replacement projects, challenging them to reduce virgin aggregate use in order to win financial rewards. Each firm was provided with a database of suitable recycling centres, and progress reviewed regularly.

We invested £400,000 in two Core and Vac rigs, which reduce the size of the holes we need to dig (see page 12 for more on these).

We joined the recycling working group of the Highways and Utilities Committee, to work with other utility partners to lobby for new recycling facilities.

And we even helped one of our engineering partners set up a new aggregate recycling centre in North Yorkshire – an area short of this type of facility.

The result of all this collaborative working? Spoil sent to landfill reduced by more than 11,000 tonnes, and the use of virgin aggregate by 16,380. Encouraging results, and a good platform to build on.

CASE STUDY

Gas holder demolition:

supporting the environment, and the community

Gas holders are relics of the age of town gas, and the structures are no longer needed.

In 2016/17, we demolished seven of these holders, as part of a rolling programme. The sheer size of the structures, and the possibility of contaminated material, requires an environmentally sensitive approach.

When demolishing the Minton Lane gas holder in North Shields, for example, we removed 10,800m3 of contaminated water, 82 tonnes of oil and 54 tonnes of highly contaminated sludge.

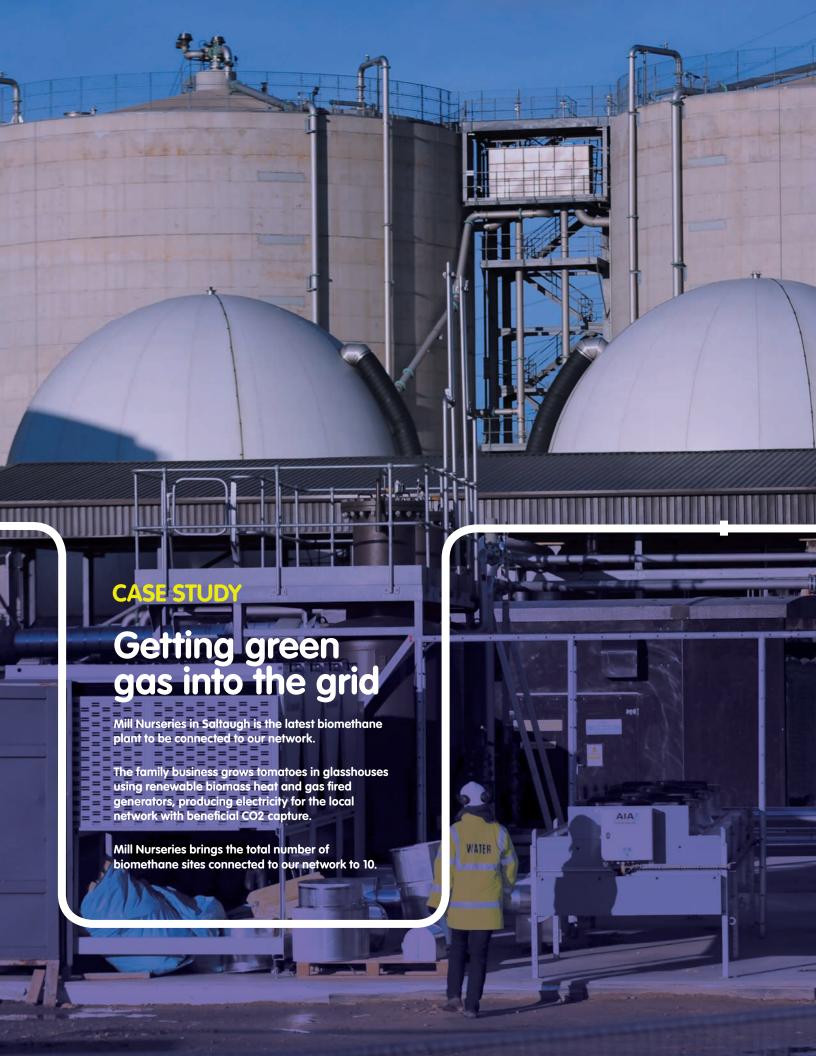
470 tonnes of metal and concrete was shipped offsite for recycling, and to fill the void left by the structure, we used 23,000 tonnes of recycled aggregate from a local supplier.

We also went the extra mile for the local community, by suspending work while students from the nearby school sat their SATs exams. 8,500

Total number of homes that can be powered by biomethane plants on our network, when working at full capacity.

10

Total number of biomethane plants now connected to our network.



Helping our communities to prosper

We know that times are tough for many communities in the North of England. Lots of families struggle with basic necessities such as keeping their homes warm, and opportunities for young people can be scarce.

We feel it's our duty to help, but we can't change the world single-handedly. Stakeholders advised that we should tap into the expertise of local charities and other specialist organisations, in order to do the most good, with limited resources.

In response, we launched a new Community Promises Fund in 2016. This

provides grants of £1,000 to £10,000 for community groups doing vital work at a grass-roots level.

The scheme has awarded £50,000 to a diverse range of projects focused on tackling fuel poverty, raising awareness of Carbon Monoxide (CO) risks, and promoting under-represented STEM (Science, Technology, Engineering and Maths) subjects.

We also continued to develop existing partnerships with the charity Groundwork and The Children's Society, in order to support vulnerable customers.

7,600

The number of Carbon Monoxide (CO) safety briefings delivered to customers in 2016/17.

9,500

The number of young people engaged through our work with the Ahead Partnership.

Young people are the future of our business, and our society, and we continued to work with schools and colleges to nurture talent and expand horizons.

From an outstanding presenter competition for local secondary schools, to work experience placements, safety sessions for younger children and educational trips for disadvantaged pupils, we reached thousands of young people across the region.

All this activity is extremely positive, but it does require focus, to ensure our resources are not pulled in a hundred different directions. Our new **Vulnerability Strategy** sets out our approach and priorities. It's an easy read, and it's available at northerngasnetworks.co.uk.

Highlights

Home energy audits: our Green Doctors scheme, delivered with environmental charity Groundwork, continued to provide home energy advice and help customers stay warm for less.

Supporting teens: on the back of a successful project with The Children's Society in Bradford in 2015/16, we teamed up with the charity once again, to support 900 teenagers in Newcastle who are about to live independently for the first time.

Eye-opening experiences for young students: working alongside Hull Children's University, we provided education trips and mentoring for more than 900 disadvantaged 8 to 11 year-olds.

Vocational training: we continued to work with the Ahead Partnership, a not-for-profit organisation that delivers vocational training for disadvantaged young people.



£70,000

The value of energy savings delivered for local families through the Green Doctors scheme.

CASE STUDY

Making promises to our communities

Eleven grass-roots initiatives are flourishing, thanks to funding from our new Community Promises Fund.

Projects benefitting from our 2016/17 funding programme include:

- Blue sky thinking from air cadets: young people from Yeadon Air Cadets are developing their own Carbon Monoxide (CO) detectors, in a project that raises awareness about the dangers of CO, while developing digital programming skills.
- Help for refugees: the Syrian Community of Leeds supports refugees fleeing from war. Community Promises funding will be used to provide money management and energy saving advice to families.
- Heating for health: Yorkshire Energy Doctor is a community interest company which tackles fuel poverty. Funding is supporting a project to help residents make their homes warmer and healthier

Sally-Anne Greenfield, from Leeds Community Foundation, who is working with us on the programme said:



It's great to see companies playing an active role within their local communities and using their expertise to make a difference.

A wide variety of innovative community projects will benefit, helping to make an immediate difference to local people's lives.

CASE STUDY

Examining the true cost of fuel poverty

Households not connected to the gas grid are among the coldest and most expensive to heat in the UK. Many people living in such properties are at risk of severe ill health.

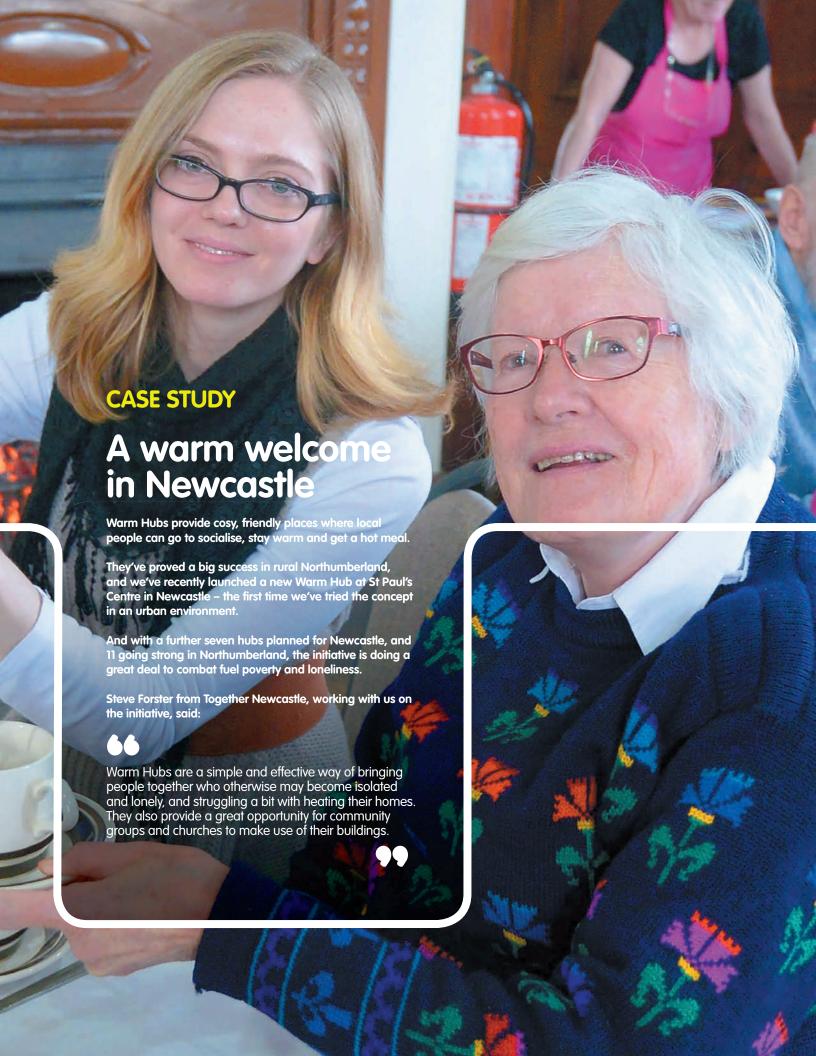
Since 2008, gas distributors have provided free gas connections for fuel poor households. However, the eligibility for connection does not currently take into account health-based criteria, and the opportunity to ease pressure on the NHS.

We'll soon be launching a pilot project to examine the potential savings to the health budget of connecting homes that are not eligible under current rules.

This will see us provide free connections and gas central heating to a group of customers that are not currently eligible, and measure the health cost savings and improvements to quality of life.

2,638

The number of free gas connections made for customers facing fuel poverty. Ahead of our annual larget of 1,917.



Bold thinking, for a greener, cleaner, low cost energy future

As the UK moves towards a low carbon economy, we need to come up with greener ways to power our homes and businesses, at an affordable price tag.

Here at NGN, we've positioned ourselves at the forefront of this revolution, by working with a diverse range of partners to develop the energy networks of the future.

These networks are likely to be fully integrated, where traditional barriers between gas, electricity and heat are removed to create altogether more fluid and efficient ways to generate, store and transport energy.

Our new InTEGReL facility near Newcastle (see case study on page 33) aims to be an incubator for this technology, allowing forward-thinking businesses to test their ideas in real-world conditions, and on a big scale.

Gas can continue to play an important role in this integrated energy future, but chances are, we won't be relying solely on traditional natural gas (methane).

The market for biomethane, a green gas derived from waste products, is continuing to grow – and we increased the amount of green gas flowing through the pipes at our

biomethane plant in Howden in 2016.

Hydrogen, too, has tremendous potential. Burn it, and it generates heat and water, and that's all. Our H21 City Gate project uses the city of Leeds as a blueprint for converting the gas network to hydrogen. The project has been gaining interest worldwide with Australian gas networks keen to learn from us.

To gain buy-in to future energy solutions from funders and decision-makers, we have set up a dedicated Future Energy team at NGN – tasked with overseeing projects, lobbying, and helping people within and outside the business to get their heads around some of this mind-blowing, non-traditional thinking.

The fact that the Government recently announced a £25 million project to explore the use of hydrogen for heating homes, coupled with global interest in the project, shows that there is real momentum developing.

We're entering a fascinating period of change – and we intend to play a big role.

8,500

The number of homes that can be powered by biomethane plants now connected to our network.

Highlights

Putting waste to work: we increased the amount of green gas flowing at our biomethane site in Howden in 2016.

The road to hydrogen: we launched several new research projects to support our goal of transforming Leeds into a hydrogen city. We also welcomed our first hydrogen powered vehicle into our fleet.

Putting integrated energy systems theory into practice: our new development, demonstration and research centre – InTEGReL – will test and develop fully integrated energy solutions – lifting plans off the page and putting them in real-world scenarios

Stepping on the gas: we've been putting two compressed natural gas-powered work vans through their paces, to see if they offer a viable alternative to petrol and diesel power, and will be publishing our final report this summer.

CASE STUDY Clever stuff

Building a hydrogen future

Our H21 Leeds City Gate Project aims to power the great city of Leeds using hydrogen, and in the process, make the case for a future in which hydrogen is an everyday fuel.

We've now completed the first major piece of work to show that this goal is technically feasible, and can be done at a realistic cost.

But this is just the beginning. Working from our new dedicated H21 project office at Leeds City Council, we're drilling down into greater detail.

For example, we're looking at how hydrogen behaves with existing gas meters (including smart meters) and innovative ways of producing and storing hydrogen.

We've also teamed up with Keele University and Cadent (the new name for National Grid Gas Distribution) to examine how hydrogen and natural gas can work together in our pipes, and our customers' cookers and boilers.

These projects will help us fill any evidence gaps, and make an even more compelling case for a hydrogen future.

100%

The potential reduction in carbon emissions from heating and cooking at point of use, if the whole of the UK converted to hydrogen gas.

CASE STUDY Clever stuff

A test-bed for future energy solutions

InTEGReL is a full-scale development, demonstration and research centre, just outside Newcastle, dedicated to developing and testing, fully integrated, whole energy systems solutions on a big scale.

The 15-acre site will allow SMEs, universities and industry to work alongside specialist engineers to test concepts and technology in real-world conditions.

The centre is run by NGN, working with Northern Powergrid and Newcastle University and in partnership with the EPSRC **Centre for Energy Systems Integration (CESI).**

Work is underway on the design and construction of the site, and we expect to see the first starter projects take up residence before the end of the year.

Professor Phil Taylor, Director of CESI, said:



There is no 'magic bullet'. Meeting future energy challenges is complex and requires a multi-vector approach.

80%

The percentage of UK homes that use gas for heating and cooking.



CASE STUDY

Energising the North

The North of England has the potential to be a UK leader in future energy.

Our energy sector is already vibrant while our world-class cities and universities provide hubs for trailblazing research and development.

A new NGN report, Energising the North, highlights the economic opportunities available by continuing to drive this agenda.

The report was launched in January at an event in the House of Commons attended by MPs, government officials and representatives of the energy sector

Andrew Percy MP, then Minister for the Northern Powerhouse, said:



This report finds that the energy sector has the potential to increase growth across the North by up to £2.3bn a year by 2050. This growth would be built upon existing capabilities and exploiting opportunities in smart power, decarbonised gas and transport. By making the most of these opportunities, the Northern energy sector can create an additional 20,000 jobs.

You can find the report at

northernaasnetworks.co.uk/futures

CASE STUDY

Shale: what does it mean for gas distributors?

The Bowland Shale Formation in the North of England is one of the largest shale sources in the country.

While we are neutral in the debate around shale, it's important that we understand what it would mean for our network.

We are nearing the end of a comprehensive study looking at the technical implications of shale for our network, and how we could ensure the best interests of our customers and stakeholders.

If shale production does take off in the UK, we will have done our homework, and be ready for the challenge.

A workforce fit for the future

We're big on pipes at NGN, but we're even bigger on people.

Without motivated colleagues who believe in what they are doing, we can't hope to become the world-beating business we aspire to be.

We've improved conversations with our workforce, through regular get-togethers to discuss hot topics, and all-user telephone conference calls with Mark, our CEO.

Crucially, these sessions are not just talking shops – they lead to genuine change. For example, following colleague feedback, we've amended our terms and conditions so that colleagues get more paid paternity leave, additional paid leave

at Christmas and fairer incentives based on personal as well as team performance.

We also have a unique relationship with our contractors. We use local engineering firms to deliver all our mains replacement work, as we find their local knowledge and pride in the job benefits everyone. We've recently renegotiated new four-year contracts (with a further four year extension option) with these companies, underlying our commitment to these partnerships.

In our business, flexibility is vital; workloads can ramp up dramatically in winter months, when the network is under greater strain.

In response, we've developed a bespoke training course so that our engineering

teams can become qualified Gas Safe Registered engineers by building on existing skills and experience. This enables them to provide back-up to our full-time emergency engineers when needed.

We remain committed to graduate and apprentice schemes, giving young job seekers a flying start while future proofing our business. In 2017, we plan to recruit 16 new operational apprentices and nine apprentices in office roles.

And finally, we're investing in a major overhaul of our data systems, giving colleagues information at their fingertips, allowing better decision-making, each and every day.

Highlights

Not just a talking shop:

structured engagement sessions with colleagues have led to improvements in working conditions.

Pride in every pipe: our unique relationship with our mains replacement contractors has continued to deliver great value service, while supporting local businesses.

Data-driven: we're overhauling the way we store and share data, so that we can make better-informed decisions We're big on pipes, but we're even bigger on people.

CASE STUDY

Getting all our data in a row

Like many large organisations, the way we store and manage data needs improving.

Over the years, a variety of data systems have grown up, each independent of the other, so that getting the right information at the right time is no easy task.

We are mid-way through a major project to replace all these arcane legacy systems with a single, elegant solution. Colleagues will be able to access real-time information on just about any aspect of the business, through an easy-to-use interface.

Margaret-Mary Ling, who is managing this mammoth programme for NGN, said:



At home, it's easy to get the information you need on a computer or tablet. But once you get into work, things are often complicated and demoralising. It shouldn't be that way!

Through the delivery of 'Future WOW' and a range of cloud based applications this programme will make accessing data an easy, pleasurable experience, allowing us all to make better business decisions for our customers.

Under the bonnet, a huge amount of work is going on to clean up existing data and move it to the new system – and our new world of easy data will be rolled out towards the end of 2018.

CASE STUDY

Developing the engineers of the future

Muzamel Ahmed joined NGN as a graduate mechanical engineer in 2016, and is relishing the opportunity to build a career.

The variety of the work, combined structured programme of training and goal setting, has proved a great launch pad.

Muzamel said:



Starting my career, I knew only one thing: I wanted to work in engineering. As I had very little industry experience I honestly had no idea what areas I would enjoy. I sought out an employer who could provide exposure to as much variety as possible – this is what led me to NGN.

The graduate scheme has given me the perfect start to my engineering career with its well-balanced and structured targets.

The people here are friendly and keen to see you develop as a person. I have been thrown into a wealth of experiences from the start. This has been fantastic as gaining experience and knowledge as a recent graduate is key.





Clever stuff: using innovative technology and processes

Big ideas have never been more important in the utilities sector.

From greener ways to power homes and businesses to smarter, more affordable ways to repair pipes, we need to be imaginative to give our customers value for money and meet global challenges such as climate change.

At NGN, we are engaged in a constant process of innovation – taking ideas from the drawing board, through trials, and finally on to the streets of the North of England. You'll have found examples of these projects scattered throughout this report.

We're supported by Ofgem, our regulator, in this endeavour – who provides funding to help ideas get off the ground.



Bringing ideas to life

We have an established roadmap to guide projects from that initial lightbulb moment through to final implementation.



Business case

An initial examination of the benefits and costs



Research

A desktop project to see if the project stands up to greater scrutiny



Development

Time to hit the lab



Demonstration

Testing the concept out in the network



Implementation

Final roll-out.
Success!

Working with businesses

We have a great partnership with the Energy Innovation Centre (EIC), which acts as our dating agency with SMEs (Small to Medium Enterprises).

Through the EIC, we can put our briefs to a community of more than 2,000 businesses. It's a great way to source expertise and ideas, while also investing in local firms.

From our initial call to action to signing on the dotted line with an SME, the turnaround time is usually around six months. That's pretty quick!

Last year, we also held a series of innovation days with our supply chain, to brainstorm ideas to everyday problems we face. As a direct result, we have invested £500k in 11 new products to improve service and safety.

£500k
in 11 new products
to improve service
and safety

Letting our colleagues shine

Innovation projects can be a great opportunity to develop the skills and experience of colleagues, as well as improving services for our customers (see case study on page 9).

In 2016/17, we launched a new step-by-step guide for colleagues, to help them deliver innovation projects from start to finish.



Sharing the knowledge

Sharing knowledge from successful (and not so successful) trials allows the whole industry to move forward.

At NGN, we do everything possible to share what we have learned, and have also benefitted when our fellow utility companies make a breakthrough.

Richard Hynes-Cooper, NGN's Head of Innovation, said:



UK energy networks have developed an extremely open culture and regularly share knowledge through a variety of industry forums. This allows good ideas to be adopted nationally, delivering savings to our customers and providing opportunities for suppliers.

Delivering great value for money

Gas distribution makes up around 17% of an average gas bill. Our customers and our regulator expect us to use this money wisely, by running a tight ship and making smart investment decisions.

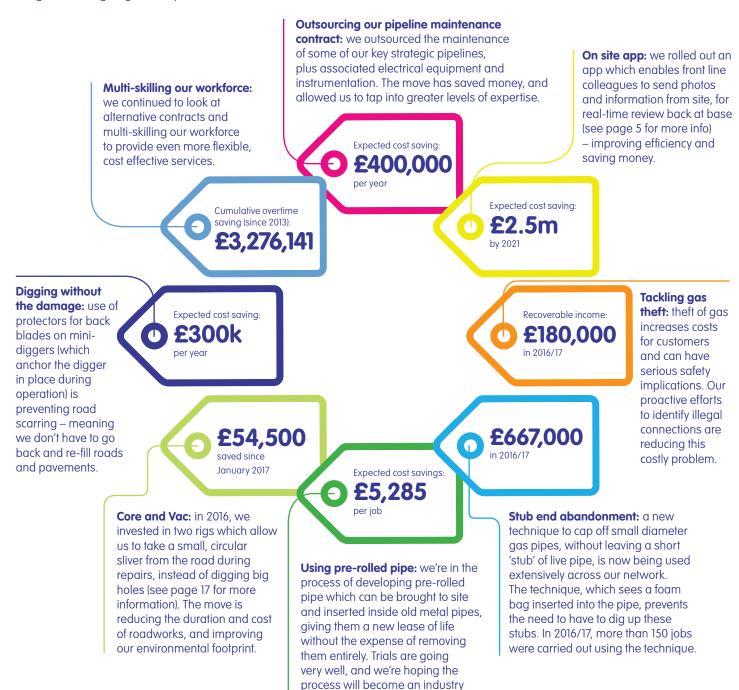
In 2016, we were the industry's most efficient gas distributor (based on our own benchmarking) a position we've held since 2005.

We received £264 million from Ofgem for 2016/17 to keep the North of England cooking on gas and spent £227 million.

That's an overall saving of £37 million that will be shared with our customers in the form of savings on their future bills.

Crucially these savings were made by working more smartly, not by cutting corners or reducing the quality of our customer service.

Here are just a few ways in which we've saved money, while improving services:



game changer when it goes live.

Financial rewards

The nature of our contract with our regulator, Ofgem, means we receive financial rewards for good performance, and penalties if we fail to hit targets.

We achieved significant rewards in 2016/17.

£2.1 million

for delivering great customer service. No penalties were received.

£5.9 million

for exceeding our targets for gas lost through pipe leaks.

£1.32 million

for our efforts to involve stakeholders in our activities and decision-making processes

£1.7 million

for meeting our customers' demands for gas, all year round.

We hope you found this report interesting.

Your views help us to keep improving our service, so please do drop us a line with any comments or suggestions.

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Smell gas? The National Gas Emergency Service is available 24 hours a day. Call 0800 111 999*