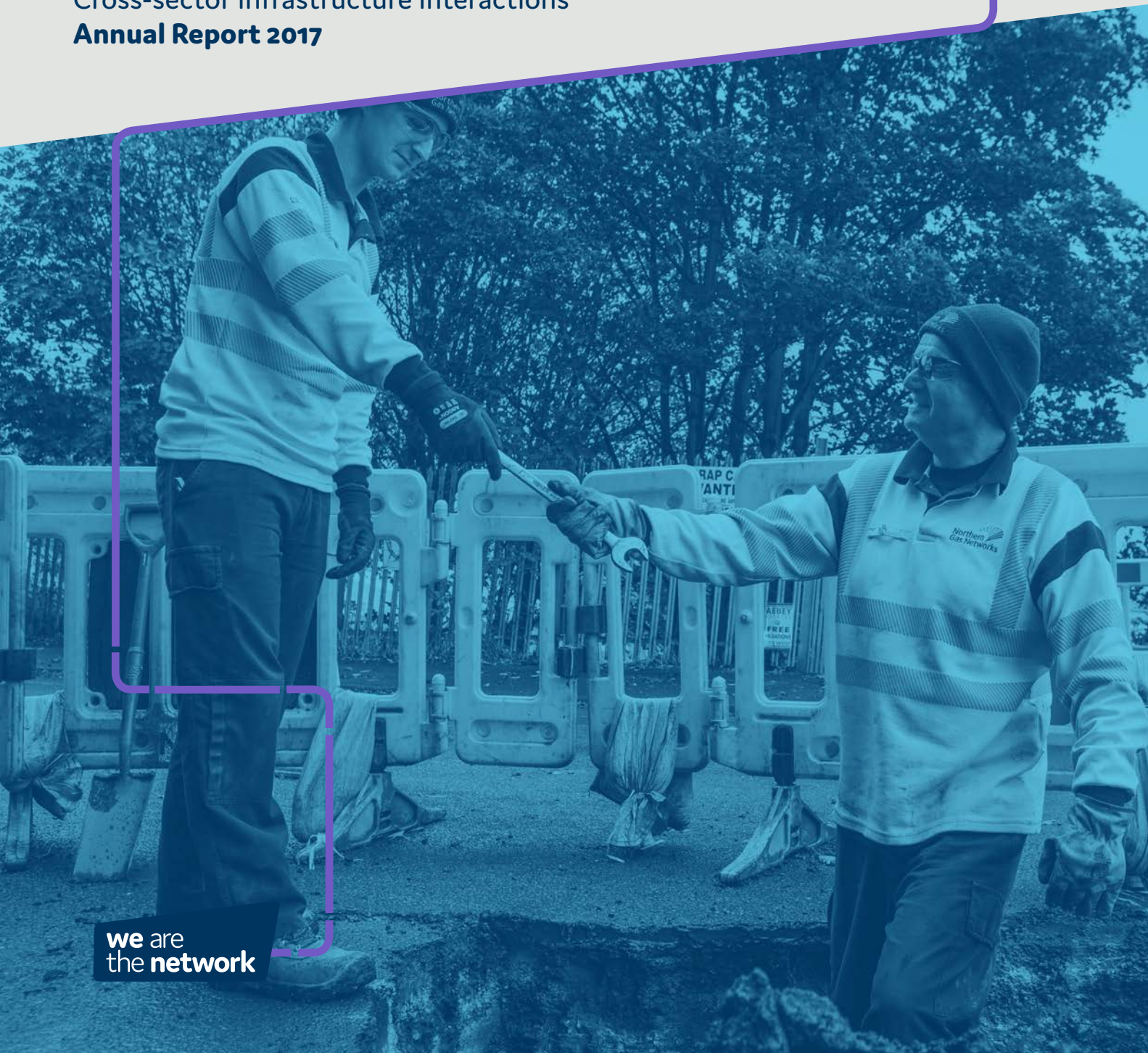


# Enabling Infrastructure Investment in the North

Cross-sector Infrastructure Interactions  
**Annual Report 2017**



**we are  
the network**

# Introduction

At Northern Gas Networks (NGN) we understand the challenges of dealing with large organisations when coordinating works. That's why we're working hard to make every contact with us as straightforward as possible. After all, we want organisations to engage with us, not just to avoid damage to our network and delays to their projects, but to keep everyone safe.

With the developing modern industrial strategy and the Government's commitment to join up central funding investment and local growth priorities, it's a time of opportunity for infrastructure in the North of England.

Now, more than ever, cross-sector organisations need to work together to upgrade digital, energy, transport, water, and flood defence infrastructure in our region.

Each day we  
deliver gas to

**2.7**  
**MILLION**

homes and businesses





## About this report

In 2015 the UK Regulators Network (UKRN) highlighted the types of problems faced when one organisation needs to work near assets (such as cables, pipes, and fixed equipment) operated by another organisation. Right there and then, NGN made a commitment to listen, learn and act on their guidance.

In the following pages we report back on how we've performed against the promises made in our first annual report, published in December 2016. We also share key case studies and set out our plans for the year ahead.

We recognise that no business is ever the finished article so this report also includes areas of improvement and explains how we plan to address these.

## Good to know

You will find our Access Statement enclosed with this report. It provides clear guidance for anyone looking to work near, cross or connect to our gas network.

Reflecting the good practice principles (see page 6), our Access Statement is reviewed annually and contains the contact details, pricing information and service standards for our most common types of interactions.

## Who is this report for?

### You, us, everyone!

We're keen to share this report widely, to encourage early contact and regular feedback. Our examples of good practice against the five principles also show you what to expect from NGN.

By taking a broad interpretation of cross-sector infrastructure interactions we continue to reflect upon our relationships with a range of key stakeholders including, but not limited to:

- Other utility companies
- Rail road network operators
- Highways authorities
- Local authorities
- Developers and construction companies
- Landowners
- Major energy users
- Biomethane producers
- Utility Infrastructure Providers (UIPs)
- Domestic consumer representative bodies

So, whether you represent one of these organisations, are a regulator or infrastructure investor, we've created this report with you in mind.

## About NGN

Since we started operating in 2005, we've been named the most cost-efficient of the UK's eight Gas Distribution Networks (GDNs) by our regulator, Ofgem, time and time again. We've been delivering great value for money to our customers as well as a whole host of social and economic benefits to our region.

We're recognised as a dynamic, passionate, conscious and people-focused team that safely and reliably delivers an affordable source of energy to over 2.7 million homes and businesses across the North East, northern Cumbria and much of Yorkshire.

Although we don't source the gas ourselves, fix boilers and appliances or get involved with plumbing, we work with those that do to deliver it through a vast network of underground pipes that are constantly

being invested in and upgraded. It's more complicated than it sounds so we're always exploring cutting-edge thinking, revolutionary engineering practices and world-class science to find new ways to provide sustainable sources of energy.

And while our customers may not see us very often, they can sleep soundly knowing that we're working around the clock to keep them connected and make sure they stay safe.

You'll find our pipes in 36 local authority areas and six Local Enterprise Partnerships and we work with them to make sure their plans for growth don't cause disruption to our network. We're also balancing priorities with other utilities including Northern Powergrid, Northumbrian Water, Yorkshire Water, Electricity North West and United Utilities

that share the land that houses our pipes. In addition, many of our pipes cross or are near to railway lines, rivers and bridges, as well as private land.

During the past 12 months we've provided guidance more than 5,000 times on how to work safely near our pipelines and other assets. We've had 358 enquiries about moving or adapting our assets in the past year, and our responses have helped 157 cross-sector organisations carry out projects safely.



### Meeting your needs

We use a variety of channels to update stakeholders on our performance, so you may be familiar with some of the information in this report. However, by pulling the relevant information together here, we hope that you'll have what you need, when you need it.

**If you have any comments or suggestions about the content, layout or format of this report please get in touch.**

**Email: [stakeholder@northerngas.co.uk](mailto:stakeholder@northerngas.co.uk)**

**Visit: [northerngasnetworks.co.uk/get-involved](https://northerngasnetworks.co.uk/get-involved)**



Delivering an affordable source of energy to over 2.7 million homes and businesses across the North East, northern Cumbria and much of Yorkshire.

# Our approach



We believe that by getting the basics right we can build a continued and trusted dialogue between cross-sector organisations. That's why we're working with stakeholders to ensure that their experiences of NGN consistently reflect the good practice principles for managing infrastructure interactions:

<b>Principle 1:</b>	The [stewardship] role of infrastructure network operators.
<b>Principle 2:</b>	Efficiency, economy and safety.
<b>Principle 3:</b>	Transparent processes and practice.
<b>Principle 4:</b>	Clear, transparent and appropriate pricing.
<b>Principle 5:</b>	Continuous learning and best practice.

You said:

**'Recognise the stewardship role we play and that effective planning and delivery of new infrastructure, across all sectors, benefits everyone.'**  
(Principle 1)

2017

**In 2017 we have:**  
helped to maximise the value of Highways England's project to upgrade the A1M Coal House Roundabout in Gateshead (page 14).

2018

**In 2018 we will:**  
continue to work with the other GDNs and suppliers to support the roll out of smart-meters.

You said:

**'Act with efficiency and economy when interacting with clients'**  
(Principle 2)

2017

**In 2017 we have:**  
been speaking to Utility Infrastructure Providers (UIPs) about a range of key processes, including large load enquiries. In November 2017, we held a best-practice workshop to gain a deeper understanding of the challenges these stakeholders face and identify opportunities to work better together.

*"Very good session and allowed a good insight into Northern Gas plans moving forward"* – **Steve Naylor, National Grid**

2018

**In 2018 we will:**  
continue to work with Utility Infrastructure Providers to measure and improve the services we deliver.

**78.5%**  
attendees rated the  
UIP workshop  
**9 or 10 out of 10!**

**You said:**

**'Follow a process that is transparent, easy to follow, appropriately resourced and commits to explicit service standards'**

(Principle 3)

**2017**

**In 2017 we have:**

worked hard to understand the needs of those enquiring about gas to power generation and have recruited additional analysts and a specialist account manager to better serve these customers (page 13).

**2018**

**In 2018 we will:**

continue this tailored approach, reviewing our processes and practices around cross-sector interactions to ensure they are fit for purpose.

**You said:**

**'Fees or charges should be clearly explained, reflect reasonable and appropriate cost and risk'**

(Principle 4)

**2017**

**In 2017 we have:**

worked with finance and systems control colleagues to develop pricing and supply assurance strategies for connecting biomethane plants to our network (page 13).

**2018**

**In 2018 we will:**

act on feedback from our Shippers and Suppliers providing rationale and information about changes that affect pricing, metering and connections processes.

**You said:**

**'Commitment to training and support of staff managing interactions'**

(Principle 5)

**2017**

**In 2017 we have:**

provided business writing training for more than 100 colleagues across the business who regularly engage cross-sector stakeholders.

**2018**

**In 2018 we will:**

continue to use stakeholder insights to inform colleague training and improve relevant cross-sector interactions. For instance, from our 2017 research we have identified around 20 potential actions to improve our relationships with Shippers and Suppliers.

**You said:**

**'Lessons and experience of best practice are proactively gathered and applied'**

(Principle 5)

**2017**

**In 2017 we have:**

reviewed the access statements and annual reports published by other cross-sector organisations to identify areas of best practice.

**2018**

**In 2018 we will:**

work with our Infrastructure North (IN) partners (Northern Powergrid, Northumbrian Water and Yorkshire Water) to consider opportunities for joint engagement with cross-sector stakeholders including local authorities, highways authorities and developers.

# How we measured up in 2017

Every day we help cross-sector organisations to connect to, work safely near and understand more about our network. Here, we focus on the key services we provide and detail our performance during the past year.



**“This is far and away the quickest acknowledgement and processing of a GT2 application we’ve experienced. It’s genuinely refreshing to see this level of service from a GT [Gas Transporter]. Keep up the good work, and hopefully we’ll be fitting a lot more meters on your network!”**

**Niall Hanrahan, Meter Engineering Manager, Squire Energy.**

## Making the right connection

From April 2016 – March 2017 we assisted organisations, large and small, with new connection requests; meeting and often exceeding their expectations.

NGN Team	Enquiry type / Service	Standard of service	Legal/ regulatory/ internal requirement	Target	Performance April 2016 – March 2017	Potential compensation to customer
Connections	Non-standard quotations for connections >275kWh issued	21 working days	Regulatory	99.6%	<b>100%</b>	£20 followed by an additional £20 per working day thereafter up to the quotation sum or £500 whichever is lowest.
Connections	Land enquiries response for connection >275kWh	5 working days	Regulatory	99.6%	<b>99.4%</b>	£40 followed by an additional £40 per working day thereafter up to £500.
Connections	Commencement and completion dates provided for connections >275kWh	20 days	Regulatory	100%	<b>100%</b>	£40 followed by an additional £40 per working day thereafter up to the quotation sum or £500 whichever is lowest.
Connections	% of connection jobs substantially completed on date agreed with customer	4-8 weeks	Regulatory	95%	<b>98.5%</b>	From £20 to £9,000 depending upon contract value.



We're proud of our strong performance against these regulatory requirements (also known as Guaranteed Standards of Service or 'GSOS'). However, we also understand the impact of falling short. **That's why, since July 2017, we have voluntarily doubled the amount of compensation we will pay individuals and cross-sector organisations (up to the existing caps) should we fail to meet our targets.**

288

non-standard quotations  
above 275kwh issued  
within 21 working days  
(100% of requests).

## Moving our assets

So far in 2017, we have received 230 quotation requests from customers (individuals and organisations) asking us to move our assets to enable their projects. Approximately 51% (117) of these were from cross-sector organisations.

NGN Team	Enquiry type / Service	Standard of service	Legal/ regulatory/ internal requirement	Performance from 1 January - 26 October 2017
Diversions	Paper based form issued	24 hours	Voluntary but public	N/A – all customer requests received via online enquiry form.
Diversions	Quotation issued	45 days	Regulatory	Approx 56%

**Between 1 January and 26 October 2017, we received 117 quotation requests from cross-sector organisations.**

The table below shows the types of organisations they came from:

Cross-sector organisations	Quotations requested
Developer	82
Highways Agency	2
Local Authority	33
Total	117

Turn to page 14 to learn how our approach to a diversion enquiry added value to the Highways England A1 motorway upgrade project.



# A tailored approach

During 2016/17 we reviewed our 'Before you dig' process and suite of communications so that the process is transparent and easy to follow for everyone.

Our dedicated team still takes time to consider each request for gas infrastructure plans on its own merit and safety remains the overriding priority. However, since August 2017 the more complex requests are managed by an appropriate field-based colleague:

- Complex queries relating to the presence of low and medium pressure mains are managed by our experienced local operational site managers.
- Complex queries relating to intermediate or high pressure mains are managed by our highly qualified pipeline technicians.

This approach helps us to build strong relationships with stakeholders. They speak to a direct NGN contact who guides them through the end-to-end process.



NGN Team	Enquiry type / Service	Standard of service	Legal/ regulatory/ internal requirement	Cost of service of customer
Plant protection	Initial enquiry including access to NGN maps	10 working days	Voluntary but public	<b>FREE</b> – except in the following circumstances  £25+VAT for companies who charge their customers for the service  £65+VAT for Deed of Grant of Easement

Each year our Plant Protection Team receives an average of 5000 individual requests for access to our network maps. In 2016/17 over 75% of these were granted free of charge.

We want to continue supporting cross-sector infrastructure projects, so we don't normally charge these organisations for access to our maps. In the interest of efficiency and economy we encourage use of our online portal. Enquirers can request access by emailing: [plantprotection@northerngas.co.uk](mailto:plantprotection@northerngas.co.uk). Whenever a request is received, the team checks whether the organisation already has a licence to access NGN maps and if so, automatically extends it to cover the new enquirer.

However, there will remain occasions when we need to charge for the service we provide. Since December 2016, we have included the standards and pricing around accessing our network maps in our Access Statement.

Regular map users who responded to our 2016 survey highlighted the importance of accessibility and suggested it'd be helpful to access multiple organisations' maps in a similar way. That's why, in 2017, we worked with our Infrastructure North partners (Northern Powergrid, Northumbrian Water and Yorkshire Water) to better understand each other's processes and share best-practice.

# A bird's eye view on safety

## Pothole Partnership

We pride ourselves on making good any holes we dig in the highway during our works. However, if potholes are present before we begin, contractually, we are not able to fill them in.

We know that customers and our colleagues find this frustrating so we're partnering with Cumbria County Council to trial a new approach. In early 2018, our teams will work together to test whether the local highways authority can repair existing potholes at the same time as we complete our reinstatement work.

Safety is always our number one priority so we will never just rely on other organisations contacting us about their planned works.

We work with specialist company Heli Air to proactively conduct aerial surveys

of our high pressure network. We regularly hire a helicopter to undertake approximately 83 sightings per flight. Our on-board engineer is specially trained to identify potentially dangerous works and make decisions about how to respond.

Our tailored approach, along with our improved 'Before you dig' communications, are already having an effect, with around a 55% decrease in the number of potentially dangerous works sighted between April 2016 and March 2017, compared with the same period in 2015/16.

The table below shows how we responded to 393 potentially dangerous sightings last year:

NGN Team	Enquiry type / Service	Standard of service	Legal/ regulatory/ internal requirement	Estimated number between April 2016 and March 2017	Performance
Plant protection	Heli Air sighting – Direct threat	Immediate intervention	Legal requirement – voluntarily reported through UKOPA	17 (4.33%)	<b>100%</b>
Plant protection	Heli Air sighting – works within 3m of NGN assets	Site visit within 24 hours of sighting	Legal requirement – voluntarily reported through UKOPA	156 (39.69%)	<b>100%</b>
Plant protection	Heli Air sighting – works approaching 3m of NGN assets	NGN aware of, not requiring site visit. Completed by desk top study.	Legal requirement – voluntarily reported through UKOPA	220 (55.98%)	<b>100%</b>

## Happy highways

Throughout 2016/17, we haven't been subject to any local authority improvement notices - a testament to the improved quality of our reinstatement work. By avoiding defects and potential future potholes we can continue to add value to Highways England's network.

NGN Team	Enquiry type / Service	Legal/ regulatory/ internal requirement	No Received YTD	No Completed YTD	No Outstanding at end of period (April 2016 – March 2017)	Charges Received in period (2016/17)
NRSA	2 Hr 'Dangerous' Defects	Non-Statutory Code	217	217	0	0
NRSA	4 Hr 'Dangerous' Defects	Non-Statutory Code	93	93	0	0

Our reinstatement manager continues to work closely with local highways teams to identify new ways of working together. This, along with our own internal quality audits, which we share with local planners, is helping to drive service improvements that benefit all who rely on our road infrastructure.



# The right information at the right time



Our operational teams continue to speak with local authority planners and highways agencies on a daily basis, feeding their views into our short and medium term decision making processes.

Every year we publish our Long Term Development Statement (LTDS), which provides a ten year forecast of transportation system usage and likely system developments. This is available on our website for cross-sector organisations considering connecting to the gas network, entering into transport arrangements, or looking to identify and evaluate opportunities.

Local Authority plans are requested and managed by our Distribution Network Analysts who reflect these longer-term plans in our network modelling process. This helps us to establish potential future loads and identify any pipe reinforcements that may be needed in preparation for future demand.

## Protecting our pipelines

We are proactive in preventing damage to our high-pressure network. At the heart of this is educating stakeholders about the 'Before you dig' process and the risks of not following it correctly.

32 of the local authorities in our network have a high pressure gas pipeline running through their area. At least once every three years, our Asset Integrity Engineers visit each organisation to:

- make sure we hold up to date contact information
- confirm the location of the high pressure pipelines in their area
- advise how to contact us for help with planning enquiries
- share knowledge and best practice with planning teams and encourage them to pass information onto developers
- explain that damaging an asset could cause a major incident and ultimately endanger life
- provide a friendly face.

Between January and December 2017, our engineers held face-to-face sessions with 15 local and other authorities including Durham Wildlife Trust, Lake District National Park Authority and North York Moors National Park Authority.

Raising awareness is key to protecting local communities - not just our pipes. In 2018, we will consider new ways to share the 'Before you dig' message with key stakeholders.



# Supporting green energy growth

This year we've received 55 new enquiries about connecting new biomethane projects to our network. While we do receive direct requests, cross-sector enquiries were also channelled through partners such as the Anaerobic Digestion and Bio-resources Association (ADBA) and the Energy Networks Association (ENA).

**Our key account managers provide a tailored service to each producer and where requested, we complete a full capacity study (for <7 bar connections) within 30 working days.**

NGN Team	Enquiry type / Service	Standard of service (working days)	Legal/ regulatory/ internal requirement	Performance (April 2016 – March 2017)
Biomethane	Initial capacity Study < 7 bar (Medium and Intermediate pressure)	15	Internal/ voluntary	98%
Biomethane	Full capacity study < 7 bar (Medium and Intermediate pressure)	30	Internal/ voluntary	100%
Biomethane	Project implementation	N/A	N/A	18% of initial enquiries

Our specialist account managers guide producers through our five stage process to meet tight deadlines on complex projects, and help them achieve their goals. In 2016/17 we successfully completed two Network Entry Agreements to our network.

In addition, our specialist team has worked with finance and systems control colleagues to develop pricing and supply assurance strategies for connecting plants to our network. These strategies reflect our fair treatment of cross-sector organisations by applying a consistent approach, whilst taking account of individual project requirements and specific network constraints.

## Lessons learned

From our experience of getting biomethane to grid we understand the complexities customers face for large projects. That's why we've worked hard this year to understand the needs of those enquiring about gas to power generation.

It was a challenge initially to respond to the volume of enquiries received (approximately 800 in the past year), but we've worked with key stakeholders to build processes and service standards to meet their needs.

For instance, one organisation regularly makes speculative enquiries and we now understand that they are initially only looking for an indication whether a connection could be viable. Therefore, to speed up our response to their initial enquiry, we have agreed to perform basic network analysis free of

charge at that stage and provide one of three responses:

- 1) Connection appears viable and it's likely no network reinforcement will be needed
- 2) Connection appears viable but network reinforcement at a likely cost of <£250k will be needed
- 3) Connection appears viable but network reinforcement at a likely cost of >£250k will be needed

At this stage we also advise how to progress the enquiry, including the fees we will charge for providing further details.

We have also recruited additional analysts and a specialist account manager to ensure we can continue to meet the increasing demand for these complex projects. In October 2017, the first large load project of this type was commissioned on our network.

# Investing in everyone's future



## Smart meters

We're continuing to work with the other GDNs and suppliers to better understand the roll-out process and opportunities to minimise the impact on customers.

## TransPennine rail electrification

We have worked with Network Rail and local landowners to plan the diversion of a high pressure pipeline at Ridge Road, Leeds.

The diversion work is scheduled for Summer - Autumn 2018.

## High pressure diversion during 2017

We engaged a range of stakeholders around a project to divert a high pressure pipeline near our head office at Thorpe Park, Leeds. This included working with the developer, GMI Construction Group PLC, to create a video showing stakeholders our diversion work. You can watch the video on GMI Construction Group's YouTube page.

This was a complex site in a highly populated business and residential area. Additionally, it involved crossing Junction 46 of the M1 and there was no physical diversion route under the railway line. We therefore took the time to find ways to reconfigure our high pressure network and make the most of our £4m investment. Feedback from stakeholders has been positive and construction will be completed by the end of 2017.

## A1M Coal House Roundabout, Gateshead.

We're supporting Highways England's motorway upgrade to this key stretch of the A1. As well as providing plans for the specific request to divert a high pressure gas pipeline, we suggested two other approaches to the project that would make the £5m investment go even further.

Highways England were impressed with the additional effort we put in and accepted an alternative option that will add the most value. This involves NGN investment but makes the most of the rechargeable work.

## InTEGReL

During the past year we have led partners including Northern Powergrid, Newcastle University and Siemens in the development of our unique integrated energy facility in Gateshead.

Officially launched in September 2017, InTEGReL brings together academics and engineers to deliver breakthroughs in whole energy solutions. It will allow energy researchers and industry to carry out grid scale trials and experiments of coupled gas, electricity and heat systems for the first time.

The underpinning philosophy of InTEGReL is that a 'whole systems' approach to energy is required to deliver what stakeholders want in the delivery of decarbonisation of heat, energy storage and transport. We aim to identify the most affordable and practical solution to moving customers onto cleaner, low cost energy. **You can find out more online:**  
<http://www.northerngasnetworks.co.uk/integrel>

# Setting the service standards

We are constantly challenging ourselves to make improvements. In addition to measuring standards set through regulation and other codes of practice, we measure and benchmark our business against the best within and outside our industry to make sure we are always improving.

**AA1000SES** - We have been externally assuring our engagement against the AA1000 Stakeholder Engagement Standard (SES) since 2012. We're using the 2017 audit recommendations to drive further improvements and we will continue to ask stakeholders what they want to know beyond the technical, regulatory requirements of OFGEM.

**Council of European Energy Regulators (CEER)** - In order to deliver the best service possible we achieved the 12 CEER service standards in 2015, which will apply to us from 2021. The standards include; time taken to respond to a customer request for a new grid connection, provision of information to customers on connection, activation and disconnection and customer communication channels.

**ROSPA safety** - In August 2017, we were awarded a prestigious gold award from the Royal Society for the Prevention of Accidents (RoSPA), the most sought-after accolade in the health and safety industry by organisations from every sector.

The non-competitive gold medal recognises how we have sustained high standards of health and safety over the past five years.

**ISO 55001** - is a framework for asset management systems that help us to proactively manage the lifecycle of our assets, from acquisition to decommission. The system helps us manage the risks and costs associated with owning assets in a structured, efficient manner supporting continual improvement and ongoing value creation. We were successfully accredited against the standard in 2015, 2016 and 2017.

**Institute in Customer Service (ICS)** - Following a rigorous six-day assessment we achieved a ServiceMark from the Institute in Customer Service (ICS) in 2014. With a score of 83.1 we also ranked strongly in the ICS Customer Satisfaction Index. In 2016, we conducted our mid-point review with ICS.

**ISO 14001:2015** - we are assured against the updated 2015 environmental management standard; helping us to become more environmentally friendly, reduce our consumption, waste and costs. It demonstrates our commitment to 'understanding the needs and expectations of interested parties', including other cross-sector organisations.

**"The RoSPA Awards are the most prestigious in the world of occupational health and safety, and held in high regard around the world, as winning one demonstrates an organisation's commitment to maintaining an excellent health and safety record."**

Julia Small, RoSPA's Head of Awards and Events





## Next steps

We will continue to review our own practices and other cross-sector organisations' reports to identify opportunities to learn from and work better with them.

If you'd like to share a copy of your organisation's report or provide feedback about anything contained within ours, please get in touch:

**Email:** [stakeholder@northerngas.co.uk](mailto:stakeholder@northerngas.co.uk)

**Visit:** [northerngasnetworks.co.uk/get-involved](https://northerngasnetworks.co.uk/get-involved)

